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**NSARB 2023-001**

**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 expansion for the cultivation of Atlantic salmon (*Salmo salar*) - AQ#1205x in Liverpool Bay, Queens County

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**CLOSING SUBMISSIONS ON BEHALF OF KELLY COVE SALMON LTD**

**November 14, 2025**

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## OVERVIEW

1. The Applicant, Kelly Cove Salmon Ltd. (“**KCS**”), makes the following closing submissions in support of its application seeking a lease boundary amendment to encompass the existing 14 cages, mooring lines and anchors as well as six additional cages for the cultivation of Atlantic salmon (*Salmo salar*) at Coffin Island AQ#1205x in Liverpool Bay, Queens County (the “**Coffin Island Farm**” or “**Farm**”, and the “**Application**”).
2. Since 2011, KCS has successfully farmed Atlantic salmon at the Coffin Island Farm. It took over the license and lease in 2012, which were renewed in 2020 and are valid until April 1, 2030, and April 1, 2040, respectively. If the Application is granted, it will result in a 2 x 10 cage configuration and increased production to ensure the long term environmental and financial sustainability of the Farm.<sup>1</sup>

N. Feindel Affidavit, Exhibit [#055](#), paras 5 – 6

Aquaculture Amendment Application Form, Application Package Vol 1, Exhibit [#005](#), p 7

3. The current lease area is 3.99 HA and does not incorporate the 14 cages, moorings and anchors as required. If the Application is granted, the lease area would be 40.70 HA to incorporate the existing infrastructure and the six additional cages.
4. Indeed, as illustrated in the proposed site survey plans, much of the lease area is for the moorings and the anchors. The six additional cages will lead to a small incremental increase in the Farm’s production and footprint of approximately 2.2 HA (i.e. 60.96 m x 60.96 m per cage for 6 cages). Put differently, while the lease area will increase substantially, the proposed expansion will not lead to a 10-fold increase in production.

Site Development Plans, Application Package Vol 2, Exhibit [#006](#), p 1021 and 1023 / PDF p 443 and 445

5. As set out in the Department of Fisheries and Aquaculture (“**DFA**”) Report on Outcomes of the Performance Review (“**Performance Review**”), the Coffin Island Farm has been productive since KCS was assigned the lease and license. Apart from the lease boundary,

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<sup>1</sup> KCS initially also sought the addition of two new marine finfish aquaculture farms for Brooklyn Point Q#1432 and Mersey Point AQ#1433, each having 20 cages, in Liverpool Bay. Following receipt of submissions from the parties, on July 18, 2025, the Board granted KCS’s request to split the Application and scheduled the hearing for Coffin Island AQ#1205x and placed the applications with respect to Brooklyn Point AQ#1432 and Mersey Point AQ#1433 in abeyance.

it is in compliance and complaints received from the public with respect to debris and sound did not result in an offence ticket or charges.

Performance Review, Exhibit [#007](#), p 3 and 5

N Feindel Affidavit, Exhibit [#055](#), para 6

6. As in *Rattling Beach*, [NSARB 2021-001](#)<sup>2</sup>, the evidence clearly establishes that KCS has been pressing to correct the lease boundary since 2013 and that, in part, brings the parties before the Nova Scotia Aquaculture Review Board (the “**Board**”). The delay was due to regulatory review and overhaul.

J Nickerson Affidavit, Exhibit [#044](#), at paras 12 – 16<sup>3</sup>

N Feindel Affidavit, Exhibit [#055](#), paras 5 – 17

Performance Review, Exhibit [#007](#), p 2 – 3

7. Importantly, on June 3, 2016, DFA confirmed that KCS could continue to operate the Coffin Island Farm, as is, until the decision on the boundary amendment was adjudicated.

N Feindel Affidavit, Exhibit [#055](#), para 13 and Exhibit E

8. In 2019, KCS filed its Application. Following which, DFA undertook its review and consultations with the relevant provincial and federal departments and agencies, as required under section 14 of the [Aquaculture Licence and Lease Regulations](#) (“**Regulations**”)<sup>4</sup>. DFA also initiated consultation with the First Nations.

9. Notably, the Department of Fisheries and Oceans (“**DFO**”) did not require any further mitigation measures for potential impacts with other fisheries or wild salmon. Indeed, DFO concluded that the lease area was relatively small to the fishing grounds of the other species in Liverpool Bay.

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<sup>2</sup> KCS’s Book of Authorities (“**BOA**”) Tab A.

<sup>3</sup> Mr. Nickerson is no longer a KCS employee. On September 4, 2025, the Board granted KCS’s request to allow Micheal Szemerda, Global Chief Sustainability Officer at Cooke Inc., to affirm the contents of Mr. Nickerson’s affidavits “in relation to reference to KCS’s operations and procedures, references to company records and outlining of the history of the current application in both affidavits.” This includes Mr. Nickerson’s affidavit sworn on January 22, 2024 and only paragraphs 1-25 of his rebuttal affidavit sworn on February 16, 2024. Accordingly, Mr. Szemerda responded to questions on cross-examination with respect to KCS’s operations and procedures at the hearing.

<sup>4</sup> BOA Tab D.

10. On August 9, 2023, the Honourable Steve Craig, Minister of DFA, referred the Application, pursuant to section 49(c) of the *Fisheries and Coastal Resources Act*, SNS 1996, c 25<sup>5</sup> (“**Act**”) for a decision before the Board for an adjudicative amendment.

Referral Letter, Exhibit [#001](#)

11. The applicant KCS, the respondent DFA, and the **Intervenors** 23 Fishermen, Protect Liverpool Bay Association (“**PLBA**”), Kwilmu’kw Maw-klusuaqn (“**KMK**”), and Region of Queens Municipality (“**RQM**”) appeared before the Board on October 7-10, 2025, in Bridgewater, NS and virtually on October 31, 2025.<sup>6</sup>
12. In advance of the hearing, the parties submitted issue lists, witness lists and affidavit evidence, including expert reports. The record for this Application also includes the public written submissions. At the hearing, the Board heard statements from members of the public and testimony of certain affiants on cross-examination. Multiple exhibits were also entered into the record. An index of all the exhibits is attached as **Schedule A**.
13. On this Application, KCS submits that the Board must consider the following two issues:
- (a) Did the Crown have a duty to consult with the Mi’kmaq of Nova Scotia? And if yes, did the Crown fulfill its duty?
  - (b) What impact, if any, will the proposed lease and license amendment to the Coffin Island Farm have in consideration of the factors enumerated under section 3 of the Regulations (the “**Section 3 Factors**”)?
14. With respect to the duty to consult, KCS reserves its right to make submissions following receipt of KMK’s submissions.
15. Turning to the Regulations, it is respectfully submitted that the evidence before the Board strongly supports a finding in favor of the Application on each of the Section 3 Factors.

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<sup>5</sup> BOA Tab C.

<sup>6</sup> The Queens Recreational Boating Association (“**QRBA**”) was granted intervenor status but did not participate in the Application. On October 6, 2025, QRBA advised that it did not intend to participate but reserved its right as intervenor to participate in the hearings for Brooklyn Point AQ#1432 and Mersey Point AQ#1433, if and/or when scheduled.

16. As discussed in further detail below, the evidence supports the following conclusions with respect to the Application and proposed expansion of the Coffin Island Farm:
- (a) It is an optimum use of marine resources to efficiently produce thousands of kilograms of food in only approximately 1.13% of Liverpool Bay.
  - (b) The Farm is a significant economic contributor to the local community of Liverpool, Queens County and the Province. KCS has 12 fulltime equivalent positions in Liverpool to operate the Farm. The Farm's sustained viability greatly benefits the community and Province.
  - (c) The Farm successfully operates in tandem with the other commercial and First Nations fisheries, including lobster, mackerel and herring. There is no evidence that the Farm has displaced or negatively affected the lobster population or industry in Liverpool Bay, or the elver population or industry in the Mersey River.
  - (d) The Farm infrastructure is engineered for the specific oceanographic conditions in Liverpool Bay. Its performance demonstrates that salmon farming can be safely done at this location. Notably, the Farm infrastructure remained intact following Hurricane Lee.
  - (e) The proposed expansion will not negatively impact other users of Liverpool Bay.
  - (f) The proposed expansion was approved by Transport Canada and does not impact the public right of navigation.
  - (g) The Mersey River wild salmon population is extirpated. KCS's containment management as well as its fish health and sea lice monitoring mitigate the low risk, if any, of the Farm to the wild salmon population, if any, in or around Liverpool Bay.
  - (h) There are no other aquaculture sites in the public waters surrounding the Farm. Should KCS seek to proceed with either or both of Brooklyn Point AQ#1432 or Mersey Point AQ#1433 sites, the Board will have the opportunity to consider the impact, if any, of the proposed site(s) with consideration of the Farm under this factor.

