

**RECEIVED**

By Nova Scotia Aquaculture Review Board at 4:06 pm, Nov 28, 2025

NSARB-2023-001-AFF-003

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

---

**PROTECT LIVERPOOL BAY ASSOCIATION**

**CLOSING SUBMISSIONS**

November 28, 2025

---

**James Gunvaldsen Klaassen, Kacie Oliver  
and Ella Johnson (Articled Clerk)**

Ecojustice  
520-1801 Hollis Street  
Halifax, NS B3J 3N4

**Counsel on behalf of the Intervenor,  
Protect Liverpool Bay Association**

AND TO:

Robert Grant, KC, Sara Nicholson & David Barry  
Stewart McKelvey  
Counsel for the Applicant,  
Kelly Cove Salmon Ltd.

Alison Campbell & Caitlin Menczel-O'Neill  
Nova Scotia Department of Justice  
Counsel for the Department of Fisheries and Aquaculture

Jamie Simpson  
Juniper Law  
Counsel for the Intervenor,  
23 Fishermen of Liverpool Bay

Jessica Ginsburg, Twila Gaudet & Kristina Buurman  
Counsel for the Intervenor,  
Kwilmu'kw Maw-klusuaqn Negotiation Office

Peter Rogers, KC & Natasha Puka  
McInnes Cooper  
Counsel for the Intervenor,  
Region of Queens Municipality

Loris Azzano (not participating)  
Counsel for the Intervenor,  
Queens Recreational Boating Association

## Contents

I.	Overview.....	1
II.	Facts .....	2
	A. Protect Liverpool Bay Association .....	2
	B. General background on how marine finfish farms are regulated.....	3
III.	Issues.....	4
IV.	Submissions .....	4
	A. General legal principles applicable to the Board’s decision.....	4
	B. Application of the s 3 factors should result in the rejection of KCS’s application.....	7
	(1) Section 3(b): the expansion will not contribute to economic development.....	7
	(2) Section 3(e): the expansion will have negative impacts on other users of the public waters surrounding the site.....	7
	(3) Section 3(g): the expansion will adversely impact wild salmon and the adverse impacts will not be adequately mitigated .....	19
	(4) Section 3(a): approving this application is not the optimum use of marine resources	28
	C. In the alternative, if the Board approves any expansion of the Coffin Island site, several conditions should be imposed to mitigate negative impacts.....	29
V.	Relief Sought .....	30

## I. Overview

1. The waters and beaches of Liverpool Bay are a marvel, and a huge source of pride to the community and to Nova Scotians. Residents enjoy Liverpool Bay's beaches, swimming, boating and wonderful views. Liverpool Bay supports a thriving tourism industry, a Mi'kmaw fishery, commercial and recreational fishing, navigation and other recreational activities.
2. Protect Liverpool Bay Association (PLBA) was formed to protect Liverpool Bay's beaches, waters and recreational activities, upon learning of Kelly Cove Salmon (KCS)/Cooke Aquaculture (Cooke)'s expansion plans at its Coffin Island open net pen salmon aquaculture site (1205). PLBA members are deeply concerned about the noise, odour, waste, debris and other environmental impacts from KCS's proposed expansion<sup>1</sup> and that it might be forced upon them against their will, and without social licence from the community.
3. PLBA is also concerned about the project's impacts on the sustainability and recovery of wild Atlantic salmon.<sup>2</sup> Salmon aquaculture facilities have contributed to the decline of wild salmon populations and observed population declines are much greater in areas where aquaculture is present.<sup>3</sup> The existing 1205 operation has likely reduced the chances of survival and recovery of the perilously endangered Southern Upland Atlantic salmon population. The Mersey River population is already extirpated, and we are at a critical moment for those in the Medway, Petite and LaHave Rivers, and other nearby rivers. If the Board allows the boundary amendment and expansion of 1205, with or without the planned expansions at Mersey Point (1433) and Brooklyn (1432), it will further threaten the recovery of an already extremely vulnerable wild salmon population and increase the chances of their extirpation.<sup>4</sup>
4. Neither the proposed 1205 expansion, nor open net pen salmon aquaculture generally, will solely determine whether Nova Scotia's remaining wild salmon will survive. However, open net pen salmon aquaculture is a threat to wild salmon wherever it occurs, including the Inner and Outer Bay of Fundy and Southern Uplands of Nova Scotia.<sup>5</sup> At present, salmon populations can

---

<sup>1</sup> Muldoon Ex 28 [at 8](#) (paras 41-44). This refers to the Affidavit of Brian Muldoon, NS ARB Exhibit 28, at PDF page 8, paragraphs 41 to 44. In the citations in this brief, where the PDF page number does not match the page number of the document in question, the document page number will follow in parentheses, e.g. (p 8).

<sup>2</sup> Cochrane Ex 25 [at 4](#) (para 19).

<sup>3</sup> Carr Ex 31 [at 13](#) (p 10).

<sup>4</sup> Carr Ex 31 [at 12](#) (p 9).

<sup>5</sup> Carr Ex 31 [at 14](#) (p 11).

still recover with effective interventions in the Medway, LaHave and other local rivers, but additive marine mortality due to approving KCS's current or expanded operations will put that recovery out of reach.<sup>6</sup>

5. Since 2011, KCS has operated its 1205 facility well beyond its lease boundaries.<sup>7</sup> While leasing an area of about 4 ha, KCS has operated over an area of public waters that is about 6 times larger. KCS now seeks to expand its lease boundaries about ten-fold, from roughly 4 ha to 40 ha,<sup>8</sup> to encompass (1) the full area of the existing 14 cage operation; and (2) additional area to operate six more sea cages. KCS also seeks to increase its capacity at the site to 660,000 fish.<sup>9</sup> If fully stocked at the proposed new capacity, this would add 262,874 more fish to the 397,126 currently at the facility<sup>10</sup> – about a 66% increase over current stocking levels.

6. This proposal should not be approved, in part or in its entirety. KCS has not established any economic or social benefit flowing to the community, the region or to Nova Scotia from this proposed expansion. Any such benefit is completely speculative. In contrast, there will be several serious adverse environmental, social and economic impacts of this proposal, as well as Indigenous rights impacts, as outlined below and other intervenors' evidence. Weighing all the evidence in its totality, with due regard to applicable statutory purposes under Part V of the *Fisheries and Coastal Resources Act* (the Act),<sup>11</sup> this proposal is not an optimum use of marine resources.

## II. Facts

### A. Protect Liverpool Bay Association

7. In October 2018, Brian Muldoon and other concerned individuals founded PLBA after learning that KCS sought to expand 1205 (along with the creation of 2 new sites). They were concerned the expansion would exacerbate 1205's negative impacts.<sup>12</sup> Mr. Muldoon is PLBA's

---

<sup>6</sup> Halfyard Ex 68 [at 4-5](#) (p 1-2).

<sup>7</sup> Nickerson Ex 44 [at 4](#) (paras 12-13).

<sup>8</sup> Szemerda cross-exam by RQM, October 7, 2025.

<sup>9</sup> Nickerson Ex 44 [at 81](#) (Proposed Production Plan for Coffin Island).

<sup>10</sup> Szemerda cross-exam by PLBA, October 8, 2025.

<sup>11</sup> *Fisheries and Coastal Resources Act*, SNS 1996, c 25, [s 43A](#) [the Act].

<sup>12</sup> PLBA incorporated under the *Societies Act* in June 2019 and its mission is “[t]o promote prosperity, social wellbeing, and environmental sustainability of our coastal communities by preventing the expansion of open net fin fish farms” (Muldoon Ex 28 [at 8](#) (paras 41-42)).

president.<sup>13</sup> When Mr. Muldoon affirmed his affidavit, PLBA had 850 website subscribers and 980 Facebook followers. Its community events often attracted over 100 participants.<sup>14</sup>

8. PLBA applied to intervene in this matter on September 19, 2023, stating its intention to submit evidence related to all the s 3 factors in the *Aquaculture Licence and Lease Regulations*<sup>15</sup> if its intervention was approved.<sup>16</sup> PLBA described eight of its members' concerns, shared across its membership, about the proposed expansions at 1205, Mersey Point and Brooklyn.<sup>17</sup> These included debris, noise, odour, lack of economic benefit and other negative environmental impacts, including on wild salmon.<sup>18</sup> When the Board approved PLBA's application for intervenor status, PLBA was granted the right to present evidence relevant to the s 3 factors without limitation as to subject-matter.<sup>19</sup>

9. The evidence of PLBA members Mr. Muldoon, Eric Goulden and Larry Cochrane is before the Board. Their affidavits explain their strong ties to Liverpool Bay<sup>20</sup> and their respective concerns and experiences with the impacts from 1205.

### **B. General background on how marine finfish farms are regulated**

10. Once leased and licenced, aquaculture operations are regulated by the *Aquaculture Management Regulations* (AMRs),<sup>21</sup> made under the Act. Before initial stocking, the licence holder must prepare, and obtain approval of, a Farm Management Plan (FMP).<sup>22</sup> The licence holder must also “adhere to the procedures contained in their [FMP]” and keep records verifying adherence.<sup>23</sup> An finfish site FMP must include information and procedures relating to four areas: (a) fish health management; (b) environmental monitoring; (c) farm operations; and (d) containment management.<sup>24</sup> In addition, the Minister has published Minimum Compliance

---

<sup>13</sup> Muldoon Ex 28 at [1](#) (para 1).

<sup>14</sup> Muldoon Ex 28 at [8](#) (para 43).

<sup>15</sup> *Aquaculture Licence and Lease Regulations*, NS Reg 347/2015 as amended by NS Reg 186/2019, s [3](#) [ALLRs].

<sup>16</sup> PLBA Intervenor Application, All Intervenor Applications at [34](#) (p 2, 2d para from top).

<sup>17</sup> PLBA Intervenor Application, All Intervenor Applications at [35](#) (p 3).

<sup>18</sup> PLBA Intervenor Application, All Intervenor Applications at [35-40](#) (pp 3-8).

<sup>19</sup> The Board stated “if a single body can present those interests that are relevant to the factors contained in s. 3 of the regulations, those concerns can be dealt with by a single entity, in this case the PLBA” (All Intervenor Application Decisions Ex 20 at [27](#)).

<sup>20</sup> Muldoon Ex 28 at [1-2](#) (paras 1-9); Goulden Ex 26 at [2-3](#) (paras 7-12); Cochrane Ex 25 at [1-4](#) (paras 1-17).

