

**IN THE MATTER OF AN ARBITRATION UNDER CHAPTER ELEVEN OF
THE NORTH AMERICAN FREE TRADE AGREEMENT
AND THE UNCITRAL ARBITRATION RULES**

BETWEEN:

**WILLIAM RALPH CLAYTON, WILLIAM RICHARD CLAYTON,
DOUGLAS CLAYTON, DANIEL CLAYTON AND BILCON OF
DELAWARE INC.**

Claimants

AND:

GOVERNMENT OF CANADA

Respondent

**Witness Statement of Mark McLean
November 6, 2017**

TABLE OF CONTENTS

I.	Introduction.....	2
A.	The Areas Near WPQ and BPQ are Significantly Different Regarding the Presence of Whales	3
B.	The Areas Near WPQ and BPQ are Significantly Different Regarding the Lobster Fishery	6
C.	The Same Mitigation Measures Would be Less Effective at WPQ than at BPQ.....	8
II.	Conclusion	11

I. Introduction

1. My name is Mark McLean. I am currently Manager of the Fisheries Protection Program in the Maritimes Regional Office at the Department of Fisheries and Oceans (“DFO”) in Dartmouth, Nova Scotia. My responsibilities include implementing the mandate of the Fisheries Protection Program, which involves ensuring the application of the Fisheries Protection Provisions of the *Fisheries Act* and aspects of the *Species at Risk Act* and their related policies. I have held this position since April 2013. Prior to that, I was Section Head for Marine Habitat Protection at the Fisheries Protection Program (formally known as Habitat Management Program). I submitted two Affidavits in the Jurisdiction and Liability phase of this arbitration, for the purposes of explaining the participation of DFO in the environmental assessment (“EA”) of the Whites Point Quarry (“WPQ”) project.

2. I am submitting this Witness Statement in order to correct certain statements made by the Claimants about the similarities between the environments at the proposed location of the WPQ project and the location of the Black Point Quarry (“BPQ”) project. I am familiar with both projects. Regarding WPQ, I was involved throughout much of the EA process for the project. I had the responsibility to lead the review of the WPQ project for DFO, including EA and regulatory reviews. I coordinated and provided DFO with expert advice for the joint EA process for the WPQ project. Had the project proceeded, I would have led on the reviews of any applications for DFO authorizations or permits. Regarding BPQ, my responsibilities included performing management oversight to staff who provided DFO expert advice under the *Canadian Environmental Assessment Act*. I specifically reviewed responses, prepared by my staff, to EA advice requests concerning the BPQ project.

3. In particular, I wish to correct for the record a number of inaccurate statements made by one of the Claimants’ experts, Mr. David Estrin, about the marine life near the WPQ and the BPQ. Mr. Estrin questions why “concerns about WPQ approvability can be considered reasonable having regard to the fact that in 2016 both Canada and Nova Scotia approved the EA for the BPQ, despite evidence in the EA process to the effect

that: right whales and a lobster fishery were in the area; and that BPQ will generate 100% more aggregate shipping per year than WPQ.”¹ In this Witness Statement, I provide a DFO perspective on the significant differences between the two sites with respect to the presence of endangered whales and the abundance of lobster.

A. The Areas Near WPQ and BPQ are Significantly Different Regarding the Presence of Whales

4. The WPQ project would have been located along the Bay of Fundy, whereas the BPQ project is located on Chedabucto Bay. This difference is critical to understanding the reasons why the potential impacts of one project cannot be compared to the potential impacts of another.

5. In order to adequately explain the presence of right whales in the two areas, it is necessary to look to the empirical data. DFO collects whale sighting data to estimate the presence of whales in a marine environment. Whales are highly mobile, and not always identified at the individual level (observers cannot always determine if a whale is counted multiple times). Sighting data provides a reasonable estimate of the relative abundance of whales in a marine environment. A map prepared by DFO on sighting data accompanies this Statement.² The map shows sightings of right whales in the Bay of Fundy and Chedabucto Bay.

6. The number of right whale sightings between the two sites differs significantly. The map reveals that sightings of right whales are dramatically higher in the Bay of Fundy than Chedabucto Bay. The reason for this is relatively simple. The Bay of Fundy is a known feeding, birthing, courtship, and nursery area for North Atlantic right whales and therefore contains one of the only two critical habitats identified for this species in Canada. A large proportion of the known population of North Atlantic right whales use the Bay of Fundy or Roseway Basin during the summer and autumn months as a feeding, courtship, and nursery area. In contrast, while Chedabucto Bay is a known feeding area in

¹ Expert Reply Report of David Estrin, August 20, 2017 (“Estrin Reply Report”), ¶ 171.

² **R-769**, Whalesitings Database, Population Ecology Division, Fisheries and Oceans Canada, Dartmouth, NS, [2017/10/11].

winter and spring for fin whales, amongst other whale species, the lack of right whale sightings demonstrates that right whales are not known to frequent the area near BPQ.