17. The Section 3 Factors strongly support the Board deciding in favor of the Application under section 49 of the Act.

### **SECTION 3 FACTORS**

18. As held by the Board in ***Rattling Beach***, the issue to be determined with respect to KCS's proposed expansion at the Coffin Island Farm is what, if any, impact it will have, in consideration of the Section 3 Factors. The hearing is not a platform for general opposition to marine finish aquaculture. At para 51, the Board held as follows:

*[51] It is essential to point out that the role of this Board is not to provide a platform for general opposition to, or support of, open pen aquaculture in general. Rather, we must consider **this** application (KCS / Rattling beach farm) in relation to **this** site, and the impact, if any, of changing the lease boundary. To this question, and this question only, we must apply the eight factors set out in S..3 of the regulations. ...*

[emphasis in the original]

#### **(a) The Optimum Use of Marine Resources**

19. In ***Rattling Beach***, the Board concluded that a 20-cage salmon farm constituted an optimum use of marine resources because it efficiently produced thousands of kilograms of food in a small portion of the Annapolis Basin. The Board held as follows:

*[55] The use of the site to efficiently produce thousands of kg of food is surely an optimum use of the small portion of the Annapolis Basin. Salmon farming converts feed to food much more efficiently, and with a much smaller footprint, than does, for example beef production.*

20. The same is true here.
21. The proposed expansion of the Coffin Island Farm would represent only approximately 1.13% of Liverpool Bay. The proposed lease area is 40.7 HA of the 3,590 HA of open boundary in Liverpool Bay (as estimated by DFO).

DFO CSAS Report, Report on Outcomes of Consultation, Exhibit [#004](#), at p 193-194

22. The increase from the existing lease mostly reflects the re-drawing of an imaginary line to encompass existing Farm infrastructure, including moorings and anchors. This currently consists of 14 sea cages in a 7 x 2 grid cell configuration. As discussed above, the dimensions of an individual cage grid are 60.96 m x 60.96 m.

Site Development Plan, Development Plan, Application Package Vol 2, Exhibit [#006](#) at p 789 / PDF p 211

23. KCS's proposed expansion would add six cages, resulting in a 10 x 2 configuration. This means the Farm would lengthen an additional 183 m parallel to Coffin Island, maintaining the width of approx. 122 m associated with the 2-cell formation, increasing the Farm footprint by approximately 2.2 HA (i.e. 60.96 m x 60.96 m per cage for 6 cages).
24. At the proposed maximum production levels of 33,000 salmon per cage, this 2.2 HA expansion would increase maximum production by 198,000 salmon per grow out.

Section 2.1 of Development Plan, Application Package Vol 1, Exhibit [#005](#), p 79 - 80

J Nickerson Affidavit, Exhibit [#044](#), at Exhibit H, PDF p 81 - 82

**(b) The Contribution of the Proposed Operation to Community and Provincial Economic Development**

25. The Coffin Island Farm is a significant economic contributor to (1) the community, including, the local Liverpool area and Queens County, and (2) the Provincial economy.
26. KCS has operated the Farm for 14 years, employs many people and contracts with multiple local companies. In addition to its 12 fulltime equivalent positions in Liverpool who operate the Farm, KCS employs and contracts with a variety of suppliers including divers, mechanics, boat repair facilities, hardware providers, welders, heavy equipment operators, crane operators, marine supplies, fuel distribution companies, environmental consultants, electricians, boat brokers, boat builders, engine suppliers, hotels, restaurants, and ferries.
27. KCS is the Canadian farming division of Cooke Aquaculture Inc. ("**Cooke**") based in Black's Harbour, New Brunswick. As set out in the Development Plan, in 2017, Cooke spent \$231 million on supplies and services in Atlantic Canada, which included 309 Nova Scotia companies.
28. As of October 2025, Cooke / KCS employs 323 people in Nova Scotia which annually results in: \$17.7 million in employment income; \$10.4 million in taxation; and \$19.4 million in consumer spending.

Section 2.3 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), p 82

Amendment to paras 30 - 32 of J Nickerson Affidavit, Exhibit [#084](#)

29. In addition to commercial economic benefits, Cooke and KCS provide financial support and resources to Queens County and the Province, including through monetary donations of \$121,000 to the South Shore Regional Hospital expansion project, \$11 million to universities, and to local food banks, as well as through KCS Staff volunteering in local community organizations. Recently, in June 2023, Cooke and KCS significantly supported the community and emergency services during the Shelburne County wildfires.

J Nickerson Affidavit, Exhibit [#044](#), para 37 – 42 and Exhibit K

30. RQM alleges that the proposed amendment will negatively impact its brand integrity and investment in tourism and relies, in part, on the expert report of Susan McGibbon.

McGibbon Affidavit, Exhibit [#050](#), Exhibit A, PDF p 12

31. In her report, Ms. McGibbon stated that RQM invested \$4 million to relaunch its brand. This is incorrect. As explained in the affidavit of Richard Lane, the Director of Economic Development of RQM, the total budget for his department from 2019 – 2024 was \$4,285,092.11 of which \$337,568.28 was attributed to the rebranding initiative.

Lane Affidavit, Exhibit [#070](#), at Exhibit A, PDF p 4

32. Ms. McGibbon opined that new fish farms in Liverpool Bay would be a challenge and oppose RQM's tourism strategies. On cross-examination, Ms. McGibbon admitted that she did not conduct any research or surveys, or review case studies in support of her opinion. She agreed that her opinion was presented without empirical foundation.

33. In contrast, following his research and case study, Stephen Coyle of ATN Strategies opined that there is a robust tourism industry in Liverpool Bay which co-exists with the Coffin Island Farm. He opined that there are synergies between both aquaculture and tourism. On cross-examination, Mr. Coyle explained that in preparation of his report he visited Beach Meadows and Liverpool's working waterfront; that he focused on jurisdictions with regulatory regimes like Nova Scotia; and that the case studies from bivalve aquaculture can provide an important lesson for marine finish aquaculture.

S Coyle Affidavit, Exhibit [#045](#), at Exhibit A, PDF p 7

34. The robust tourism industry in RQM is further evidenced by Mr. Muldoon's successful short term rental accommodation near Beach Meadows, and directly across from the Coffin Island Farm, known as the "Mighty Atlantic Guest House". At the hearing, Mr. Muldoon

was delighted to review the online comments from his guests – all of whom gave his accommodation perfect ratings.

Online Reviews, Exhibit [#098](#)

35. The evidence demonstrates that the Coffin Island Farm positively impacts the economic development of RQM and the Province, including the tourism industry.<sup>7</sup>

**(c) Fishery activities in the public waters surrounding the proposed aquacultural operation**

36. The Coffin Island Farm has successfully operated in Liverpool Bay in tandem with other fisheries including, but not limited to, herring, mackerel, lobster and First Nation fisheries. Section 3 of the Development Plan addresses the fishery activities surrounding the Farm, and notes that KCS permits local fishers to utilize the lease area for fishing (p 101).

Section 3 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), p 86 - 134

**No Evidence the Lobster Fishery has been Negatively Impacted**

37. The 23 Fishermen assert that the proposed expansion will negatively impact the lobster industry in Liverpool Bay and rely on the evidence of local fishers and the expert opinions of Inka Milewski and Chris Milley.
38. The affidavit evidence and testimony of the fishers is that they fish lobster, herring and mackerel in Liverpool Bay, including the waters surrounding the Coffin Island Farm. They have not put forward any objective evidence that their catches have decreased in the 14 years the KCS has operated the Farm. Indeed, on cross-examination, Mr. Manthorne and Mr. Munroe acknowledged that they set their traps in areas known to be productive, which as illustrated in the maps attached to their affidavits includes areas near and surrounding the existing Farm.
39. Inka Milewski is a Research Associate at Dalhousie University. Since at least 2011, she has opposed salmon aquaculture in the marine environment. She relies, in part, on her

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<sup>7</sup> The effect, if any, on the lobster industry is addressed under 3(c) - Fishery activities in the public waters surrounding the proposed aquacultural operation.

studies in Port Mouton in support of her opinion that the Farm may impact the lobster population.

Milewski Affidavit, Exhibit [#024](#)

Article authored by Milewski, *Move fish farms out of public waters*, Exhibit [#104](#)

40. Dr. Ramon Filgueira, Associate Professor in the Marine Affairs Program at Dalhousie University, reviewed Ms. Milewski's Port Mouton studies from 2014 and 2018 and concluded that they had fundamental scientific flaws. Notably, some of which were previously highlighted by other scientists outside the scope of this Application. The first flaw was the use of the catch per unit effort (CPUE) metric when the authors did not know the total effort of the fishery, a crucial piece of information. Second, the timing of the study was limited to only two weeks of the whole fishing season, leading to uncertainty in the analysis.