<sup>21</sup> *Aquaculture Management Regulations*, NS Reg 348/2015 as amended by NS Reg 118/2019 [AMRs].

<sup>22</sup> AMRs, s [5](#).

<sup>23</sup> AMRs, s [8](#). This section also requires the licence holder to keep records showing “that effective action was taken at critical control points.”

<sup>24</sup> AMRs, ss [6\(1\)](#), [9-15](#).

Requirements (MCRs) for procedures related to each section.<sup>25</sup> The MCRs are created under s 6 of the AMRs and therefore are also legally required.

11. Among other things, the AMRs require the farm operations section of the FMP to include information and procedures relating to retrieving site debris or gear, keeping the site “in good order” and noise.<sup>26</sup> The MCRs also require this section to describe strategies relating to same.<sup>27</sup>

12. Although the Board is asked to approve amendments to KCS’s lease and licence for 1205, neither has been put before the Board. Likewise, while the current FMP forms part of KCS’s licence for 1205, very few FMP excerpts, largely relating to containment management,<sup>28</sup> are produced. These omissions put the Board in the impossible position of being asked to amend a lease and licence it has not seen and blindly determine whether a FMP will sufficiently address any adverse impacts of 1205 and/or the proposed expansion.

### **III. Issues**

13. KCS has not met its burden to persuade the Board that it should approve KCS’s application, either (1) in part to encompass its existing operations; or (2) in its entirety. In the alternative, if the Board decides to approve some or all of KCS’s application, it should do so only if significant mitigating conditions are attached to KCS’s licence and lease.

14. PLBA also adopts KMKNO’s submissions showing that the province failed to fulfill their constitutional duty to consult the Nova Scotia Mi’kmaq and that AQ#1205x cannot be approved unless and until this occurs. PLBA will not be making additional submissions on this issue.

### **IV. Submissions**

#### **A. General legal principles applicable to the Board’s decision**

15. Based on the Board’s recent decision in *C&G Aquaculture*<sup>29</sup> and applicable legislation, PLBA submits the following analytical framework applies to the Board’s decision.

16. The Board must consider all of the s 3 factors in the ALLRs<sup>30</sup> in a “context-specific” manner, recognizing that the circumstances of each application may warrant assigning “different

---

<sup>25</sup> J Feindel Ex 52 [at 19-29](#) (pp 17-27).

<sup>26</sup> AMRs, ss [14\(c\)](#), [\(e\)-\(f\)](#).

<sup>27</sup> J Feindel Ex 52 [at 26](#) (ss 8.3-8.5).

<sup>28</sup> Outcomes of Consultation Ex 4 at [78-90](#), [91-98](#), [99-106](#), [111-184](#).

<sup>29</sup> *C&G Aquaculture* (23 December 2024), NSARB 2024-001.

<sup>30</sup> ALLRs, [s 3](#).

weights to each factor.”<sup>31</sup>

17. For each factor (except s 3(a), which is applied at the end), the Board examines the relevant evidence, the likelihood and severity of the proposal’s potential impacts on the interests and issues the factor reflects, and whether any adverse impacts will be sufficiently mitigated. The Board then makes a preliminary determination as to whether the factor weighs in favour of or against approving the application, or is neutral.<sup>32</sup>

18. Despite being first in the list of s 3 factors, s 3(a) “the optimum use of marine resources” is considered at the end of the analysis, when the Board balances its assessments under each of the specific applicable s 3 factors to determine, considering all the impacts, circumstances and competing interests, the best use of the area of the proposed lease site.<sup>33</sup>

19. During this balancing exercise, additional legal principles and statutory purposes must be kept in mind. For example, no competing interest or factor is prioritized over the others as a general rule.<sup>34</sup> However, depending on the evidence, certain interests or factors may receive more weight in a given case.<sup>35</sup>

20. Further, when the Board conducts this overall assessment, it must have due regard to the applicable purposes of Part V of the Act, set out in s 43A, and ensure its ultimate decision fulfills them. Put otherwise, ss 3(b)-(h) set out relevant concerns and competing interests that will engage certain purposes in s 43A as guides for the exercise of the Board’s decision-making authority. For example, in *C&G Aquaculture*, the Board determined that the only “unaddressed competing interest” was the “occasional commercial fishing.”<sup>36</sup> The Board therefore used s 43A(d)<sup>37</sup> as a yardstick to measure the optimum use of the area; that is, to determine the best compromise between competing interests in the area, the Board had to consider what would be “the most equitable use of the marine resource.”<sup>38</sup>

21. Additionally, as *C&G Aquaculture* implies, another indicator of what constitutes “the

---

<sup>31</sup> *C&G Aquaculture*, [para 39](#).

<sup>32</sup> *C&G Aquaculture*, [paras 40-59](#).

<sup>33</sup> *C&G Aquaculture*, [paras 60-65](#).

<sup>34</sup> ALLRs, [s 3](#).

<sup>35</sup> *C&G Aquaculture*, [para 39](#).

<sup>36</sup> *C&G Aquaculture*, [para 64](#).

<sup>37</sup> Section [43A\(d\)](#) states: “[t]he purpose of this Part is to: ... (d) ensure equity, fairness and compatibility in access to, and utilization of, public water resources for aquaculture.”

<sup>38</sup> *C&G Aquaculture*, [paras 39, 63, 65](#).

optimum use of marine resources” is the Doelle-Lahey goal of having low environmental and social impacts that decrease over time and high social and economic value that increases overtime, thereby “meet[ing] the requirement that aquaculture offers economic prosperity, social-well being and environmental sustainability.”<sup>39</sup>

22. Finally, generally applicable broader legal principles, including the precautionary principle, should be considered. The precautionary principle provides that action can and should be taken to address threats of significant environmental harm even in the face of scientific uncertainty.<sup>40</sup> In this case, the principle means the Board should err on the side of environmental caution and protection in weighing s 3 factors that entail significant environmental risks.

23. As an aside, we note that, contrary to KCS’s submission,<sup>41</sup> the relative efficiency and carbon footprint of producing marine-based food compared to that of a land-based food, e.g., beef production, is irrelevant to s 3(a) and to the Board’s task. Section 3(a) expressly refers to the optimum use of **marine** resources—needless to say, beef production is not a use of marine resources and beef production is clearly not an option in Liverpool Bay.

24. PLBA focuses its submissions on the following factors: s 3(e) “other users of the public waters,” s 3(g) “the sustainability of wild salmon” and s 3(b) “contribution ... to ... economic development”—in this case, the lack thereof. Although the interests represented by other intervenors will engage other purposes such as s 3(d), the overall balancing exercise under s 3(a) in these submissions engages the following purposes in s 43A of the Act:

(b) ensure aquaculture is conducted under conditions and in accordance with controls that protect the environment;

...

(g) ensure that coastal communities derive positive social and economic benefits from aquaculture;

(h) ensure that aquaculture is conducted with due regard to the health, well-being and recovery of species at risk; ...

25. As for the s 3 factors not analyzed below (ss 3(c), (d), (f), and (h)), we generally support

---

<sup>39</sup> *C&G Aquaculture*, paras [66, 3](#).

<sup>40</sup> As an emerging principle of customary international law, the precautionary principle applies when interpreting statutes whether or not the statute mentions the principle: *114957 Canada Ltée (Spraytech, Société d'arrosage) v Hudson (Town)*, [2001 SCC 40](#), paras [30-32](#); see also *Bancroft v Nova Scotia (Lands and Forests)*, [2020 NSSC 175](#), paras [54-56, 72, 80](#).

<sup>41</sup> KCS Closing Submissions, November 14, 2025, [paras 19-20](#).

the other intervenors' positions on these factors. However, regardless of the Board's conclusions on those factors, the significant negative impacts outlined below warrant a finding that granting KCS's application, in whole or in part, is not the best use of the area, having due regard to the purposes mentioned above and the Doelle-Lahey goal of being low impact and high value.

**B. Application of the s 3 factors should result in the rejection of KCS's application**

26. PLBA's submissions focus on the factors set out in subsections 3(b), 3(e), 3(g) and 3(a), and are discussed in that order under the headings below.

***(1) Section 3(b): the expansion will not contribute to economic development***

27. No additional jobs or spending will arise out of the proposed expansion of the Coffin Island facility. Mr. Szemerda agreed that the expansion will not create the 28-30 jobs predicted in the application materials,<sup>42</sup> and there is no evidence as to any new jobs associated with the expansion of 1205 itself. Likewise, there is no evidence before the Board as to any increase in spending by Cooke or KCS locally or provincially, tied to 1205, if the expansion proceeds. There is also no information as to how denial of the application would impact economic development or spending. In its closing submissions, KCS speaks only to existing jobs and overall company spending.<sup>43</sup> Likewise, the evidence filed does not connect the proposed Digby hatchery to approval or denial of the 1205 application.<sup>44</sup> Further, Mr. Szemerda advised that KCS's proposed Digby Hatchery was delayed and would not say when it might be built.<sup>45</sup> And, contrary to KCS's assertion, there is absolutely no evidence that 1205 has in any way benefited Mr. Muldoon's short-term rental.<sup>46</sup> KCS has therefore not established that the expansion would contribute to community and provincial economic development. Any such benefit is entirely speculative, and this factor does not support approving the application.

***(2) Section 3(e): the expansion will have negative impacts on other users of the public waters surrounding the site***

28. The residents of the Liverpool Bay community are all users of the public waters surrounding the proposed 1205 expansion. Many are very concerned about 1205's adverse

---

<sup>42</sup> Szemerda cross-exam by RQM, October 8, 2025.

<sup>43</sup> KCS Closing Submissions, November 14, 2025, paras [16\(b\)](#), [25-35](#).

<sup>44</sup> Nickerson Ex 44 [at 9](#) (para 34).

<sup>45</sup> Szemerda cross exam by PLBA (October 8, 2025).