7. The difference in the data on right whale sightings between the areas near WPQ and BPQ indicates that the risks to right whales created by the two projects differed significantly. The risk of vessel strikes that kill or maim the right whale would have been sharply higher near WPQ than BPQ. The North Atlantic right whale swims relatively slowly, and has a habit of resting or feeding at the water surface for long periods. When engaging in this habit, right whales demonstrate limited responsiveness to ship noise. Thus the WPQ area has a higher presence of a whale species that are more susceptible to vessel strikes than the BPQ area. Moreover, the risk of blasting on the right whale would be higher at WPQ than at BPQ, due to the higher abundance of right whales at WPQ.

8. Mr. Estrin appears to take the position that the risk of harm to whales at WPQ should have been deemed acceptable because, “the Federal Environment Minister approved the BPQ with a condition that specifically accepts that collisions of shipping vessels with whales and other species at risk would continue to occur: ‘3.6 For Designated Project-related vessels transiting between shipping lanes and the marine terminal, the Proponent shall implement measures to mitigate the risk of collisions with whales. [...]’”³

9. However, it is imperative to acknowledge the different status of the North Atlantic right whales, which are present around WPQ, and the fin whales, which are present around BPQ, under the *Species at Risk Act* (“SARA”). The North Atlantic right whale is listed as “endangered” under SARA.⁴ An “endangered species” means a wildlife species that is facing imminent extirpation or extinction.⁵ Species listed as endangered, extirpated, or threatened are placed under Schedule 1 of SARA. These species are legally protected under SARA. Subsection 32(1) of SARA states: “No person shall kill, harm, harass, capture or take an individual of a wildlife species that is listed as an extirpated

³ Estrin Reply Report, ¶ 182.

⁴ R-438, *Species at Risk Act*, S.C. 2002, c. 29 Assented to 2002-12-12, Schedule 1.

⁵ R-827, *Species at Risk Act*, S.C. 2002, c. 29 Assented to 2002-12-12, s. 2(1), “endangered species”.

species, an endangered species or a threatened species.”⁶ Section 33 provides: “No person shall damage or destroy the residence of one or more individuals of a wildlife species that is listed as an endangered species or a threatened species, or that is listed as an extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada.”⁷

10. The North Atlantic right whale was a *SARA* list species noted in the WPQ project. Thus the recovery strategy at the time of the WPQ project for the right whale states: “[t]here is no scope for allowable human-induced mortality, since population abundance is estimated as critically low and the population appears to be declining toward extinction.”⁸

11. Estimates on North Atlantic right whale populations reveal the species’ vulnerability to extinction. Historically, whaling reduced the population from its natural levels. While the population has shown some growth in recent years, the estimated number of individuals remains close to 500.⁹ The North Atlantic right whale remains critically endangered. With such a small population, the population trend could change quickly.

12. As noted above, the area near BPQ has some presence of fin whales, rather than right whales. Fin whales are listed under *SARA* as a “species of special concern”.¹⁰ This means a wildlife species that may become threatened or endangered because of a combination of biological characteristics and identified threats. The basic prohibitions against harming a species or its residence for endangered species, and the prohibition

⁶ **R-827**, *Species at Risk Act*, S.C. 2002, c. 29 Assented to 2002-12-12, s. 32(1).

⁷ **R-827**, *Species at Risk Act*, S.C. 2002, c. 29 Assented to 2002-12-12, s. 33.

⁸ **R-828**, Fisheries and Oceans Canada, Recovery Potential Assessment for Right Whale (Western North Atlantic Population), September 2007, p. 2.

⁹ **R-829**, Fisheries and Oceans Canada, Action plan for the North Atlantic right whale (*Eubalaena glacialis*) in Canada: Fishery Interactions, 2016, p. 3, available at: <http://www.sararegistry.gc.ca/default.asp?lang=En&n=F6E69C11-1>.

¹⁰ **R-773**, Government of Canada website excerpt, Species at Risk Public Registry, Schedule 1, Fin Whale Atlantic population Species Profile (May 2005).

against destruction of critical habitat, do not apply to species listed under *SARA* as “species of special concern”.

13. The most recent estimate of fin whale abundance in Atlantic Canadian waters is around 1,360 animals.¹¹ However, the world-wide population of fin whales is approximately 80,000. Thus while the North Atlantic right whale population is in the hundreds, fin whale populations are at a much larger scale, in the tens of thousands. Accordingly, although Mr. Estrin notes that the BPQ project received approval despite the risk of vessel strikes on whales, the primary species of whales concerned in each project was different in key respects. Unlike the fin whale, the North Atlantic right whale had and has an endangered status under *SARA*. The endangered state of the North Atlantic right whale increases the risk of population effects from the loss of very few individuals (i.e., one). It is thus subject to much stricter protections than the fin whale.