Filgueira Affidavit, Exhibit [#062](#)

41. Based on his review of the literature and his field-based studies on lobsters including acoustic tracking a microbiome project, Dr. Shawn Robinson, retired DFO scientist, opines that the proposed farms in Liverpool Bay will have little negative effect on the behaviour and distribution of lobsters that could affect the local fishery.

S Robinson Affidavit, Exhibit [#043](#)

S Robinson Rebuttal Affidavit, Exhibit [#065](#), Report at Exhibit B

42. Further to his 3 year study in Liverpool Bay, Dr. Robinson concluded, in relevant part, that: (1) lobsters and crabs were observed under the Coffin Island Farm; (2) lobsters were not actively repelled by the Farm; and (3) there were no significant difference in the gut microbiomes of lobsters from the Farm to the other reference areas in Liverpool Bay and therefore no detectable effect from the Farm operation on the lobster population.
43. The ROV video footage gathered by Dr. Robinson clearly demonstrates that lobsters exist within the lease boundaries of the Farm. When asked to confirm his attendance and participation in Dr. Robinson's study, Peter Stewart, retired fisher, maintained that there were no salmon in the cages at the time. However, Dr. Robinson reported that the video footage was captured under the active Coffin Island Farm.

44. Dr. Robinson also highlighted the importance of ongoing environmental monitoring of the benthic environment to minimize the impact of aquaculture sites on the local environment. Ms. Milewski raised concern of the impact of the proposed expansion on the benthic environment. Section 3.2.2 of the Development Plan and the Nickerson Affidavit at para 19(b) address the mitigation strategies which include remote feeding systems to ensure the correct amount of feed is given to the salmon and minimize the amount, if any, in the benthic.

Section 3.2.2 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), at p 119

45. Chris Milley of Nexus Coastal opines the *potential* impact of the proposed expansion *may* have significant risks of detrimental effects on the economic condition of the Liverpool Bay lobster fishery because of (1) loss of lobster harvest revenue from the potential loss of harvest area and increased transit costs and (2) as a result of undermining public confidence in the lobster industry that can lead to the decreased intergenerational transfer of employment in the fishery. On cross-examination, Mr. Milley acknowledged that many data points relied upon in his report for the modelling and calculations were not correct. Therefore, it is submitted that little weight should be afforded to his analysis.

C Milley Affidavit, Exhibit [#023](#)

46. Peter Norsworthy opines that the trends in decreased lobster landings are unrelated to marine finfish aquaculture.

P Norsworthy Affidavit, Exhibit [#063](#)

47. In further contrast to Mr. Milley's opinion, Mr. Manthorne and Mr. Munroe spoke to the intergenerational transfer within the lobster industry in Liverpool Bay. Both acknowledged that they purchased their lobster license and boat after consideration and conclusion that the lobster industry is and will remain productive in Liverpool Bay.
48. Lastly, as conceded by Mr. Milley, the proposed expansion of only six cages would not displace many lobster fishers and therefore will likely not have a detrimental impact.

### **First Nations Fisheries Operate Alongside KCS's Operations**

49. In his affidavit, Justin Martin, Lead of Fisheries for KMK, confirmed that First Nations fish lobster in the Liverpool Bay, under the Moderate Livelihood fishery as well as the Food,

Social, and Ceremonial fishery (“**FSC Fishery**”). While he did not provide the specific area(s) within Liverpool Bay, this is in keeping with the section 3.1.3 of the Development Plan and KCS’s experience of First Nation fishers setting lobster traps within the Coffin Island Farm boundaries. Mr. Martin reported that there was a four-fold increase in lobster landings for the Moderate Livelihood fishery during October 2023 to January 2024.

J Martin Affidavit, Exhibit [#034](#)

Section 3.1.3 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), at p 117

50. Mr. Martin also stated that the First Nations harvest elvers in the Mersey River.
51. The elver fishery takes place at or near the head of tide at the mouth of a river. KCS’s operations do not take place in Mersey River, nor near the mouth of the Mersey.

Section 3 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), at p 112

52. There is no evidence before the Board that the Farm impacts the Mersey River or the elver population.

**(d) Oceanographic and Biophysical Characteristics of the Public Waters**

53. The Coffin Island Farm is located near the entrance to Liverpool Bay, south of Coffin Island. Its proximity to Coffin Island offers shelter from predominant winds.
54. Section 4 of the Development Plan addresses the oceanographic and biophysical characteristics of the public waters surrounding the Farm, including wind conditions, waves, tides, currents, temperature, oxygen and bathymetry.

Section 4 of the Development Plan, Application Package Vol 1, Exhibit [#005](#), at p 135-164

- **Oceanographic Characteristics: wind, waves, tides, currents, temperature, site design**
55. KCS is highly experienced with the oceanographic conditions at the Farm due to its 14 years of operations.

56. Section 15(g) of the [Aquaculture Management Regulations](#)<sup>8</sup> requires KCS to provide DFA with a professional engineer's approval of the design of the farm's structures in place for containment management. The engineer is required to consider oceanographic and meteorological conditions including wind, waves, currents, depth and tidal range.
57. KCS's mooring and containment systems are custom designed by Cooke's engineers for each of its farms specific conditions. Cooke's engineers apply various aquaculture industry standards and utilize modelling software to test their performance.

A Turner Affidavit, Exhibit [#038](#), at paras 8-11

58. Adam Turner, PEng of Cooke, testified that, following his design and approval of the existing layout at the Coffin Island Farm, he directed surface and subsurface inspections of the mooring lines, grid lines, compensators and cages to verify they were installed in accordance with design specifications.
59. Mr. Turner was cross-examined about the infrastructure's performance during Hurricane Lee. While a buoy came loose and drifted to shore, the mooring and containment infrastructure was not compromised by Hurricane Lee, and no fish escaped.
60. KCS must report breaches of containment infrastructure to DFA. There has only been one reportable event in the history of the Coffin Island Farm. In June 2021, a six- to seven-inch hole was found in a net, which was suspected to have been made by a seal. There was no evidence of fish escape. In response, to mitigate the chance of future escapees, KCS has implemented the use of predator nets year-round.

J Nickerson Affidavit, Exhibit [#044](#) at para 17(e)

61. If the Application were approved, Cooke's engineers will design and approve farm infrastructure in-keeping with established and tested containment practices.

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<sup>8</sup> BOA Tab E.

- **Biophysical Characteristics: oxygen, bathymetry, baseline monitoring**

62. The Coffin Island Farm has performed well environmentally in the past, which demonstrates that the conditions are suitable for Atlantic salmon. Both KCS and DFA share this assessment after over a decade of environmental monitoring results.

J. Feindel Affidavit, Exhibit [#052](#) at para 68

63. Under the *Aquaculture Management Regulations*, an operator must submit a Farm Management Plan (“**FMP**”) to DFA for approval. The FMP must address, in relevant part:

(a) DFA’s Environmental Monitoring Program Framework for Marine Aquaculture in Nova Scotia (“**EMP**”); and

J Feindel Affidavit, Exhibit [#052](#), at Exhibit C, PDF p 29

(b) DFA’s Standard Operating Procedures for Environmental Monitoring of Marine Aquaculture Sites in Nova Scotia (“**SOPs**”).

J. Feindel Rebuttal Affidavit, Exhibit [#071](#), at Exhibit A, PDF p 8

64. In the Performance Review, DFA concluded that “the site historically meets environmental regulatory requirements and has been considered ‘oxic’ since 2012”.

Performance Review, Exhibit [#007](#) at p 4

65. The Development Plan and its addenda also include data on dissolved oxygen, temperature and salinity, which support healthy conditions for Atlantic salmon; and baseline testing which occurred on January 10 and 15, 2019 while the Farm was stocked as part of the Baseline Assessment Report prepared by SIMCorp. Average sulfide conditions fell within DFA’s oxic classification.

Development Plan, Application Package Vol 1, Exhibit [#005](#) at PDF p 135 - 164 and 277

J Feindel Affidavit, Exhibit [#052](#) at paras 31, 34

66. In the Baseline Assessment Report, SIMCorp used modelling software to model the depositional contours of the proposed site. Modeled deposition fell directly below the 20 cages and extended very slightly to the northwest in the direction of the dominant current. None of the depositional contours extended outside of the lease boundary.

Baseline Assessment Report, Development Plan, Application Package Vol 1, Exhibit [#005](#) at p 319

67. DFO modelled Predicted Exposure Zones (“**PEZs**”) to assess the potential far-field theoretical impacts of the three proposed farms in Liverpool Bay, characterized as “precautionary overestimates”.