<sup>46</sup> KCS Closing Submission, November 14, 2025, paras [34-35](#).

impacts and how these will increase if the expansion is approved. Many formed and joined PLBA to voice their concerns about, and opposition to, the operation and expansion of 1205.<sup>47</sup>

29. PLBA is part of a larger community of people and organizations opposed to this application. This community includes the other intervenors RQM, the 23 Fishermen, and KMKNO and the many individuals who submitted public written and oral submissions to the Board in this matter. The vast majority of these public submissions also express strong opposition to and serious concern about this project,<sup>48</sup> as do most of the public comments, questions and letters contained in the Application Package.<sup>49</sup> Many users of the waters surrounding 1205 are worried that this proposal will be forced on the community against their will. As aptly stated by the South Queens Chamber of Commerce: “KCS does not have the ‘Social License’ to occupy Liverpool Bay.”<sup>50</sup>

30. Without limiting the potential impacts relevant under s 3(e), the discussion below concentrates on the debris, noise, odour, and wildlife impacts of the 1205 facility.

*i. Debris impacts*

31. Uncontradicted evidence from Mr. Muldoon and Mr. Goulden, supported by testimony from KCS engineer Adam Turner, shows that 1205 already has negative impacts on nearby public waters and their users by polluting coastlines with debris and gear from the site.

32. Materials from 1205 often break loose into public waters and wash up on Mr. Muldoon’s property, Beach Meadows Beach, and elsewhere in Liverpool Bay.<sup>51</sup> The “most frequent and destructive items” are KCS’s large yellow buoys filled with tiny Styrofoam beads.<sup>52</sup> If a community member happens to see and report an escaped buoy to KCS before it washes ashore *and* if weather conditions permit, KCS will retrieve the buoy.<sup>53</sup> However, when the buoys are not retrieved prior to washing ashore, they often break and spew Styrofoam beads along the coastline. These innumerable tiny pieces are “difficult to clean up” and have “generally been left

---

<sup>47</sup> Muldoon Ex 28 [at 8](#) (paras 41-44).

<sup>48</sup> Public Written Submissions, [Ex 21](#).

<sup>49</sup> Application Package Vol 2 Ex 6 at [296-325](#) (pp 874 to 903), at [394-435](#) (pp 972-1013).

<sup>50</sup> Submission from South Queens Chamber of Commerce, Ex 21 at [211](#).

<sup>51</sup> Muldoon Ex 28 [at 3](#) (para 14). For examples, see Muldoon Ex 28 [at 4-5](#) (paras 16-25) and corresponding photos.

<sup>52</sup> Muldoon Ex 28 [at 3](#) (para 14). See also Mr. Goulden’s affidavit where he explains he has also seen several yellow buoys “filled with tiny Styrofoam beads” that “appear to be from KCS’s Coffin Island site washed up on and around Beach Meadows Beach” (Ex 26 [at 3](#) (para 15)).

<sup>53</sup> Muldoon Ex 28 at [3-4](#) (para 15).

to accumulate,” polluting the shoreline.<sup>54</sup>

33. Mr. Muldoon described one such incident at para 17 of his affidavit and provides photos of a broken yellow buoy and these tiny Styrofoam pieces.<sup>55</sup> Although KCS staff removed larger pieces (*after* community members and taxpayer-paid conservation officers spent time moving them to the road), Mr. Muldoon’s unchallenged evidence is that KCS was “unable or unwilling to clean up the enormous quantities of tiny Styrofoam pieces spread along [the] coastline.” These pieces remained after two snowstorms, prompting Mr. Muldoon to alert conservation officers who tried—unsuccessfully—to clean up KCS’s remaining litter.<sup>56</sup> Mr. Muldoon also provided photos of another example of a buoy breaking apart and spreading innumerable tiny Styrofoam beads along the shore.<sup>57</sup> As of the date of his affidavit, Mr. Muldoon and his partner were still finding tiny Styrofoam pieces on their property.<sup>58</sup>

34. Mr. Goulden also provided photos of this Styrofoam bead pollution about a week after Hurricane Lee, as well as an additional incident involving a washed up, intact buoy.<sup>59</sup>

35. KCS’s engineer, Adam Turner, corroborated Mr. Muldoon’s and Mr. Goulden’s evidence. During cross examination by PLBA, Mr. Turner conceded that:

- the buoys used at the Coffin Island site are typically yellow and filled with closed cell expanded polystyrene with Styrofoam beads inside and if the buoy breaks, the beads can potentially spill out and crumble, similar to what is seen in the photo at p [32](#) of Mr. Goulden’s affidavit (depicting part of a large yellow object filled with innumerable tiny white beads which appeared after Hurricane Lee);
- the yellow objects (in the water) in the photos at pp [39-40](#) and the buoys (washed up near a cemetery) in the photos at pp [52-54](#) of Mr. Muldoon’s affidavit are buoys from the Coffin Island facility, and he “would suspect” the yellow objects (washed ashore) in the photos at [42-44](#) of Mr. Muldoon’s affidavit are as well; and
- the buoy depicted at p [30](#) of Mr. Goulden’s affidavit (intact buoy washed ashore) appeared to be another buoy from KCS.

36. Mr. Goulden also finds other types of debris on or near Beach Meadows Beach that he believes came from the Coffin Island site, such as “fragments of broken plastic material and

---

<sup>54</sup> Muldoon Ex 28 [at 3-4](#) (paras 14-15); see also Goulden Ex 26 [at 3-4](#) (paras 15, 18).

<sup>55</sup> Muldoon Ex 28 [at 4](#) (para 17), [18-24](#).

<sup>56</sup> Muldoon Ex 28 [at 4](#) (paras 17-18).

<sup>57</sup> Muldoon Ex 28 [at 4](#) (para 20), at [35-37](#) (photos).

<sup>58</sup> Muldoon Ex 28 [at 5](#) (para 26).

<sup>59</sup> Goulden Ex 26 [at 3](#) (para 15), at [30, 32](#) for the photos, respectively.

pipings.”<sup>60</sup> He provided photos of debris he found on that beach following Hurricane Lee, which is illustrative of debris he often sees.<sup>61</sup> Although KCS notes this debris does not have any marks identifying it as coming from the site,<sup>62</sup> when asked whether the materials depicted in photos at pp 22-28 of Mr. Goulden’s affidavit (pieces of tubing) look like materials used in 1205 facility construction, Mr. Turner said, “they do, yes” and actually identified some of the materials as “components from the floating collars.”<sup>63</sup>

37. These affidavits detail the history of extensive debris pollution from 1205. KCS has led no evidence that it proactively searches for lost equipment or infrastructure – rather, it has depended on community members to notify them if something has broken loose. Even then, KCS has not always retrieved all of its pollution, as it has left tiny Styrofoam fragments behind when retrieving lost gear. Further, KCS does not dispute that these buoys came from 1205. By retrieving or trying to retrieve the buoys Mr. Muldoon reported, KCS implicitly admitted responsibility for them.<sup>64</sup> KCS did not cross-examine either Mr. Muldoon or Mr. Goulden on this portion of their evidence and seems to concede losing gear is inevitable.<sup>65</sup>

38. Despite the above, DFA concluded that it “is satisfied with the historical performance” of 1205.<sup>66</sup> For the reasons below, this conclusion is untenable and has no probative value when the Board considers debris impacts of 1205 and its expansion. It cannot be relied on to find that the debris impacts detailed above are acceptable or will be sufficiently addressed by KCS’s FMP.

39. First, DFA’s Manager of Aquaculture Operations (Jessica Feindel) agreed during cross-examination<sup>67</sup> that DFA did not itself, as part of its performance review, conduct any assessments relating to impacts of debris (or gear) coming from the site on other users of the surrounding public waters and environment.

---

<sup>60</sup> Goulden Ex 26 [at 3](#) (paras 14-15).

<sup>61</sup> Goulden Ex 26 [at 3](#) (para 14), at [23-28](#) (photos).

<sup>62</sup> KCS Closing submissions, November 14, 2025, para [106](#).

<sup>63</sup> Turner cross-exam by PLBA, October 7, 2025.

<sup>64</sup> Muldoon Ex 28 [at 3-5](#) (paras 15, 23-24).

<sup>65</sup> KCS Closing Submissions, November 14, 2025, para [104](#). Although KCS states “[e]quipment may be lost during storms or rough weather,” Mr. Muldoon’s uncontradicted evidence is that this also happens when its calm (Muldoon Ex 28 at [4-5](#) (paras 14, 22); see also the photos at [39-40](#) of an escaped buoy, which Mr. Turner testified came from 1205). Further, while KCS tries to diminish the significance of the debris evidence because lobster fishers also lose equipment, there is no evidence that the lobster industry causes pollution akin to that caused by KCS’s buoys.

<sup>66</sup> Performance Review Report, Ex 7 at [5](#).

<sup>67</sup> J Feindel cross-exam by PLBA, October 9, 2025.

40. Second, at most—beyond determining that KCS has not received tickets or charges stemming from debris complaints<sup>68</sup>—DFA’s consideration of debris and loose gear during its performance review was limited to confirming that relevant procedures merely existed in KCS’s FMP for 1205. DFA’s independent conclusions in its Performance Review Report relate solely to environmental monitoring, containment management, aquatic animal health, and the existence of an FMP.<sup>69</sup> Further, despite detailing the parts of KCS’s application that she and her team evaluated and referencing the “Past Performance of AQ #1205” twice,<sup>70</sup> Ms. Feindel does not mention debris, loose gear, or keeping the site in good order in her affidavit. She also does not mention these issues in her reply affidavit,<sup>71</sup> submitted after she had the opportunity to review Mr. Muldoon’s and Mr. Goulden’s affidavits.

41. In cross-examination, when pressed on DFA’s lack of reference to debris, Ms. Feindel eventually testified in part that “program implementation results feed into the performance review.” However, apart from Ms. Feindel’s vague testimony that “DFA does inspections of site [sic] following storms to determine if there’s been structural impacts or gear seen on shore, and [DFA] did do that for 1205,” there is no evidence before the Board regarding “program implementation” and no information as to the content or circumstances of such assessments or what DFA concluded and why. The Board cannot rely on unsupported statements regarding such past evaluations, especially in the face of Mr. Muldoon’s and Mr. Goulden’s uncontradicted evidence about debris. Further, both Ms. Feindel’s testimony<sup>72</sup> and the Performance Review Report (Ex 7) show that DFA’s sole concern with respect to 1205’s operations was to ensure that 1205’s FMP describes the required procedures.

42. The destructive Styrofoam buoy incidents described above “became a significant issue starting in early 2019 when KCS added several more buoys to the site.”<sup>73</sup> The only reasonable

---

<sup>68</sup> We note that the incidents that were the subject of the debris complaints in 2018 are in addition to all the other incidents detailed in Mr. Muldoon’s and Mr. Goulden’s affidavits (Performance Review Report Ex 7 at [12](#)). The third complaint occurred sometime between August 31, 2021 and April 26, 2023 (Performance Review Report Ex 7 at [12-14](#)). Mr. Muldoon does not describe conservation officer involvement in either incident falling within that date range.