Report on Outcomes of Consultation, Exhibit [#004](#) at 255-256

68. As further explained by Dr. Robinson, former DFO scientist, the PEZs are highly precautionary. The potential impacts decrease exponentially as distance increases from the cages. The anticipated impacts are expected up to 30 m from the edge of the cages (or up to 50 m under a highly cautious approach). Dr. Ramon Filgueira, who is an expert in modelling deposition with familiarity of the conditions in Liverpool Bay, testified that, considering the depth and site characteristics, 30 m is likely an overestimate.

S Robinson Affidavit, Exhibit [#043](#)

Filgueira Affidavit, Exhibit [#062](#)

69. Based on its depositional modelling, DFO expressed that maximum production levels of 660,000 fish could result in an exceedance of DFO’s 3000 µM sulfide threshold. However, DFA’s view remains that 660,000 fish is a reasonable proposal and the Farm’s performance will ultimately determine the maximum biomass for each production cycle.

Report on Outcomes of Consultation, Exhibit [#004](#) at 255-256

J Feindel Affidavit, Exhibit [#052](#) at paras 28-29

70. Importantly, if the Application were approved, it does not rubber stamp the proposed production levels of 660,000 fish. KCS requires DFA approval for stocking density before each stocking, which includes a review of the EMP data for the Farm.

- **This Hearing is not a Forum for the Regulatory Overhaul of the EMP**

71. Dr. Cranford, testifying on behalf of RQM, critiques DFO’s and DFA’s regulated Monitoring Standard for sulphides, particularly the Ion Selective Electrode Method (“**ISE**”) method and the timing of monitoring. He advocates for the UV Method and opines that regulatory change should precede significant industry expansion, including in Liverpool Bay.

P Cranford Affidavit, Exhibit [#048](#) at Exhibit A at PDF p 6, 11 - 15

72. On cross-examination, Dr. Cranford conceded that, from a scientific perspective, the expansion of the Coffin Island Farm by six cages is not a significant industry expansion.
73. Respectfully, this evidence is not relevant on this Application as it is outside of the Board's jurisdiction. Sections 49(c) and 52(1) of the Act expressly provide that the Board's authority on an adjudicative amendment application, in relevant part, is to amend an existing aquaculture license or lease. In doing so, it must consider the Section 3 Factors. It does not include authority to amend the regulated EMP.
74. Section 64(1)(e) of the Act provides the Governor in Council the regulation-making power with respect to environmental monitoring which was exercised through the *Aquaculture Management Regulations*. Section 10 of those regulations provide that a license-holder's FMP must include any information and procedures the Minister requires, including:
- (a) Processes for measuring oxidic conditions within the boundaries of the site and at any other locations determined by the Minister; and
  - (b) The monitoring schedule and associated process for reporting results.
75. The Minister's environmental monitoring requirements are set out in the EMP and the SOPs. Section 6 of the SOPs list the DFA approved sulfide monitoring technologies and provide for the timing of measurements, along with detailed sampling requirements.
- J. Feindel Rebuttal Affidavit, Exhibit [#071](#), PDF p 8
76. While Dr. Cranford critiques the DFA-approved ISE method and the timing of sulfide monitoring, these are methods and processes which KCS is required by regulation to follow.
77. Furthermore, Dr. Cranford's opinion asks the Board to act as an academy of science, to render judgment on the DFA's environmental monitoring regime, and to decide what regulatory changes should be implemented.
78. This contradicts the scheme of the Act and its regulations, as detailed above, which place the technical components of the environmental monitoring regime in the capable hands of DFA subject matter experts.

79. The Board does not have this authority nor, with respect, the expertise to adjudicate on this topic. There is no basis - nor requirement - to assess the scientific merits of the environmental monitoring regime under the guise of considering the oceanographic and biophysical characteristics of the public waters surrounding the Farm. This was not the legislature's intention on an adjudicative amendment application.
80. This does not mean that Dr. Cranford's views should not be considered in the proper forum. While no jurisdiction in Canada has implemented Dr. Cranford's UV method, it is under consideration by DFO and DFA, with a CSAS scheduled in 2026. As stated on cross-examination, Dr. Cranford was invited to participate at the CSAS.

**(e) The Other Users of the Public Waters**

81. The public waters of Liverpool Bay are used for a variety of activities including boating, swimming and fishing. Other users of the Bay are addressed at Section 5 of the Development Plan.

Section 5 of Development Plan, Application Package Vol 1, Exhibit [#005](#), p 165 - 232

82. The Coffin Island Farm is roughly a kilometer offshore from Beach Meadows, a popular municipal beach. Beach Meadows Park is operated by RQM, which has recently invested in upgrades, including new picnic shelters and a beach hut.

RQM's Facebook Posts, Exhibit [#097](#)

83. The Coffin Island Farm has successfully operated alongside other users of Liverpool Bay and Beach Meadows since 2011.

**Farm Operating When Property Owners Purchased Nearby Properties**

84. Brian Muldoon is the Founder and President of PLBA, which is an activist organization opposed to marine-based fin fish farming. He confirmed on cross-examination that PLBA advocates for a moratorium on marine-based salmon farming.
85. PLBA put forward the evidence of three homeowners, Mr. Muldoon, Larry Cochrane and Eric Goulden, all of whom purchased residential property along the coast of Liverpool Bay, after KCS started operating the Coffin Island Farm in 2011:

- (a) Mr. Goulden purchased his home, a remarkable oceanfront architectural design on Beach Meadows, in 2013. He can see the Farm from his back deck.

E Goulden Affidavit, Exhibit [#026](#) at para 1-3

- (b) Mr. Cochrane purchased his land in 2014 and spent approximately \$2.5M constructing his home, including its deck from which he can see the Farm.

L Cochrane Affidavit, Exhibit [#025](#), at paras 1-4

- (c) Mr. Muldoon lives the closest to the Farm. He and his partner purchased their home in 2014 and invested in renovating it, including adding windows along the back facing the Bay. He can see the Farm through these windows and from his backyard. After purchasing his home property, Mr. Muldoon purchased the house next door, renovated it and turned it into a short-term rental accommodation called the Mighty Atlantic Guest House, which opened in 2017. The business has been exceptionally successful.<sup>9</sup>

B Muldoon Affidavit, Exhibit [#028](#) at paras 2 - 5

Online Reviews, Exhibit [#098](#)

86. Mr. Goulden and Mr. Cochrane are property developers and have since made other investments in Liverpool.

### **Visual Impact of the Proposed Expansion is Non-existent**

87. In *Town Point*, [NSARB 2022-001-002-003](#)<sup>10</sup> at para 38, this Board concluded that “mere visibility” of aquaculture infrastructure “does not equate to the subjective description of ‘unsightly.’”

88. Here, the Farm cages are low in profile and dark in colour.

89. Christopher Glebe, architectural designer, modelled the visual impacts of the proposed expansion from several reference points around Liverpool Bay. As set out in his report,

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<sup>9</sup> For visual orientation of Mr. Muldoon’s properties and the Coffin Island Farm, see Exhibit A of Mr. Muldoon’s Affidavit, Exhibit #028 at p 11, and the Sound Study in the Affidavit of David Richards, Exhibit #040 at PDF p 9.

<sup>10</sup> BOA Tab B.

the existing visual impact of the cages is low. The View Location Map, View 3: Horsehead and View 7: Coffin Island in the Visual Impact Study clearly illustrate the view of the farm, and its proposed expansion from different vantage points. The addition of six cages will be difficult to notice from most of the surrounding area. Mr. Glebe's opinion was not challenged on cross-examination.

C Glebe Affidavit, Exhibit [#039](#) at Exhibit A, PDF pgs 5, 10, 18-20 and 30-32

C Glebe Supplemental Affidavit, Exhibit [#061](#) at Exhibit A

### **No Objective Evidence of Impact from Smell or Odours**

90. Mr. Muldoon asserts that there is a smell from the Farm in the summer when the wind blows a certain direction. Even so, his Mighty Atlantic Guest House, which has perfect online review ratings, is fully booked in the summer.
91. There is no objective evidence before the Board – lay or expert – to support a conclusion that there is an odour which leads to any impacts. Accordingly, Mr. Muldoon's subjective assertion should be afforded no weight.

B Muldoon Affidavit, Exhibit [#028](#) at paras 2 - 5

Online Reviews, Exhibit [#098](#)

### **KCS Has Made Sound Attenuation Improvements**

92. Mr. Muldoon also raised concern with respect to the sound from the Coffin Island Farm. He is the only person from whom KCS has received a noise complaint.