<sup>69</sup> Performance Review Report, Ex 7 at [4-5](#).

<sup>70</sup> In her affidavit, Ms. Feindel only referenced the “Past Performance of AQ #1205” in relation to environmental monitoring (Ex 52 at [6-7](#) (paras 37-42)) and containment management (Ex 52 [at 10](#) (para 66)).

<sup>71</sup> J Feindel [Ex 71](#).

<sup>72</sup> J Feindel cross-exam by PLBA, October 9, 2025.

<sup>73</sup> Muldoon Ex 28 [at 3](#) (para 14).

inference is that adding even more to the site will worsen 1205's chronic pollution of Liverpool Bay with loose gear and debris and the attendant, unacceptable impacts on other users of the public waters. PLBA asks the Board to find the above evidence weighs in favour of rejecting KCS's application in its entirety, causing KCS to shrink the 1205 operation to comply with their current licence and lease, thus necessitating reduced buoys and infrastructure, and less debris and loose gear. At the very least, KCS should not be permitted to add infrastructure, thereby increasing the chances of pollution when infrastructure fails or is damaged.

*ii. Noise impacts*

43. Mr. Muldoon endures periods of significant, disruptive noise impacts caused by 1205. He and his partner have been forced to live with very loud and sustained noise from 1205 since 2018, when KCS began using the automated feeding system via the feeder barge.<sup>74</sup> KCS sometimes also operates other noisy equipment for long time periods, adding to its noise levels.<sup>75</sup>

44. This noise becomes disruptive when wind blows from 1205 toward Mr. Muldoon's home.<sup>76</sup> In his affidavit, Mr. Muldoon describes several significant incidents of noise disrupting his ability to enjoy his property and indicates there were other incidents not detailed in his affidavit. Likewise, he made several complaints regarding noise events to KCS and various Nova Scotia government departments, but not all such complaints are detailed in his affidavit.<sup>77</sup>

45. The problems with noise continued in June 2023 where Mr. Muldoon experienced almost 24 hours of constant noise from 1205. Mr. Muldoon submitted a complaint to the Minister of Fisheries and Aquaculture but DFA did nothing to mitigate the noise.<sup>78</sup>

46. KCS has dismissed Mr. Muldoon's concerns and has never attempted to discuss the problem and potential solutions with him. On July 21, 2021, when Mr. Muldoon advised KCS of 1205 noise problems on his property, KCS's spokesperson denied any problem, suggesting it was a truck going by on the road that caused the noise.<sup>79</sup> Yet, despite this denial, KCS appears to have tacitly admitted that 1205 created noise problems, as KCS says it made "sound attenuation

---

<sup>74</sup> Muldoon Ex 28 [at 5](#) (para 27) – Mr. Szemerda confirmed that KCS first started using the feeder barge in 2018 (Szemerda cross-exam by PLBA, October 8, 2025).

<sup>75</sup> Muldoon Ex 28 [at 6](#) (para 27).

<sup>76</sup> Muldoon Ex 28, [at 6](#) (para 27).

<sup>77</sup> Muldoon Ex 28 [at 5-7](#) (paras 27-38).

<sup>78</sup> Muldoon Ex 28 [at 7](#) (para 38).

<sup>79</sup> Muldoon Ex 28 [at 73](#), [at 7](#) (para 33).

improvements” in 2023 to its net washing and oxygenation equipment.<sup>80</sup> There is no assessment of these changes’ effectiveness, or any indication that any significant changes have been made to eliminate noise impacts from the feeder barge, although Mr. Muldoon’s evidence is clear that the barge is a major source of adverse noise impacts on his property.<sup>81</sup>

47. KCS also relies on the opinion evidence of David Richards, a mechanical engineer with Fundy Engineering. Mr. Richards is not an acoustical engineer, has no certifications in evaluating human perception of sound and does not list such expertise in his CV.<sup>82</sup> He nonetheless opines on this subject in two reports. His reports are tendered primarily in an attempt to discredit Mr. Muldoon’s evidence of the noise problems emanating from 1205.<sup>83</sup>

48. Mr. Richards applied a 1990 Nova Scotia Guideline to evaluate 1205 noise levels.<sup>84</sup> He conceded he was unaware of the current Nova Scotia Environment guideline, effective in October 2023, even though it was in place for several months by the time he finalized his reports in January/February 2024.<sup>85</sup> PLBA submits the 2023 Guideline has overtaken the 1990 Guideline and represents the accepted modern standard for measuring and assessing permissible noise levels. Mr. Richards made no changes to his report or to the standard referenced, despite the new 2023 Guideline coming into effect before his report and rebuttal report were finalized.

49. The 1990 Guideline requires measurement of “a minimum of two continuous representative hours of data in one period.”<sup>86</sup> The 2023 Guideline requires at least one hour,<sup>87</sup> and that “measurements be carried out over a period of time long enough to capture a varied sample of conditions, including ideal conditions with low to no wind, no steady precipitation and no excessive wave noises when near large water bodies.”<sup>88</sup>

50. Mr. Richards’ assistant conducted only one shore-based sound measurement while equipment was actually operating at 1205. Contrary to both guidelines, the measurements were taken during only one 24-minute session, on one morning (July 25, 2023), with one set of

---

<sup>80</sup> Nickerson Ex 60, [at 2](#) (para 8).

<sup>81</sup> Muldoon Ex 28 [at 5-6](#) (para 27).

<sup>82</sup> Richards cross-exam by PLBA, October 7, 2025; Richards Ex 40 at [77-78](#).

<sup>83</sup> Richards [Ex 40](#) and [Ex 77](#).

<sup>84</sup> 1990 Noise Guideline [Ex 81](#); Richards cross-exam by PLBA, October 7, 2025.

<sup>85</sup> 2023 Noise Guideline [Ex 82](#).

<sup>86</sup> 1990 Noise Guideline Ex 81 at [4](#).

<sup>87</sup> 2023 Noise Guideline Ex 82 at [16](#) (p 14).

<sup>88</sup> 2023 Noise Guideline at [9](#) “(i) Testing conditions” (p 7); see also 2023 Guideline at [7](#) (p 5).

weather conditions, at a location 260 m farther from the equipment on the site than Mr. Muldoon's property,<sup>89</sup> and with the equipment on-site running for only about 12 minutes. Mr. Richards' assistant did not measure operational sounds from 1205 from any other shore locations or under any other conditions, while equipment was running.<sup>90</sup> Mr. Richards nonetheless relies on these extremely limited results and KCS suggests they are determinative of whether 1205 produces unacceptable noise levels.

51. Additionally, Mr. Richards relied on measurements taken with a Class 2 meter,<sup>91</sup> but the 2023 Guideline requires a Class 1 meter.<sup>92</sup> He also applied an "industrial" area noise level standard,<sup>93</sup> although the area where Mr. Muldoon lives is "rural."<sup>94</sup> While the 2023 Guideline lists Liverpool as an urban area, Beach Meadows is well outside the Guideline's boundaries for the Town of Liverpool.<sup>95</sup> Mr. Richards conceded that the permissible noise levels for rural areas are lower than those he had applied.<sup>96</sup> Consequently, the noise levels measured by Mr. Muldoon exceed permissible levels at his residence.

52. Although Mr. Richards' team did not measure sound levels using an acceptable methodology and used the wrong equipment, his rebuttal report is very critical of Mr. Muldoon's use of his iPhone application to measure sound levels. Unlike Mr. Richards, Mr. Muldoon has never suggested he is a sound expert – rather he is a private individual using what resources he has to respond, in the moment, to loud and intrusive noise problems created by a large company operating an industrial facility just offshore from his property. Even if his phone application causes it to have a margin of error (which is not conceded), the measurements taken by Mr. Muldoon on June 29 (83 dBA) and August 12, 2021 (86 dBA), and on June 18, 2022 (86 dBA) are all **over 30 dBA above** the maximum daytime permissible sound levels established by the

---

<sup>89</sup> Richards Ex 77 at [6](#) (p 3); Muldoon Ex 28 at [1, 11](#) (para 1).

<sup>90</sup> Richards Ex 40 at [24](#) (p 16); Richards cross-exam by PLBA, October 7, 2025.

<sup>91</sup> Richards cross-exam by PLBA, October 7, 2025.

<sup>92</sup> 2023 Noise Guideline Ex 82 at [16](#) (p 14).

<sup>93</sup> See the 2023 Noise Guideline Ex 82 at [12](#) (p 10) – this guideline provides that permissible noise levels for an "industrial" area must be below 65 dBA from 7 am to 7 pm. That same permissible level is applied, without regard to any geographic classification, in the 1990 Noise Guideline Ex 81 at [4](#) (p 3).

<sup>94</sup> 2023 Noise Guideline Ex 82 at [7](#) (p 5). The "urban residential" category does not apply here as it pertains only to specifically listed urban residential areas.

<sup>95</sup> 2023 Noise Guideline Ex 82 at [15](#) "Table 2A" (p 13). The boundary of the Liverpool urban residential area can be viewed by clicking on the blue link described as "Liverpool map" on the right hand side.

<sup>96</sup> Richards cross-exam by PLBA October 7, 2025.

NS Environment for a rural area (53 dBA).<sup>97</sup> They are also **20 dBA above** the acceptable 1990 Guideline levels, even though those levels now apply only to industrial areas.<sup>98</sup> The 1205 facility therefore seriously exceeds both referenced noise guidelines.

53. KCS asks the Board to disregard all of Mr. Muldoon's uncontradicted first-hand observations of the noise that he has endured since 2018. This argument is based primarily on Mr. Richards' evidence and opinion. Mr. Richards' expertise is questionable, and his methodology and results were revealed to be deficient and below the standard expected of someone giving expert evidence to the Board. Mr. Richards' evidence and reports should be given no weight in determining noise impacts of 1205.

54. KCS further asks the Board to disregard Mr. Muldoon's evidence on the basis of the hearsay evidence in Exhibit 98. Exhibit 98 consists of Google ratings and other website printouts purporting to show a total of 11 online statements. KCS asserts these statements were made by persons who spent time at Mr. Muldoon's guesthouse over the past several years and tenders them for the truth of the statements and ratings within those documents.<sup>99</sup> PLBA objects to this evidence as double hearsay – the proposed evidence seeks admission of out of court statements from unknown persons, as they may appear on the websites of Google, Vrbo and Airbnb.

55. This evidence fails the test for admission of hearsay evidence. It is unnecessary as it was open to KCS to provide evidence of witnesses who live along Beach Meadows regarding the impacts of the Coffin Island facility. There is no explanation in the evidence as to why KCS could not provide such affidavits. The evidence is also unreliable as it consists of ratings and short statements (some anonymous and some by named persons) as reported on internet websites operated and controlled by unidentified persons. No explanation is provided as to why those pages were selected, and there is no proof whether the reviewers actually stayed at the property, or whether other reviews existed that commented on noise or smell issues. The VRBO pages include none of the actual reviews, and only 6 of 75 reviews are shown for the Airbnb pages.<sup>100</sup> Where the reviews are actually provided, as no direct evidence was permitted, there was no way to call any commenter as a witness to ask whether any actually stayed at the guesthouse, when

---

<sup>97</sup> 2023 Noise Guideline Ex 82 at [12](#) (p 10); Muldoon Ex 28 at [6-7](#) (paras 30, 34, 37).

<sup>98</sup> 1990 Noise Guideline Ex 81 at [4](#) (p 3).

<sup>99</sup> Online Reviews Ex 98. The oldest comment is stated to be "6 years ago:" at [1](#). For KCS's argument on this point, see KCS Closing Submissions, November 14, 2025, paras [90-91](#).

<sup>100</sup> Online Reviews Ex 98 [at 8-9](#).

they stayed, what they may have observed during their visit, or what the weather conditions they experienced. This evidence must be deemed inadmissible or given no weight.

56. Mr. Muldoon's evidence is clear that the 1205 site sometimes creates significant and disruptive noise and that, to date, KCS and DFA have had little regard for the operation's impacts on the people living nearby. However, these noise problems could be easily resolved if KCS moved the feed barge (and other noisy equipment) to the south end of the array, at a healthier distance from Beach Meadows and Mr. Muldoon's residence. As well, KCS should connect the feeding system and other equipment to electrical shore power to eliminate a great deal of diesel generator noise. No convincing justification has been provided as to why these changes have not been implemented even though they would likely help mitigate the facility's noise impacts on a rural residential area.

57. There is no evidence that DFA has ever taken any steps to require mitigation of Mr. Muldoon's concerns. Instead, DFA has permitted this industrial facility to continue operating noisily beyond its boundaries, within a rural residential area, with no consequences for the disruptive impacts on local residents.

58. Further, for the reasons outlined above at paras 39-41, DFA's conclusion that it "is satisfied with the historical performance" of the site<sup>101</sup> also has no probative value when the Board considers noise impacts of the 1205 expansion and cannot be used to find that the noise impacts detailed above are acceptable or will be sufficiently addressed by KCS's FMP. The only information the Board has about noise impacts from DFA is that, at some unidentified point in time, DFA took sound measurements "using sound equipment on board of a net washing vessel and on Beach Meadows beach." As explained above, no inferences can be drawn from such vague and unsupported evidence.

### *iii. Odour impacts*

59. At times, Mr. Muldoon must also put up with the nauseating smell of fish feed from the 1205, when the wind blows toward his property.<sup>102</sup> The smell further interferes with his ability to use and enjoy his property, as he and his partner must stay indoors with the windows closed.<sup>103</sup>

---

<sup>101</sup> Performance Review Report Ex 7 at [5](#).

<sup>102</sup> Muldoon Ex 28 [at 2](#) (para 10).

<sup>103</sup> Muldoon Ex 28 [at 7-8](#) (paras 39-40).

This is unsurprising, as Mr. Muldoon’s property is within the Predicted Exposure Zones surrounding the 1205 site, identified in the DFO CSAS report for fish feces and waste feed.<sup>104</sup>

60. KCS argues Mr. Muldoon’s evidence should be disregarded as there is no “objective” evidence regarding odour. No authority is provided for this untenable position. The Board must evaluate Mr. Muldoon’s credible evidence of what he has experienced. If “objective” evidence was required, it would also require the Board to disregard most witness evidence, including much of KCS’s own subjective evidence in the Nickerson and Turner affidavits.

61. KCS had the opportunity to file rebuttal evidence but has tendered no affidavit to contradict Mr. Muldoon’s observations. KCS relies on a hearsay printout of Google ratings and other reviews<sup>105</sup> instead of putting forward first-hand evidence regarding the onshore impacts of its operations. For the reasons set out above, PLBA objects to that evidence.

*iv. Visual impact*

62. KCS tendered reports from Christopher Glebe on the 1205 expansion’s visual impacts.<sup>106</sup> Mr. Glebe photographed 1205 from certain angles and then superimposed images on to those photos.<sup>107</sup> Mr. Glebe’s report does not meet the standard for expert evidence and should be given no weight. He is not clear about what his opinion might be, saying only that his study “seems to indicate” that there is a minimal visual impact.<sup>108</sup> He further acknowledges that “no expert knowledge is required to review the content or draw conclusions from the study.”<sup>109</sup> As such, in his own words Mr. Glebe views his report as unnecessary for the trier of fact to perform its task – it therefore fails to satisfy the basic threshold test for admission as an expert opinion.<sup>110</sup>

63. Further and in any event, Mr. Glebe’s report presents the Coffin Island site selectively and unrealistically. His photos are taken at sea level and from substantial distances, which minimize the contrast and impact.<sup>111</sup> His images show no equipment or vessels, other than the

---

<sup>104</sup> Muldoon Ex 28 at 3 (para 12); DFO CSAS Report, Outcomes of Consultation Ex 4 at 290-292.

<sup>105</sup> KCS Closing Submissions, November 14, 2025, paras 90-91; Online Reviews Ex 98.

<sup>106</sup> C Glebe Ex 39 and Ex 61. On October 7, 2025 counsel for PLBA requested additional time to enable cross examination of Mr. C Glebe, but the Board denied this request.

<sup>107</sup> C Glebe Ex 39 at 7 (p 4).

<sup>108</sup> C Glebe Ex 39 at 6 (p 2).

<sup>109</sup> C Glebe Ex 61 at 4.

<sup>110</sup> The test for admissibility of expert reports is summarized in *Eastern Canadian Structures Limited*, 2025 NSSC 68, paras 6-8.

<sup>111</sup> C Glebe Ex 39 at 12-32 (pp 14-55).

feed barge, servicing the site. Unlike the photographs from Mr. Muldoon’s and Mr. Goulden’s affidavits (discussed above), Mr. Glebe shows no images of debris from the site littering the beaches or floating in the water. PLBA therefore asks the Board to give this evidence no weight.

**v. *Wildlife impacts (other than salmon, which are addressed below)***

64. Canadian Wildlife Service’s (CWS) recommendation that the 1205 expansion’s lease boundary be located >300 m from Coffin Island has not been integrated into KCS’s proposal. This risks harm to Coffin Island’s colonial migrating bird populations, notably the endangered Roseate Tern. Per CWS, human presence within 300 m of Coffin Island could drive colonial migrating birds to abandon historical nesting locations or their chicks, and expose them to predation.<sup>112</sup> KCS’s proposed boundary is 230 m from Coffin Island’s ordinary high water mark.<sup>113</sup>

65. KCS submits there will be adequate protection because there is already a >400 m buffer from the sea cages to Coffin Island and because they will implement other mitigation measures.<sup>114</sup> However, CWS’s recommendation was for the lease to “**be entirely located >300m from the island,**” in addition to mitigation measures.<sup>115</sup>

66. In contrast to *Town Point*, cited by KCS, a smaller buffer is not recommended by an expert and no alternative boundary is before the Board.<sup>116</sup> Nathaniel Feindel testified that to DFA’s knowledge, KCS has not assessed whether the boundary could be moved to accommodate CWS’s recommendation.<sup>117</sup> We note that moving the site west, closer to the mainland shore, would likely exacerbate the noise and odour impacts impacting Beach Meadows as highlighted above. Moving the site south, farther out of the space between Coffin Island and the shore, may expose the site to greater wave action and increase debris impacts. Moving the site north would mean moving the north end of the array closer to Beach Meadows or Coffin Island. There is simply not enough space to expand 1205’s existing legal boundary without exposing other users of the waters, including local residents and wildlife, to increased negative impacts.

---

<sup>112</sup> CWS Email, Outcomes of Consultation Ex 4 at [450](#).

<sup>113</sup> Proposed Site Map, Outcomes of Consultation Ex 4 at [367](#); N Feindel cross-exam by PLBA, October 9, 2025; see also Turner Ex 38 at [29](#) (p 12).

<sup>114</sup> KCS Closing Submissions, November 14, 2025, paras [114-115](#).

<sup>115</sup> CWS Email, Outcomes of Consultation Ex 4 at [450-451](#) (emphasis in original).

<sup>116</sup> KCS Closing Submissions, November 14, 2025, para [113](#); [Town Point Consulting Inc.](#) (5 January 2024) NSARB 2022-001-002-003, paras [80-82](#), [91](#).

<sup>117</sup> N Feindel cross-exam by PLBA, October 9, 2025.

67. While DFA said they would work with KCS to implement CWS’s recommendations into its FMP, the site boundary is not set out in the FMP: it is defined in the lease and licence proper.<sup>118</sup> Therefore, the Board must decide whether to approve the 1205 expansion as proposed despite its inconsistency with CWS’s recommendation. The fact that KCS currently operates within 300 m from Coffin Island shows that even approving an expansion just to encompass existing operations would be inconsistent with CWS’s recommendation.