J Nickerson Rebuttal Affidavit, Exhibit [#060](#) at para 15

93. As detailed in the Rebuttal Nickerson Affidavit of Jeffery Nickerson, net washing vessels were on site on three of the five specific dates referenced in Mr. Muldoon's affidavit from 2020 and 2021. In 2023, KCS made sound attenuation improvements through a refit to its net washing vessel, the *Lady Jeanelle*. Since the refit, KCS has not received any noise complaints on days where the net washing vessel was operating. KCS has also implemented additional sound attenuation improvements, such as a system which reduces runtime of supplemental oxygen delivery.

J Nickerson Rebuttal Affidavit, Exhibit [#060](#) at paras 4-25.

94. To assess sound levels, KCS commissioned the sound study of David Richards, PEng (the “**Sound Study**”). Mr. Richards is a professional engineer who has experience conducting sound assessments for occupational health and safety purposes.

D Richards Affidavit, Exhibit [#040](#), at Exhibit A

95. The Sound Study involved taking several measurements when the feed barge was not operating as well as measurements while its systems were turned on.
96. Session 5 of the Sound Study from Horse Head Rock demonstrates that there are minimal sound contributions from this location. Throughout this session, the generator on the feed barge was operational. When the feed blowers and the net washer were turned on, no audible difference was detected. The average  $L_{eq1s}$  was 48.2dB(A), which is well within comfortable limits, and peaks were attributable to a foghorn.

Richards Affidavit, Exhibit [#040](#), at Exhibit A at PDF p 24-25

97. In his report, Mr. Richards referenced the sound guidelines from Nova Scotia Environment and Climate Change (“**NSECC**”), noting that measurements from receptors were below certain thresholds. These guidelines do not directly apply, however, provide a reference.
98. Mr. Richards was cross-examined on updated guidelines from October 2023 which introduce certain lower thresholds in rural areas. Notably, the updates were issued after the measurements were taken in the Sound Study, and they provide a methodology for deviation from the referenced levels in areas with elevated background sound.

NSECC Guidelines, Exhibit [#082](#) at PDF p 13

99. In contrast to the Sound Study, PLBA relies on the sound readings from Mr. Muldoon’s iPhone application, Decibel Meter Sound Detector. Mr. Muldoon was not put forward as a sound expert and conceded on cross-examination that he did not have sound expertise.
100. Mr. Richards, PEng reviewed Mr. Muldoon’s readings and explained that the accuracy of the iPhone application varies by device and that a smartphone is not a calibrated sound measurement device. He also noted that Mr. Muldoon used a Z-weighting – which is not a standard used for sound monitoring. Accordingly, Mr. Muldoon’s iPhone sounding readings should be afforded no weight.

Richards Rebuttal Affidavit, Exhibit [#077](#)

101. Furthermore, Ms. Feindel testified that DFA has conducted its own sound measurements through its audits and site inspections of the Coffin Island Farm from a net washing vessel and from Beach Meadows. DFA's Performance Review reported that there were noise complaints, which were investigated, and warnings and/or charges were not warranted.

Performance Review, Exhibit [#007](#), Appendix B

### **KCS Collects its Debris**

102. PLBA raised issue with KCS's equipment becoming debris along the shoreline. Mr. Goulden and Mr. Muldoon provided photographs of debris on Beach Meadows, which they say come from the Coffin Island Farm.
103. Despite receiving standing in part because Beach Meadows is a municipal beach, RQM presented no evidence on any issues at Beach Meadows with respect to the Farm, including for example debris or anything else.

Decision on Intervenor Status, NSARB-2023-001-INT-007, Exhibit [#020](#) at p 18

104. Equipment may be lost during storms or rough weather. Dealing with the impact of ocean conditions is a challenge and responsibility for all commercial operations on the water. As explained by lobster fisher Peter Stewart of the 23 Fishermen on cross-examination, lobster fishers lose equipment during storm conditions as well, which is known as "ghost gear" in the industry.
105. Notably, both Mr. Goulden and Mr. Muldoon admitted that, when reported, KCS will retrieve buoys and other large debris when it is safe to do so. Similarly, DFA's Performance Review reported that KCS collects its debris.

B Muldoon Affidavit, Exhibit [#028](#) at para 15; and E Goulden Affidavit, Exhibit [#026](#) at para 18

Performance Review, Exhibit [#007](#), at p 3 and Appendix B

106. In addition to buoys, Mr. Goulden's affidavit includes a photograph of a 40 kg fish feed bag taken by a neighbour which he purports was from KCS's operation. When put to Mr. Szemerda, he testified that KCS only uses 25 kg fish feed bags – not 40 kg. Mr. Goulden also describes plastic, ropes and netting which he attributes to the Farm but which do not have any identifying marks to support that conclusion. He did not notify KCS of these debris.

E Goulden Affidavit, Exhibit [#026](#) at paras 13-19

107. While equipment loss may occur, the record does not suggest that it is a significant and persistent problem and, in any event, strongly supports that KCS takes steps to remedy this issue when it occurs.

### **No Evidence Recreational Boaters Users Will be Impacted**

108. As noted above, nearby property owners and members of the community use Liverpool Bay for beachgoing, boating, swimming and fishing.
109. The only expert opinion evidence relating to the proposed expansion's impact on recreational boating or sailing is of Eric MacIntosh, a retired DFO Officer and experienced sailor. Mr. MacIntosh's unchallenged opinion is that the expansion will not detrimentally impact recreational boating or sailing.

E MacIntosh Affidavit, Exhibit [#041](#)

110. As noted above, RQM has not filed any evidence of negative impacts related to debris, sound, visual impact or smell on Beach Meadows. Nor any evidence that the proposed expansion will negatively impact the recreational boaters in its constituency.
111. Queen's Recreational Boating Association ("**QRBA**") was granted intervenor status based on its members' recreational boating and sailing activities in Liverpool Bay. QRBA did not to participate in the hearing. As set out in its letter filed with the Board on October 6, 2025, QRBA's evidence addressed the two new sites and is of limited relevance to the proposed expansion at Coffin Island. This further supports a finding that the proposed expansion will not significantly affect the recreational boating community.

Decision on Intervenor Status, NSARB-2023-001-INT-004, Exhibit [#020](#) at p 8

### **Sufficient Buffer from the Cages to the Island to Protect Birds on Coffin Island**

112. Canadian Wildlife Services ("**CWS**") responded to DFA's network consultations and recommended a 300m buffer from Coffin Island to the lease boundary due to the use of Coffin Island by nesting colonial waterbirds, including the endangered Roseate Tern.
113. In ***Town Point***, at paras 26 and 91-92, CWS similarly recommended the standard 300 m buffer to protect potential Piping Plover habitat on nearby land. Considering the specific

circumstances of that case, the Board accepted a modified buffer of 250 m as there was only a 20 m gap between the oyster cages and the edge of the lease.

114. Here, the distance from lease boundary to the nearest point on the shoreline is 248.2 m. The distance from the lease boundary to the cage boundary is 158.4 m. Therefore, there is already an approximate buffer of over 400 m from the cage boundary to Coffin Island. The proposed expansion does not put the Farm closer to Coffin Island.

N Feindel Supplementary Affidavit, Exhibit [#072](#) at Exhibit A, PDF p 34

115. It is submitted that there is an adequate buffer from Coffin Island which, along with other mitigations such as the sound attenuation, sufficiently protects the nesting colonial waterbirds on the island.

### **No History of Great White Shark (“GWS”) Interactions**

116. As set out in DFO’s CSAS report, there have been no reports of GWS entanglement with aquaculture sites in Atlantic Canada. GWS are an endangered species and therefore KCS is required to report any interactions with GWS at the Farm. Similarly, Cooke has had no negative interactions with GWS in 38 years of operations in Atlantic Canada and the eastern United States.

Report on Outcomes of Consultation, Exhibit [#004](#) at p 255 and 305

A Swanson Rebuttal Affidavit, Exhibit [#066](#) at Exhibit A

117. RQM put forward the report of Dr. Neil Hammerschlag who opines that the proposed expansion of the three farms in Liverpool Bay would pose risks to GWS. Dr. Hammerschlag is a marine ecologist with a research and advocacy focus on shark conservation. As admitted on cross-examination, he has no background or expertise in assessing the scale or location of aquaculture sites, or in assessing aquaculture impacts or mitigations.

N Hammerschlag Affidavit, Exhibit [#049](#)

118. In contrast, Dr. Andrew Swanson, Cooke’s Vice President of Research and Development, conducted a review of the literature on shark-aquaculture interactions, information from Cooke’s global operations and DFO data on shark tracking in Liverpool Bay and, based on his review, opines that the proposed expansion does not pose a risk to GWS.