68. Additionally, KCS’s debris along the shorelines as discussed earlier poses a risk to shorebirds who nest along Beach Meadows Beach, such as the endangered Piping Plover.<sup>119</sup>

***(3) Section 3(g): the expansion will adversely impact wild salmon and the adverse impacts will not be adequately mitigated***

69. In Jon Carr’s expert opinion, expanding the Coffin Island facility:

will elevate existing pressures on critically endangered local wild Atlantic salmon populations and significantly impair their survival and recovery, likely leading to their extirpation in rivers such as the Medway, Petite and Lahave found closest to Liverpool Bay.<sup>120</sup>

70. KCS’s current 1205 operation “has likely [already] had a negative impact” and the expansion of 1205 (and 1432 and 1433 if they go forward) will “increase the likelihood and magnitude of those impacts.”<sup>121</sup>

71. KCS’s expert Dr. Samways agreed on cross-examination that interactions with aquaculture facilities is one of several threats to wild salmon survival.<sup>122</sup> DFO CSAS found that genetic risks to the Southern Upland (SU) Atlantic salmon population “already exist at the current lease” and because “risks are expected to be at least proportional” to activity intensity, “the risks to the wild Salmon population will be greater” if the number of farmed salmon increase at 1205.<sup>123</sup>

72. Mr. Carr notes that the “primary underlying cause” of significant declines in wild salmon in the Bay of Fundy and Nova Scotia’s SU region “is a decrease in marine survival due to

---

<sup>118</sup> ALLRs, s [54\(1\)\(c\)](#).

<sup>119</sup> CWS Email, Outcomes of Consultation Ex 4 at [450](#).

<sup>120</sup> Carr Ex 31 at [20](#) (p 17).

<sup>121</sup> Carr Ex 31 at [12](#) (p 9).

<sup>122</sup> Samways cross-exam by PLBA, October 8, 2025.

<sup>123</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [303-304](#).

changed ocean conditions.”<sup>124</sup> Aquaculture’s harmful impacts worsen those declines. Mr. Carr cites research showing that observed east coast salmon declines are an order of magnitude greater where aquaculture is present, than observed declines in areas where aquaculture is absent, suggesting “wild salmon populations already made vulnerable by low marine survival are unable to cope with the additional stressors imposed by the impacts of aquaculture.”<sup>125</sup>

73. The harms and risks to wild salmon from salmon aquaculture are set out in detail in Mr. Carr’s reports.<sup>126</sup> They include, among others:

- i. Escaped salmon from aquaculture facilities interbreed with wild populations, causing genetic declines.
- ii. Sea lice can proliferate in aquaculture facilities and can be picked up by passing wild salmon.
- iii. Diseases and pathogens can proliferate in aquaculture facilities and are transmitted to wild fish.

*i. Escapes*

74. Salmon from aquaculture facilities can escape from the sea cages and interbreed with wild populations, causing genetic declines in small and vulnerable wild populations, like those in the Medway, LaHave and Petite Rivers.<sup>127</sup>

75. All salmon experts in this matter (Mr. Carr, Dr. Halfyard, Dr. Samways and Dr. Brian Glebe) agree, as do DFO scientists,<sup>128</sup> that the Medway has a small remaining wild population of Southern Upland Atlantic salmon.<sup>129</sup> Carr identifies the Medway as “likely to have the greatest exposure” to impacts from KCS’s open net pens<sup>130</sup> but notes the LaHave and Petite Rivers also have populations that KCS’s operations put at risk.<sup>131</sup> DFO CSAS concluded that the Medway and LaHave Rivers, along with the majority of salmon rivers in the SU region, are within the range of escapees from 1205, who can travel “up to 200-300km” from their home site.<sup>132</sup>

76. DFO CSAS concluded that the Liverpool Bay expansion (including all three sites) would

---

<sup>124</sup> Carr Ex 31 at [13](#) (p 10, last para).

<sup>125</sup> Carr Ex 31 at [13-14](#) (pp 10-11).

<sup>126</sup> Carr Ex 31 at [21-22](#) (pp 18-19); Carr Ex [69](#).

<sup>127</sup> Carr Ex 31 at [12, 14, 21](#) (pp 9, 14, 18); Samways cross-exam by PLBA, October 8, 2025.

<sup>128</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [285](#).

<sup>129</sup> See e.g. Carr Ex 31 at [12](#) (p 9); Halfyard Ex 30 at [2](#) (para 8); Samways Ex 42 at [6](#) (p 5, para 4); B Glebe Ex 76 at [7](#) (p 3).

<sup>130</sup> Carr Ex 31 at [12, 14](#) (p 9, 11); see also DFO CSAS Report, Outcomes of Consultation Ex 4 at [303](#).

<sup>131</sup> See e.g. Carr Ex 31 at [20](#) (p 17).

<sup>132</sup> DFO CSAS Report, Outcomes of Consultation, Ex 4 at [285, 303](#).

increase the proportion of escapees to local populations in the Medway and Mersey rivers beyond a critical 10% threshold creating significant additional risks to survival and recovery of the Medway population and to restoration of the Mersey population.<sup>133</sup>

77. Mr. Carr recommends use of sterile salmon to mitigate harms caused by escaped salmon interbreeding with wild salmon.<sup>134</sup> This is an obvious method of limiting the damage to vulnerable local populations should salmon escape from 1205. Cultivating sterile triploid salmon meets Aquaculture Stewardship Council (ASC) standards.<sup>135</sup> KCS has reared triploid salmon at an aquaculture site in the Annapolis Basin but not at 1205, although Mr. Szemerda agreed that they could be used there as well.<sup>136</sup>

78. Dr. Glebe's dismissal of triploid salmon's efficacy, on the basis that it impacts production,<sup>137</sup> should be disregarded. Dr. Glebe is offered as an expert on wild salmon, not aquaculture profitability or productivity.<sup>138</sup> KCS used triploid salmon at another Nova Scotia site, and Dr. Glebe does not appear to disagree with Mr. Carr that using triploid salmon in sea cages reduces introgression risks to wild salmon. Use of triploid stock is a necessary compromise to protect wild salmon populations facing extirpation, even if there could be some unspecified, unproven impact on KCS's bottom line.

79. Dr. Glebe asserts generally that KCS has improved salmon husbandry, but there is no proof such measures are actually in place at 1205.<sup>139</sup> KCS has provided no evidence that the "photoperiod control method" is in use or would be used at an expanded 1205. Further, while photoperiod control may temporarily delay onset of breeding maturity in captive fish, it does not sterilize farmed salmon and it is logical to assume that escapees will still mature in the wild and be capable of breeding with wild salmon.

80. In 2021, a hole was discovered in an open net pen at 1205, believed to be made by a seal.<sup>140</sup> KCS's Compliance Manager Jennifer Hewitt testified it was unknown how many fish got

---

<sup>133</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [299-302](#). For details of how they estimated wild populations in the extirpated Mersey, see [301](#).

<sup>134</sup> Carr Ex 31 at [12](#), [20](#) (pp 9, 17).

<sup>135</sup> Carr Ex 31 at [20](#) (p 17); ASC Standard, Carr Ex 31 at [60-61](#) (pp 57-58).

<sup>136</sup> Szemerda cross-exam by PLBA, October 8, 2025.

<sup>137</sup> B Glebe Ex 76 at [10](#) (p 6).

<sup>138</sup> KCS letter of September 22, 2025 regarding Dr. Glebe's qualifications.

<sup>139</sup> B Glebe Ex 76 at [10](#) (p 6).

<sup>140</sup> Nickerson Ex 44 [at 5](#) (para 17(e)). An earlier predator event is also noted in Nickerson Ex 44 at [4](#) (para 17(b)).

out.<sup>141</sup> As well, seals created holes in two nets at a Maine Cooke Aquaculture facility in 2023. Over 50,000 salmon escaped. Mr. Szemerda confirmed the accuracy of a media report which stated that this large loss of fish occurred despite predator netting and properly-tied nets.<sup>142</sup>

81. KCS's weekly dive inspections of 1205<sup>143</sup> could allow a hole or other net damage, and ensuing escapes, to go undetected for almost a week before KCS could effect repairs.

82. Despite Cooke's and KCS's husbandry, escapes can and do happen, creating a significant risk to local wild salmon within 200-300 km of the 1205 facility. Proactively and reactively monitoring nearby salmon rivers for escapes and genetic introgression is crucial. Although only one suspected breach at 1205 has been identified, DFO CSAS notes that "[e]scapes of Atlantic Salmon from finfish aquaculture sites occur regularly, including in Atlantic Canada ... and the true number of escapees are estimated to significantly exceed the number reported."<sup>144</sup> This discrepancy may exist because escapes can happen without the operator knowing. With the expansion comes even more fish present at 1205, increasing the chance of escapes and associated risks to wild salmon in local rivers.

83. KCS downplays and has not adequately assessed the risks to wild salmon posed by the 1205 site, including in its current FMP. In addition to erroneously stating that the salmon rivers around the site are generally considered extirpated and that the Gold River is the nearest salmon river,<sup>145</sup> KCS has not provided any assessment of areas of potential impact. Nor has KCS conducted a more comprehensive assessment including local river surveys testing wild salmon populations for sea lice, disease, or genetic introgression.<sup>146</sup>

## *ii. Sea Lice*

84. The high, unnatural concentrations of salmon in aquaculture sites create conditions for sea lice to proliferate, leading to outbreaks.<sup>147</sup> Sea lice can then be picked up by passing wild

---

<sup>141</sup> Hewitt cross-exam by RQM, October 7, 2025.

<sup>142</sup> Szemerda cross-exam by RQM, October 8, 2025; 50,000 Maine salmon lost to hungry seals Ex 88 at [1](#).

<sup>143</sup> Swim cross-exam by 23 Fishermen, October 9, 2025.

<sup>144</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [297](#).

<sup>145</sup> Excerpt from KCS's FMP, Outcomes of Consultation Ex 4 at [175](#).

<sup>146</sup> Carr Ex 31 at [14](#) (p 11) (middle paragraph); Development Plan, Application Package Vol 1 Ex 5 at [240-256](#) (174-190).