119. Dr. Swanson was cross-examined extensively on his research background. He was candid that he is not a shark specialist. However, as illustrated by his CV, he is a peer reviewed author of multiple scientific papers and patents and has conducted peer reviews of scientific papers. His opinion is based, in part, on Cooke's global operational history in areas that have GWS populations and no reported negative GWS interactions.

A Swanson Rebuttal Affidavit, Exhibit [#066](#), at Exhibit B

120. He explained that GWS risks are mitigated by KCS's standard operating procedures including reducing and removing mortalities, minimizing over-feeding, employing good harvesting practices and utilizing secondary predator netting. He further noted that the shallow depth at Coffin Island may also dissuade GWS.

A Swanson Rebuttal Affidavit, Exhibit [#066](#), at Exhibit A at paras 34-40

121. When the Application was filed in 2019, KCS only used predator nets seasonally. KCS now uses them year-round. In cross-examination, Dr. Hammerschlag acknowledged that this reduces the likelihood of entanglement, capture and breach for GWS.
122. During the network consultation, DFO considered the risks to GWS and other SARA-listed species employing a precautionary risk-based approach and did not recommend additional mitigation strategies in its CSAS report.
123. Based on the above, the evidence does not support a finding that the proposed expansion will pose a risk to GWS.

**(f) The Public Right of Navigation**

124. The proposed amendment and expansion will not impact the public right of navigation. During the network consultation, Transport Canada reviewed the Application and did not raise any concerns.

Report on Outcomes of Consultation, Exhibit [#004](#) at p 12

125. Former DFO officer and avid sailor, Mr. MacIntosh opines that the Application and proposed expansion will not detrimentally impact navigation in Liverpool Bay. There is no competing expert report, and he was not cross-examined on his opinion.

E MacIntosh Affidavit, Exhibit [#041](#)

126. Mr. Stewart of 23 Fishermen, who was not qualified as an expert, stated that certain fishing routes would be “lost” along the west side of Coffin Island due to the expansion. Yet, the Farm has been operating in its existing configuration since 2011. Further, the direct evidence of lobster fishers Mr. Manthorne and Mr. Munroe is that they fish along Coffin Island, including its west side, as illustrated in the maps attached to their affidavits.

Stewart Affidavit, Exhibit [#024](#) at PDF p 21, at para 20; and P Stewart Rebuttal Affidavit, Exhibit [#058](#)

**(g) The Sustainability of Wild Salmon**

127. The potential risks of marine salmon aquaculture to wild Atlantic salmon include the spread of disease and sea lice from the farmed to the wild population, as well as escapees and introgression.
128. In ***Rattling Beach***, as in this hearing, the evidence before the Board with respect to wild salmon included the expert report of Jonathan Carr of the Atlantic Salmon Federation (“**ASF**”), an organization committed to advocating against marine-based salmon farming.

See: ASF Journal Cover, Exhibit [#099](#) and ASH Testimony [#100](#)

129. In that matter, ASF appeared before the Board as an expert for the interventor, Dr. Gregory Hemming. He was granted standing because he was “rewilding” his property. He did not file affidavit evidence, testify, nor lead any evidence as to how the aquaculture site would impact his re-wilding project or property. His standing was not based on the impact of the site on the sustainability of wild salmon and therefore he was in essence a conduit for ASF to appear before the Board, as it would not otherwise have standing.
130. Similarly, PLBA has provided ASF the opportunity to appear before the Board. PBLA was granted standing as a “grassroots community group” of residents and business owners who are “concerned about the impact of marine based salmon farming on the region’s economic prosperity, social well-being, and coastal environment”. In support of standing, it argued that its members’ properties, livelihoods, and lifestyles may be severely affected by KCS’s proposed projects. As with Dr. Hemming, PBLA’s standing was not based on the sustainability of wild salmon.
131. There, the Board concluded that Mr. Carr did not produce evidence that the farm would have any impact on any local salmon population. Rather, he showed the *possibility* of a risk to wild salmon by the presence of farmed salmon. The Board held as follows:

*[113] In this case, despite Mr. Carr's ongoing reliance on what he describes as "absence of evidence", we note the off-stated concept that it is impossible to prove a negative. Aside from that, the Board has heard an abundance of evidence that even before regulatory and statutory change (and since), this site has been well managed, and indeed, has strong mitigation efforts in place. All farms are closely regulated and monitored by professional staff at DFA. As well, we remind, again, that what is proposed here is only a boundary change to incorporate what has been in place over the years.*

*[114] In this case, Mr. Carr has produced no evidence that the dimensions of the Rattling Beach farm as it now sits, without any change in its infrastructure or production, will have any impact on any local salmon population. He has shown however, the possibility of a risk to salmon by the presence of any salmon farm. We find that appropriate mitigation is in place to deal with potential damage.*

132. The same is true here. The evidence before the Board strongly supports the conclusion that neither the Coffin Island Farm nor the proposed expansion will pose a risk to wild salmon or to the sustainability of wild salmon.

#### **There is No Wild Salmon Run Near the Farm**

133. As explained by Dr. Kurt Samways, the reality is that "there are little to no wild salmon left in the area."

K Samways Rebuttal Affidavit, Exhibit [#067](#), Exhibit A at para 5 / PDF p 5

134. The Mersey River, the closest historic salmon river to Liverpool Bay, has been considered extirpated since at least 2008. This means there is no wild salmon population in this river.

135. Wild Atlantic salmon populations have been in decline for over 20 years. There is no definitive scientific explanation for these declines, but there are a number of potentially contributing threats to freshwater or marine habitats have been investigated by researchers. There is no direct evidence salmon farming has caused the decline.

K Samways Affidavit, Exhibit [#042](#), at Exhibit A at para 8 / PDF p 7

K Samways Rebuttal Affidavit, Exhibit [#067](#), at Exhibit A at para 7 / PDF p 5

136. The extirpation of the Mersey River is a result of several factors including the introduction of dams and flow barriers, acidification and invasive species.

137. The Medway River (approximately 20 km from Liverpool Bay) is the nearest Southern Upland salmon spawning river. The Medway River suffers from an abundance of invasive bass and acidification. There is an annual run of wild salmon of fewer than 100 grilse in the Medway. Other salmon spawning rivers such as the Lahave River are considerably farther away.

B Glebe Affidavit, Exhibit [#076](#) at Exhibit A at p 3 / PDF p 7

138. PLBA's wild salmon expert, Mr. Carr, is of the view that the weaker salmon populations are more vulnerable to other threats, such as introgression, competition or disease. The same concerns are noted in the DFO CSAS report. However, in its review, DFO highlighted DFA's regulatory efforts toward improved containment and did not recommend additional mitigation strategies.

N Feindel Affidavit, Exhibit [#055](#) at paras 74-80

139. Here, KCS submits that its responsible and effective containment management and mitigation efforts, including fish health and sea lice monitoring, further reduce the residual risk, if any, to the remaining wild salmon in or around Liverpool Bay.

### **KCS's Containment Management Mitigates the Risk of Escapees**

140. Under section 15 of the *Aquaculture Management Regulations*, KCS must include containment management measures in its FMP. In the Performance Review, DFA concludes with respect to KCS's containment management at Coffin Island:

*The operator has fully complied with the criteria set out by the department regarding the Containment Management Framework, which supports the comprehensive and effective management of marine finfish farms to mitigate the risk of escapees.*

Performance Review, Exhibit [#007](#) at p 4

141. As discussed above, KCS employs a custom-designed mooring and containment system which is approved by a professional engineer. Once this infrastructure is in place, it is routinely monitored. Daily above-water inspections take place. Moorings and anchors are inspected every six months and after significant storm events.
142. DFA's Containment Management Framework also includes a genetic marking requirement which allows any escapee to be identified as a Cooke aquaculture salmon.

In 2023, Cooke / KCS implemented its DNA traceability program. All the salmon stocked at Coffin Island Farm are traceable, should a breach occur.

J Feindel Affidavit, Exhibit [#052](#), at Exhibit E at PDF p 63

J Nickerson Affidavit, Exhibit [#044](#) at paras 97 - 103

143. As previously discussed, there is only one suspected containment breach at the Coffin Island Farm; the divers found a small hole in one net in June 2021, suspected to have been made by a seal. KCS notified DFA and provided information with respect to the suspected breach, as required. DFA deemed it satisfactory with no additional actions required.

Performance Review, Exhibit [#007](#) at p 4

### **No History of Sea Lice Treatment at Farm**

144. Sea lice are a natural occurring parasite in the marine environment. They are ubiquitous and are found on wild salmon. Nova Scotia has a history of low sea lice infestations.
145. Sea lice do not live in fresh water. The smolts stocked into the Farm from the freshwater hatchery are sea lice free. KCS must obtain a Certificate of Health for Transfer from DFA prior to stocking the Farm, which assures satisfactory testing results.