<sup>147</sup> Carr Ex 31 at [16](#) (p 13).

salmon.<sup>148</sup> Dr. Samways confirmed that the waters off Nova Scotia are warming<sup>149</sup>, that warm waters are amenable to sea lice outbreaks and that sea lice can adversely impact the health and survival of individual wild salmon and overall populations.<sup>150</sup> Wild salmon already weakened by other stressors have reduced tolerance to sea lice and pathogens. Mr. Carr’s report cites several studies that conclude that intensifying aquaculture operations is therefore likely to further reduce marine survival for wild smolt passing aquaculture farms.<sup>151</sup>

85. Although sea lice risks are downplayed by KCS, numerous farmed salmon died at Cooke and Mowi aquaculture sites off the Island of Newfoundland’s south coast in the summer of 2025 due to warm waters and sea lice outbreaks.<sup>152</sup> KCS has also had outbreaks at its Annapolis Basin facility<sup>153</sup> and has been “battling sea lice” since the 2000s at some New Brunswick sites.<sup>154</sup> The low prevalence of sea lice in the past in Nova Scotia is due to the limited scale and low concentration of aquaculture. But if more farmed fish are introduced to Liverpool Bay via KCS’s expansion proposal, the risk of sea lice is likely to increase and “become difficult to control.”<sup>155</sup>

86. Dr. Samways asserts that any sea lice associated with 1205 would not put wild salmon at risk because recent telemetry research showed “post-smolts tend to rapidly migrate past aquaculture sites” and therefore generally spend “less than an hour” close to sea cages.”<sup>156</sup> When requested however, he provided only an email and an older study, and no data to support that statement.<sup>157</sup> On cross examination, he agreed that the precise movements of salmon around Liverpool Bay were not known and that it was possible that sea lice could be transported “quite a ways” from the sea cages.<sup>158</sup> As Mr. Carr points out, “[s]ea lice can disperse tens of kilometres in the ocean ... and elevated sea lice levels on wild salmonids have been demonstrated at 30km from salmon farms.”<sup>159</sup> The Medway Harbour mouth is only about 14 km from 1205,<sup>160</sup> and the

---

<sup>148</sup> Carr Ex 31 at [21-22](#) (pp 18-19).

<sup>149</sup> Samways cross-exam by PLBA, October 8, 2025.

<sup>150</sup> Godwin et al Ex 93 at [2](#). Samways cross-exam by PLBA, October 8, 2025.

<sup>151</sup> Carr Ex 31 at [13-15](#) (pp 10-12).

<sup>152</sup> Szemerda cross-exam by PLBA, October 8, 2025; [Ex 85](#).

<sup>153</sup> Nickerson Ex 44 at [17](#) (paras 82-83).

<sup>154</sup> Szemerda cross-exam by 23 Fishermen, October 7, 2025.

<sup>155</sup> Carr Ex 31 at [16](#) (p 13); DFO CSAS Report, Outcomes of Consultation Ex 4 at [304](#).

<sup>156</sup> Samways Ex 42 at [6, 8-9](#) (paras 5, 15).

<sup>157</sup> Samways cross-exam by PLBA, October 8, 2025.

<sup>158</sup> Samways cross-exam by PLBA, October 8, 2025.

<sup>159</sup> Carr Ex 69 at [6](#) (p 2, para 1).

<sup>160</sup> Distance Measurement Ex 90 at [2](#); see also DFO CSAS Report, Outcomes of Consultation Ex 4 at [285](#): “[t]he SU Salmon run in the Medway River in Port Medway Harbour ... is approximately 10–12 km from Liverpool Bay.”

Medway River itself is about 20-21 km,<sup>161</sup> well within the range of sea lice drift.

### *iii. Diseases and Pathogens*

87. Like sea lice, diseases and pathogens also proliferate in aquaculture facilities. They can be transmitted to wild salmon through infected escapees and through wild fish moving within the plume of an infected pen or a disease outbreak.<sup>162</sup> In 2012, an infectious salmon anaemia virus infection was detected in two sea cages at the 1205 facility.<sup>163</sup> DFO concluded that increases in farmed fish in Liverpool Bay may amplify endemic pests and pathogens in that area.<sup>164</sup>

### *iv. Salmon recovery*

88. As stated above, Mr. Carr concludes that KCS's proposed expansion "will elevate existing pressures on critically endangered local wild Atlantic salmon populations and significantly impair their survival and recovery" in the Medway and other rivers.<sup>165</sup> Conversely, Dr. Halfyard cites research on the SU population that concludes that even a small increase in freshwater productivity will significantly reduce the chances of its extirpation.<sup>166</sup>

89. Dr. Halfyard opines the Medway population will recover with proper intervention. The other experts appear to agree on that point as well, though they disagree whether stocking or liming are most effective in achieving recovery.<sup>167</sup> The LaHave River also has a small wild salmon population and "has water quality conducive to salmon reproduction"<sup>168</sup> and could recover with intervention.<sup>169</sup> Planned restoration efforts in the Medway, LaHave and St. Mary's rivers are predicted to increase the viability of these populations and result in their recovery.

90. Local wild salmon populations can recover, and there are plans to achieve this, but the proposed expansion will make their restoration much more difficult or impossible. In Dr. Halfyard's opinion, "[a]dditional mortality in the marine environment, such as any imposed by open net salmon aquaculture," will hinder these efforts.<sup>170</sup>

---

<sup>161</sup> Samways Ex 42 at [6](#) (p 5, para 4); B Glebe Ex 76 at [7](#) (p 3).

<sup>162</sup> Carr Ex 31 at [22](#) (p 19).

<sup>163</sup> Nickerson Ex 44 [at 4](#) (para 17).

<sup>164</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 [at 304](#).

<sup>165</sup> Carr Ex 31 at [20](#) (p 17).

<sup>166</sup> Gibson and Bowlby 2013 Ex 89 at [3](#), [22](#) (pp iii, 18) cited by Dr. Halfyard Ex 68 [at 4](#) (p 1).

<sup>167</sup> Halfyard Ex 68 at [4-5](#) (pp 1-2); Carr Ex 31 at [15](#) (p12 top para); Samways Ex 42 at [11](#) (para 30, p 10); B Glebe Ex 76 at [7-8](#) (pp 3-4).

<sup>168</sup> B Glebe Ex 76 at [7](#) (p 3); see also DFO CSAS Report, Outcomes of Consultation Ex 4 at [303](#).

<sup>169</sup> Halfyard Ex 68 [at 4-5](#) (pp 1-2).

<sup>170</sup> Halfyard Ex 68 [at 6](#) (p 3).

91. KCS’s expert, Dr. Samways, confirmed that both Mr. Carr and Dr. Halfyard are reputable experts in their respective fields.<sup>171</sup> Yet, KCS asks the Board to ignore Mr. Carr’s expertise and the voluminous research on which his opinion is based, simply because Mr. Carr is employed by the Atlantic Salmon Federation.<sup>172</sup> Mr. Carr’s expertise and opinions cannot be seriously questioned as he has affirmed his duty as an expert<sup>173</sup> and his well-researched reports and testimony under cross examination demonstrate his independence, objectivity and substantial credentials.<sup>174</sup> Contrary to KCS’s argument, the *Rattling Beach* hearing involved very different evidence and circumstances.<sup>175</sup> In the present case, as summarized above, Mr. Carr has produced specific and clear evidence of the harms to wild salmon that have been, and will be, caused by 1205 and its expansion.

**v. DFA**

92. Meaningful gaps in DFA’s evidence about containment management and salmon health and, from a containment perspective, in the regulation of the site mean the Board should not use DFA’s evidence to conclude potential impacts on wild salmon will be sufficiently mitigated.

93. First, there is no evidence that DFA (or KCS) monitors any salmon rivers near 1205 for escapes or genetic introgression as part of DFA’s Containment Management program—either proactively or retroactively. DFA therefore has no basis to conclude that the existing site is not impacting the sustainability of wild salmon. It cannot say so either way.

94. Second, DFA’s conclusions that 1205’s animal health performance is satisfactory<sup>176</sup> and its Chief Veterinarian’s opinions about farmed fish health do not shed light on wild salmon health, especially as production increases and biophysical characteristics change. Dr. Amanda Swim’s expertise<sup>177</sup> and DFA’s Aquatic Animal Health Unit’s responsibilities<sup>178</sup> are limited to farmed fish health, not health or genetic impacts of farmed salmon on wild salmon. Further, notable omissions in DFA’s fish health evidence limit its probative value as to whether disease and sea lice levels will be at safe levels for wild salmon. For example, DFA did not assess to

---

<sup>171</sup> Samways cross-exam by PLBA, October 8, 2025.

<sup>172</sup> KCS Closing submissions, November 14, 2025, paras [128-132](#).

<sup>173</sup> Carr Ex 31 at [5](#) (para 6); *White Burgess Langille Inman v Abbott and Haliburton Co.*, [2015 SCC 23](#), paras [26-32](#).

<sup>174</sup> Mr. Carr’s CV can be found at Carr Ex 31 at [671-695](#) (pp 668-691).

<sup>175</sup> *Rattling Beach*. (28 January 2022) NSARB 2021-001.

<sup>176</sup> Swim Ex 53 at [8](#) (para 43); Performance Review Report Ex 7 at [5](#).

<sup>177</sup> Swim Ex 53 at [2](#) (para 4), at [12-15](#) (CV).

<sup>178</sup> Swim Ex 53 at [2-3](#) (paras 2, 8-9), at [6-7](#) (paras 34-36); see also AMRs, ss [9\(1\)](#), [18-29](#).

what extent currents at 1205 may carry sea lice from the farmed salmon towards wild salmon.<sup>179</sup> And although Dr. Swim provides a general conclusion that 1205 has followed “aquatic animal health regulatory processes,”<sup>180</sup> DFA did not provide any evidence regarding sea lice presence at 1205<sup>181</sup> or showing that DFA meaningfully assessed sea lice risks of the site.<sup>182</sup> There is also no evidence from DFA suggesting it considered how the currently low pathogen and sea lice presence at the site may rise with increasing production, especially in combination with increasing water temperatures and/or water oxygen issues.<sup>183</sup> As DFO CSAS notes, disease and sea lice levels are not static:

the historical use of approved drugs and pesticides may not be a predictor of future disease outbreaks as production within the bay increases or as other influencing factors change. The addition of farmed fish to an area can reasonably be expected to amplify both endemic pathogens and pests in the [Liverpool Bay] area, due to the increase in the number of host fish.<sup>184</sup>

95. Third, DFA has not provided any assessment of which salmon rivers may be impacted by a breach at 1205.<sup>185</sup> The absence of such evidence is concerning for multiple reasons. Identifying areas of potential impact is not only legally required as part of KCS’s FMP,<sup>186</sup> but also practically required in order “to determine the appropriate response to a breach.”<sup>187</sup> DFA appears to have approved a FMP for 1205 which erroneously states that the salmon rivers around the site are generally considered extirpated and that the Gold River (>59.90 km from the site) is the nearest salmon river.<sup>188</sup> These statements by KCS, approved by DFA, are contrary to the evidence of all the salmon experts who provided reports in this proceeding (see above). This

---

<sup>179</sup> Swim Ex 53 at [5](#) (para 25). Dr. Swim’s note that the low average current speeds is only relevant to farmed salmon “critical swimming speeds or abilities to maintain position in the water column.”

<sup>180</sup> Swim Ex 53 at [8](#) (para 43).

<sup>181</sup> Swim Ex 53 at [7](#) (paras 37-41).

<sup>182</sup> For example, despite DFA’s ability to access KCS’s sea lice count records and audit sea lice monitoring (MCRs, J Feindel Ex 52 at [23](#) (s 6.18); AMRs, [s 38](#)), there is no information about DFA looking at those records, conducting their own counts, or about the circumstances of assessments relating to sea lice procedure compliance.

<sup>183</sup> Dr. Swim did not provide any evidence regarding water oxygen at the site and simply says the temperature range is “within the known acceptable range for Atlantic salmon” (see Swim Ex 53 at [5](#) (paras 27-29)).

<sup>184</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [304](#).

<sup>185</sup> Mr. Feindel acknowledges DFO’s statements that the Medway is an Atlantic salmon river and that 1205 is within the range and migration pathways of the SU population (N Feindel Ex 55 at [11](#) (para 75), but neither he nor Ms. Feindel identify or assess any areas of potential impact (see J Feindel Ex [52](#)).

<sup>186</sup> AMRs, s [15\(d\)](#).

<sup>187</sup> See the black text under “6.5.1 Areas of potential impact if a breach occurs” in Outcomes of Consultation, Ex 4 at [175](#) which PLBA says is part of DFA’s FMP template, based on Ms. Feindel’s testimony that the black text earlier on that page starting with “Describe the area(s) of potential impact if a breach occurs ...” is part of the template.

<sup>188</sup> See s 6.5 of KCS’s FMP “Response to a breach of containment,” Outcomes of Consultation Ex 4 at [175-176](#).

significant oversight indicates that DFA approached its assessment of 1205’s containment management performance<sup>189</sup> (and possibly the FMP approval process)<sup>190</sup> as a rubber-stamping exercise, ensuring only that “[a]reas of potential impact of a breach [are] described”,<sup>191</sup> without independently analyzing the description’s adequacy. It also suggests DFA does not in fact effectively regulate and monitor 1205. Therefore, the Board should not use DFA’s representations that it is satisfied with KCS’s operation of 1205 and that KCS “has complied with the criteria ... in the Containment Management Framework”<sup>192</sup> to find that risks to wild salmon are being, or will be, effectively mitigated at this site.<sup>193</sup>

96. Considering all the above, there is no evidence that real risks to wild salmon are being, or will be, sufficiently mitigated. But the Board does have evidence that:

- the site at issue in this application is too close to active salmon runs;
- the active salmon runs at issue in this application are spawning grounds for an endangered wild salmon population, whose population levels remain critically low;
- “[e]ven with the strongest containment and management plans it is inevitable that fish will escape (i.e. because of containment failure or human error);”<sup>194</sup>
- marine open net pen salmon farming is one cause of wild salmon declines;
- fragile populations, like the one at issue here, are more susceptible to additional stressors from the impacts of open net pen salmon aquaculture;
- additional marine mortality, such as any imposed by open net pen salmon aquaculture, will hinder restoration and recovery efforts,<sup>195</sup> and
- the wild salmon population at issue is “biologically unique, and its extirpation would constitute an irreplaceable loss of Atlantic Salmon biodiversity.”<sup>196</sup>

97. The full suite of evidence on wild salmon proves that the existing 1205 operation is highly likely harming the sustainability of critically endangered SU Atlantic salmon populations in the Medway, LaHave and other rivers near Liverpool Bay. 1205 and its proposed expansion will further jeopardize any chance of recovery and significantly increase the likelihood of

---

<sup>189</sup> J Feindel Ex 52 at [10](#) (para 66); Performance Review Report Ex 7 at [4-5](#).

<sup>190</sup> Ms. Feindel testified that DFA last approved section 6.5 of KCS’s FMP for 1205 in 2018.

<sup>191</sup> MCRs, J Feindel Ex 52 at [22](#) (s 6.5); see also AMRs, s [15\(d\)](#).

<sup>192</sup> J Feindel Ex 52 at [10](#) (para 66); Performance Review Report Ex 7 at [4-5](#).

<sup>193</sup> Further, in the “Breach response” subsection of its Development Plan, KCS simply alludes to its “Liverpool (#1205) ... breach response plan ... approved by [DFA]” and does not indicate an intention to update this plan (Application Package Vol 1 Ex 5 at [256](#) (p 190)).

<sup>194</sup> Carr Ex 31 at [17](#) (p 14).

<sup>195</sup> Halfyard Ex 68 [at 6](#) (p 3).

<sup>196</sup> DFO CSAS Report, Outcomes of Consultation Ex 4 at [297](#).

extirpation of these genetically distinct populations, whereas denying the application entirely, or not permitting the operation to expand further, would both positively impact wild salmon sustainability to varying degrees. This factor therefore weighs heavily against approving this application.

***(4) Section 3(a): approving this application is not the optimum use of marine resources***

98. Considering the assessments of the s 3 factors discussed above, along with all the evidence from all the parties and all the competing interests, the proposed expansion is **not** an optimum use of marine resources. The application should be rejected in its entirety.

99. KCS has not shown that any meaningful benefit will flow from approving this expansion. The evidence shows, at best, only speculative economic contribution and no social benefit, suggesting that approving any part of this application would be contrary to the spirit of s 43A(g) of the Act which contains the purpose of “ensur[ing] that coastal communities derive positive social and economic benefits from aquaculture.”

100. Set against that glaring evidentiary gap is the overwhelming weight of evidence of negative impacts on varied users of the public waters and the sustainability of endangered wild salmon, necessitating denial of the application. These numerous adverse impacts have not been addressed and will not be sufficiently addressed in KCS’s FMP. KCS and DFA evidence does not provide any confidence that the ongoing debris and noise impacts will be sufficiently mitigated nor any insight into the future of endangered wild Atlantic salmon, especially as production increases and biophysical characteristics change, like warming waters. Consequently, using the purposes in ss 43A(b) and (h) of “ensur[ing] aquaculture is conducted under conditions and in accordance with controls that protect the environment” and “with due regard to the health, well-being and recovery of species at risk,” as well as s 43A(g), as yardsticks for finding the best compromise between competing interests also leads to a full rejection of the proposal. No doubt the fisheries evidence engaging s 43A(d), which refers to “equity, fairness and compatibility in access to, and utilization of, public water resources for aquaculture,” will also lead the Board to this conclusion.

101. A meaningful application of the precautionary principle also requires rejecting the entire application. In the present case, the harm to endangered salmon is clear. But even if there were

some uncertainties, the evidence remains compelling. Combined with the very serious threats and the high risks of extirpation, the precautionary principle must lead to the dismissal of this application.

102. That a full rejection is the right conclusion is confirmed when considering the Doelle-Lahey concept of having low environmental and social impacts that decrease over time and high economic and social value that increase over time. In this case, the opposite is true. As the evidence regarding debris, noise, odour, wildlife, and endangered wild salmon impacts, the 1205 expansion is already having, and will continue to have, high negative social impacts on the community which have gone unaddressed for years and high negative environmental impacts that will likely increase—not decrease—over time. Additionally, there is no social value: the vast majority of the local community does not want this expansion. And all the evidence relating to potential economic benefits, including potential tourism benefits, is far from compelling. Unlike this Board’s decision in *C&G*, in the present case, the proposal lacks social licence and provides no tangible economic prosperity, social well-being and environmental sustainability for the Liverpool Bay community, the Mi’kmaq and other Nova Scotians and for wild salmon.<sup>197</sup>

**C. In the alternative, if the Board approves any expansion of the Coffin Island site, several conditions should be imposed to mitigate negative impacts**

103. PLBA asks the Board to deny KCS’ application in its entirety. If however, the Board determines that it will approve any part of the application, it is imperative that this approval be subject to lease and licence conditions that may, to some degree, help protect Liverpool Bay and local wild salmon populations. These conditions will not fully prevent harm from the facility but may help reduce it.<sup>198</sup> Such conditions include:

- 1) KCS must stock exclusively sterile (triploid) non-transgenic salmon at 1205;
- 2) KCS must conduct an effective monitoring program for escapes and wild salmon for genetic introgression, sea lice and disease loads in local rivers;
- 3) KCS must adhere to ASC and NASCO best practices and standards for responses to sea lice and disease outbreaks that are specifically designed to protect wild salmon;<sup>199</sup>
- 4) KCS shall place traceability markers within each farmed salmon that enable tracing of

---

<sup>197</sup> *C&G Aquaculture*, paras [46](#), [66](#).

<sup>198</sup> In relation to conditions 1 through 4 regarding wild salmon, see Carr Ex 31 at [12](#) (p 9, last para) [16](#) (p 13), [18-19](#) (pp 15-16). These conditions will not prevent escapes, but will help contain the damage escapees cause. Conditions will assist with noise and debris, but will not prevent debris breaking loose from the facility or mitigate odours.

<sup>199</sup> ASC, Carr Ex 31 at [56-62](#) (pp 53-59); NASCO, Carr Ex 31 at [547-589](#) (pp 543-586).

escapees to their original site and open net pen;

- 5) KCS shall use inflatable buoys and cease use of buoys containing Styrofoam, as recommended by Nova Scotia Environment and Climate Change;
- 6) KCS shall place identifying marks on all its equipment and infrastructure components installed or used at 1205, so that it can be identified easily should it break loose;
- 7) KCS shall conduct weekly beach inspections, including immediately after severe weather events, in Liverpool Bay to locate and collect debris lost from its facility;
- 8) KCS shall take all necessary steps forthwith to seek relevant approvals, and if approved, shall connect 1205 to shore-based electrical power, and use it to power all feeding and oxygenation equipment and activities during the period of the lease; and
- 9) KCS must reposition and operate the 1205 feed barge and oxygenation equipment at the south end of the array, and use it at that location exclusively going forward.

**V. Relief Sought**

104. Given 1205's negative impacts on other users of the public waters, wild salmon, and other s 3 factors, PLBA asks the Board to deny KCS's application and expansion request.

105. In the alternative, if all or part of this application is granted, PLBA asks that the Board impose the conditions set out in paragraph 102 above.

ALL OF WHICH IS RESPECTFULLY SUBMITTED

---

James Gunvaldsen Klaassen  
Barrister & Solicitor

---

Kacie Oliver  
Barrister & Solicitor