A Swim Affidavit, Exhibit [#053](#) at paras 31-33.

146. KCS is required to monitor sea lice levels weekly from April 1 to January 15. The electronic records must be available to the Chief Veterinarian within seven days of collection. DFA imposes low action thresholds ranging seasonally from 0.5 to 1 adult female louse per fish.

A Swim Affidavit, Exhibit [#053](#) at para 31-38.

147. To date, KCS has not had to employ any sea lice intervention at the Coffin Island Farm.
148. Should intervention be required, KCS can rely on several interventions including mechanical freshwater treatments, which remove the lice from the fish and dispose of them in a land-based composting facility; in-feed treatments, all of which require Health Canada approval for use; and harvesting.

J Nickerson Affidavit, Exhibit [#044](#) at para 91

149. Dr. Samways opines that the risk of sea lice to wild salmon is low. The reports of sea lice affecting the ability of post-smolt to successfully return as adults appear to have occurred in regions with more intensive farming, situated in narrow passageways, such as Scotland or Norway, i.e. not the conditions in Liverpool Bay. Further, based on the wild salmon migratory patterns, there is little evidence that salmon leaving or returning to the Medway River would venture south along the coast before migrating to the North Atlantic which therefore reduces the likelihood of potential interactions with the Farm.

K Samways Affidavit, Exhibit [#042](#), at Exhibit A  
K Samways Rebuttal Affidavit, Exhibit [#067](#), at Exhibit A

### **Fish Health Monitoring**

150. Under the *Aquaculture Management Regulations*, a minimum of six provincial surveillance veterinarian visits take place per calendar year at the Farm. These visits are complemented by visits from KCS's veterinarians.
151. Any knowledge or suspicion that a fish may have a reportable disease, or mortality events past certain thresholds must be reported to the provincial Chief Veterinarian.
152. The Performance Review of the Coffin Island Farm included a review of the historical operation of the farm from a health regulatory perspective, which was satisfactory.

A Swim Affidavit, Exhibit [#053](#) at para 43

153. Kelly Cove institutes an "all-in all-out production strategy" at the Farm. The proposed three-month fallow period is in line with industry standards and DFA's recommended fallow for a production cycle of the proposed length. Fallowing reduces the risk of pathogens, sea lice and disease as there is no host (i.e. farmed salmon) in the cages.

A Swim Affidavit, Exhibit [#053](#) at para 22

154. In 2012, infectious salmon anaemia virus was detected in two of the 14 cages. This was reported to DFA, DFO, and the Canadian Food Inspection Agency, as required. KCS voluntarily culled the fish in the two cages to prevent the spread of the virus. There have been no further reportable diseases.

### **KCS's Improved Husbandry Practices**

155. In response to the reports of Mr. Carr and Dr. Halfyard, Dr. Brian Glebe, a fish physiologist and salmonid aquaculture research scientist, who had a 45-year career in Atlantic salmon conservation and farming, observed that “[w]hat is conspicuous by its absence in the affidavits is reference to Kelly Cove’s improvements in salmon husbandry over the last decade.” Notably, Dr. Glebe’s opinion was not challenged on cross-examination.

B Glebe Affidavit, Exhibit [#076](#) at Exhibit A at p 6 / PDF p 10

156. In his view, the greatest risk to wild salmon is from the escape of mature grilse capable of breeding. To mitigate this risk, KCS uses grow lights at the Coffin Island Farm, which can reduce early maturation of farmed salmon by up to 90%. The production of large smolts in land-based systems also reduces the time in the ocean, reducing risk of escape.

J Nickerson Affidavit, Exhibit [#044](#) at para 34

157. In his report, Mr. Carr proposes the use of sterile fish (i.e. triploids) as a mitigation measure. On cross-examination, Mr. Szemerda confirmed that KCS has experimented with the use of sterile fish at a different farm.

158. However, Dr. Glebe highlighted the challenge of sterile fish in marine aquaculture. He produced the first stock of triploids in North America in the early 1980s. He explained that sterile fish are slower growing, less resistant to disease and more vulnerable to low oxygen events. Norway has stopped farming sterile fish due to these concerns.

B Glebe Affidavit, Exhibit [#076](#) at Exhibit A at p 6 / PDF p 10

### **Recovery Efforts Will Not Be Impacted**

159. The Coffin Island Farm has not impeded wild salmon population recovery efforts. Indeed, KCS has supported efforts to recover the wild Atlantic salmon run in the Medway River.

J Nickerson Affidavit, Exhibit [#044](#) at paras 104-107

160. On behalf of PLBA, Dr. Ed Halfyard opines that resolving chronic freshwater acidification caused by acid rain is the most pressing restoration need in the Medway. He testified that restoration efforts through liming will require work and investment over several decades.

161. Dr. Samways is lead scientist on the Fundy Salmon Recovery Project and sits on the steering committee of the Medway River salmon restoration project. His view is that recovery actions involving collecting out migrating smolts, rearing them at a marine conservation farm, and releasing them back to the river, will be required.

K Samways Affidavit, Exhibit #042, at Exhibit A at paras 22-28 / PDF p 10 - 11

162. Neither of these recovery efforts would be affected by the proposed expansion.

**(h) Other Aquaculture Sites in the Public Waters**

163. There are no other aquaculture sites in the public waters of Liverpool Bay and therefore this factor is not applicable.

164. On KCS's request, the Board has placed its application with respect to the two new proposed sites Brooklyn (AQ#1432) and Mersey Point (AQ#1433), which initially formed part of this Application, in abeyance.

165. At the hearing, Mr. Szemerda explained that KCS is still considering whether it will advance its applications with respect Brooklyn AQ#1432 and Mersey Point AQ#1433.

166. Should KCS seek to proceed with either or both of those sites, there will be a further hearing at which the Board will consider the impact, if any, of the proposed site(s) with consideration of the Coffin Island Farm under this factor.

**CONCLUSION & RELIEF SOUGHT**

167. Based on the foregoing, it is respectfully submitted that the Board should decide in favor of KCS's Application such that the Minister of DFA may amend the marine finfish aquaculture lease and license for Coffin Island Farm AQ#1205x pursuant to section 52 of the Act.

All of which is respectfully submitted.



Robert G. Grant

## Schedule A - Index of Exhibits

Number	Description
1.	Ministerial Referral Letter dated August 9, 2023
2.	Formal Submission Letter from DFA to the Board dated August 10, 2023
4.	DFA's Report on the Outcomes of Consultation
5.	Application Package Volume 1 which includes: <ul style="list-style-type: none"> <li>• Executive Summary prepared by DFA</li> <li>• Aquaculture Amendment Application Form prepared by KCS with respect to license and lease AQ#1205</li> <li>• Liverpool Bay Finfish Marine Aquaculture Development Plans prepared by Sweeney International Marine Corp (the "<b>Development Plan</b>") up to page 578</li> </ul>
6.	Application Package Volume 2 which includes: <ul style="list-style-type: none"> <li>• The Development Plan from page 579 to 1058</li> </ul>
7.	DFA's Report on the Outcomes of the Performance Review for AQ#1205
20.	Intervenor Applications – DECISION
21.	All Written Submissions – UPDATED February 22, 2024
22.	Queens Recreational Boating Association – Evidence Package
	Intervenor Applications: All Applicants
<b>23 Fishermen</b>	
23.	Affidavit of Chris Milley, sworn January 19, 2025
24.	Evidence Book and Affidavits which includes: <ul style="list-style-type: none"> <li>• Affidavit of Victor Westhaver, sworn January 17, 2024</li> <li>• Affidavit of Matthew Manthorne, sworn January 17, 2024</li> <li>• Affidavit of Justin Munroe, sworn January 17, 2024</li> <li>• Affidavit of Peter Stewart, sworn January 15, 2024</li> <li>• Affidavit of Bobby Lohnes, Jr., sworn January 17, 2024</li> <li>• Affidavit of Kevin Colp, sworn January 17, 2024</li> <li>• Affidavit of Ronnie Conrad, sworn January 17, 2024</li> <li>• Affidavit of Inka Milewski sworn January 15, 2024</li> </ul>
<b>PLBA</b>	
25.	Affidavit of Larry Cochrane, sworn January 17, 2024
26.	Affidavit of Eric Goulden, sworn January 18, 2024
27.	Affidavit of Josh Morash, sworn January 18, 2024
28.	Affidavit of Brian Muldoon, sworn January 18, 2024

<b>Number</b>	<b>Description</b>
29.	Affidavit of Thomas Raddall, sworn January 18, 2024
30.	Affidavit of Dr. Edmund Halfyard, sworn January 19, 2024
31.	Affidavit of Jonathan W. Carr, sworn January 19, 2024
<b>KMK</b>	
33.	Affidavit of Heather MacLeod, sworn January 19, 2024
34.	Affidavit of Justin P. Martin, sworn January 19, 2024
35.	Affidavit of Charmaine C. Stevens, sworn January 18, 2024
<b>KCS</b>	
38.	Affidavit of Adam Turner, sworn on January 16, 2024
39.	Affidavit of Christopher Glebe, sworn January 19, 2024
40.	Affidavit of David Richards, sworn January 19, 2024
41.	Affidavit of Eric MacIntosh, sworn January 18, 2024
42.	Affidavit of Kurt Samways, sworn on January 19, 2024
43.	Affidavit of Shawn Robinson, sworn on January 19, 2024
44.	Affidavit of Jeffrey Nickerson, sworn on January 22, 2024
45.	Affidavit of Stephen Coyle, sworn on January 22, 2024
<b>RQM</b>	
47.	Book of Exhibits
48.	Affidavit of Peter Cranford, sworn on January 17, 2024
49.	Affidavit of Neil Hammerschalg, sworn on January 19, 2024
50.	Affidavit of Susan McGibbon, sworn on January 22, 2024
<b>DFA</b>	
52.	Affidavit of Jessica Feindel, sworn on January 19, 2024
53.	Affidavit of Dr. Amanda Swim, sworn on January 19, 2024
54.	Affidavit of Robert Ceschiutti, sworn on January 18, 2024
55.	Affidavit of Nathaniel Feindel, sworn on January 22, 2024
56.	Affidavit of Dr. Chris McKindsey, sworn on January 22, 2024
<b>Oral Statements</b>	
57.	All Requests to Present Oral Submissions - UPDATED October 7, 2025
<b>23 Fishermen Rebuttal Evidence</b>	
58.	Affidavit of Peter Stewart, sworn February 16, 2024
59.	Affidavit of Inka Milewski, sworn on February 12, 2024

Number	Description
<b>KCS Rebuttal Evidence</b>	
60.	Rebuttal Affidavit of Jeffery Nickerson, sworn on February 16, 2024
61.	Supplemental Affidavit of Christopher Glebe, sworn on February 19, 2024
62.	Affidavit of Ramon Filgueira, sworn February 19, 2024
63.	Affidavit of Peter Norsworthy, sworn on February 19, 2024
64.	Rebuttal Affidavit of Adam Turner, sworn on February 16, 2024
65.	Rebuttal Affidavit of Shawn Robinson, sworn on February 16, 2024
66.	Rebuttal Affidavit of Andrew Swanson, sworn on February 16, 2024
67.	Rebuttal Affidavit of Kurt Samways, sworn on February 16, 2024
<b>PLBA Rebuttal Evidence</b>	
68.	Supplemental Affidavit of Dr. Edmund Halfyard, sworn on February 16, 2024
69.	Supplemental Affidavit of Jonathan W. Carr, sworn on February 16, 2024
<b>RQM Rebuttal Evidence</b>	
70.	Affidavit of Richard Lane, sworn on February 20, 2024
<b>DFA Rebuttal Evidence</b>	
71.	Rebuttal Affidavit of Jessica Feindel, sworn on February 16, 2024
72.	Supplementary Affidavit of Nathaniel Feindel, sworn on February 20, 2024
73.	Affidavit of Bruce Hancock, sworn on February 20, 2024
<b>QRBA – Not in Evidence on this Application</b>	
74.	Affidavit of William Alexander Sandy Nicholson, sworn on February 20, 2024
75.	Affidavit of Loris Azzano, sworn on February 20, 2024
<b>KCS Rebuttal Evidence Continued</b>	
76.	Affidavit of Brian Glebe, sworn on February 19, 2024
77.	Rebuttal Affidavit of David Richards, sworn on February 16, 2024
78.	Affidavit of Michael Szemerda, sworn on September 5, 2025
<b>EXHIBITS ENTERED AT HEARING</b>	
80.	Article: <i>Salmon Farms Under Fire on U.S. East Coast After Being Shuttered on West Coast</i>
81.	NSECC Guidelines for Environmental Noise Measurement and Assessment 1990
82.	NSECC Guidelines for Environmental Noise Measurement and Assessment 2023
83.	Article: <i>Competing Use of Marine Space in a Modernizing Fishery: Salmon Farming Meets Lobster Fishing on the Bay of Fundy</i>
84.	Amendment to paras 30 – 32 of J Nickerson Affidavit Exhibit #044

Number	Description
85.	Media Release: All Other Reportable Events
86.	DFO Maritimes Region Lobster Economic Update
87.	DFO CSAS 2022/010 - Stock Status Update for American Lobster ( <i>Homarus Americanus</i> ) in Lobster Fishing Area 33 for 2021
88.	News Article: <i>50,000 Maine Salmon Lost to Hungry Seals, says Cooke Aquaculture</i>
89.	DFO CSAS 2012/142 - Recovery Potential Assessment for Southern Upland Atlantic Salmon: Population Dynamics and Viability
90.	Google Map – Distance from Coffin Island to mouth of Medway Harbour
91.	Letter from Ecojustice re Request for unpublished materials reviewed by Dr. Samways, dated September 24, 2025
92.	Letter from Stewart McKelvey to Ecojustice re Request for unpublished materials reviewed by Dr. Samways, dated October 3, 2025
93.	Article: <i>Increasing Temperatures Accentuate Negative Fitness Consequences of a Marine Parasite</i>
94.	Global Seafood Alliance – Salmon Farm Standard
95.	<i>Aquaculture Management Regulations</i>
96.	Qccr Radioaccount Facebook Post, dated August 8
97.	RQM Facebook posts, dated July 4 and May 29, 2025
98.	Online Reviews – Mighty Atlantic Guest House
99.	ASF Atlantic Salmon Journal
100.	Testimony of the Atlantic Salmon Federation on LD 1951, An Act Regarding Marine Finfish Aquaculture, dated May 25, 2023
101.	Article: <i>Long-term Survival of Atlantic Salmon Following Catch and Release: Considerations for Anglers, Scientists and Resource Managers</i>
102.	Article: <i>Movement Patterns and Predator-prey Interactions of Domestic Atlantic Salmon (<i>Salmo salar</i>) Following an Experimental Release in a Highly Dynamic Marine Environment</i>
103.	Article: <i>The Decline and Impending Collapse of the Atlantic Salmon (<i>Salmo salar</i>) Population in the North Atlantic Ocean: A Review of Possible Causes</i>
104.	Media Article: <i>Move Fish Farms out of Public Waters</i>
105.	Article: <i>Lack of Interaction Between Finfish Aquaculture and Lobster Catch in Coastal Nova Scotia</i>
106.	Article: <i>Long-term Studies of Lobster Abundance at a Salmon Aquaculture site, Eastern Canada</i>
107.	Article: What's 'Cooke'ing' in the Bay?
108.	Profiles in Canadian Aquaculture

Number	Description
109.	Canadian Integrated Multi-Trophic Aquaculture Network
110.	Article: <i>Defining the Risk of Sea Lice Infections: Analysing the early life history population dynamics of sea lice on Atlantic Salmon Aquaculture Sites in the Bay of Fundy</i>
111.	Article: <i>The Canadian Integrated Multi-Trophic Aquaculture Network (CIMTAN) – A Network for a New Era of Ecosystem Responsible Aquaculture</i>
112.	Article: <i>Impact of Finfish Farms in Eastern Canada (Nova Scotia) on American Lobster and Rock Crab Distribution</i>
113.	Article: <i>Global Trends of Benthic Bacterial Diversity and Community Composition Along Organic Enrichment Gradients of Salmon Farms</i>
114.	Article: <i>A Response to the letter to the editor ‘Lack of interaction between finfish aquaculture and lobster catches in coastal Nova Scotia’</i>
115.	Article: <i>Sea-cage Aquaculture Impacts Market and Berried Lobster (Homarus americanus) Catches</i>
116.	Release: NSERC-Cooke Industrial Research Chair in Sustainable Aquaculture
117.	Article: <i>Measuring and Modelling the Dispersal of Salmon Farm Organic Waste Over Sandy Sediments</i>
118.	DFO CSAS 2022/049 - Evaluation of Factors Affecting the Ion-selective Electrode (ISE) Electrochemical Measurement of Total Free Sulfide in Marine Sediments
119.	Article: <i>Tackling the Elephant in the Room – Large-scale Salmon Farming and the Potential for Far-field Ecosystem Effects</i>