14. In sum, the presence of right whales is significantly greater near WPQ than BPQ. Given the North Atlantic right whale’s endangered status and critically-low population, applicable law permits no scope for human-induced mortality on this species, unlike the fin whale. Yet the risk of vessel strikes on the right whale was much higher in WPQ than BPQ. Thus from a DFO perspective, the factual and legal context in which BPQ received approval differed significantly from the WPQ project. Mr. Estrin’s comparison between the two projects glosses over critical differences regarding right whales.

B. The Areas Near WPQ and BPQ are Significantly Different Regarding the Lobster Fishery

15. As noted above, Mr. Estrin refers to the lobster fisheries in the WPQ and BPQ areas. Yet there is a significant difference between the number of lobsters and their importance to the local economy between the two sites.

16. Most population information on lobsters in the region is based on lobster landings. Landings are defined as the part of the catch that is put ashore. DFO considers

¹¹ **R-830**, *Lawson and Gosselin*, Distribution and Preliminary Abundance Estimates for Cetaceans Seen During Canada’s Marine Megafauna Survey - A Component of the 2007 TNASS, 2009, p. v.

that the data on lobster landings is a good indication of the relative abundance of lobster in the two areas.

17. The lobster data maps that accompany this Statement¹² demonstrate that lobsters are significantly more concentrated around the WPQ area than the BPQ area. Grid 80 in the first page of the lobster data maps¹³ covers the area where the WPQ project would be located. Grid 340 covers the area where BPQ is located.¹⁴ Lobster landings in grid 80 cover a range from 241 metric tonnes (“MT”) to 646 MT between 2005 and 2016. In contrast, over the same period lobster landings in grid 340 range from 5 MT to 109 MT. In 2007, when the JRP issued its Report, lobster landings in grid 80 were 241 MT. In 2016, when the BPQ EA report was issued, lobster landings in grid 340 were 54 MT. Thus during the relevant time for each project (2007 for WPQ, 2016 for BPQ) the WPQ area contained 346% more lobster landings than the BPQ area.¹⁵

18. In addition to lobster landings, one can consider the available data on lobster trap hauls and fishing licenses in the two areas. Lobster trap hauls refer to the number of lobster traps set and retrieved regardless of catch. This information provides a measure of the fishing effort independent from the landing data. On trap hauls, using the relevant time for each project (2007 for WPQ, 2016 for BPQ), grid 80, the WPQ area, contained 304,206 trap hauls; grid 340, the BPQ area, contained 75,625 trap hauls.¹⁶ Thus the WPQ area had 302% more trap hauls than the BPQ area at the relevant times.¹⁷ On the number of lobster fishing licenses between the WPQ area and BPQ area, at the relevant time for each project, the number of lobster fishing licenses in grid 80, the WPQ area, was 52; in

¹² **R-777**, Fisheries and Oceans Canada, unpublished fisheries data, October 2017.

¹³ **R-777**, Fisheries and Oceans Canada, unpublished fisheries data, October 2017, p. 1.

¹⁴ **R-777**, Fisheries and Oceans Canada, unpublished fisheries data, October 2017, p. 2.

¹⁵ To compare 2007 data for each project, the WPQ area contained 392% more lobster landings than the BPQ area.

¹⁶ Data is from lobster landing chart (**R-777**, Fisheries and Oceans Canada, unpublished fisheries data, October 2017, p. 3).

¹⁷ To compare 2007 data for each project, the WPQ area had 444% more trap hauls than the BPQ area (**R-777**, Fisheries and Oceans Canada, unpublished fisheries data, October 2017, p. 3).

grid 340, the BPQ area, the number was 8.¹⁸ Thus the WPQ area had 550% more lobster fishing licenses than the BPQ area at the relevant times.¹⁹

19. Higher concentrations of lobsters in the WPQ area meant there would be a higher risk to the species and, resultantly, to the local fisheries from a quarry and marine terminal project than in BPQ. DFO's main concerns in the WPQ included potential behavioural changes due to blasting; impacts from the introduction of invasive species; and loss of access to resources due to shipping activities.

20. In sum, although Mr. Estrin notes that there were lobster fisheries near WPQ and BPQ, he fails to acknowledge the significant differences in the size of the lobster fisheries between the two areas. Empirical data demonstrates that the areas near the WPQ project had much higher lobster landings, trap hauls, and lobster fishing licenses than the BPQ. Accordingly, from a DFO perspective, the WPQ project posed a higher risk to lobsters than the BPQ project.

C. The Same Mitigation Measures Would be Less Effective at WPQ than at BPQ

21. As I explained above, the facts are that the risk of impacts to endangered North Atlantic right whales and to lobsters and the lobster fishery were far greater at WPQ than they are at BPQ. Right whales and lobsters had significantly higher concentrations near WPQ. Thus the same mitigation measures to address the effects of BPQ would be less effective at WPQ. For instance, the same vessel speed restrictions at BPQ would not be as effective at WPQ to meet *SARA*'s requirement to have zero human-induced mortality on right whales, due to the higher prevalence of endangered right whales in the WPQ area.

22. With respect to lobsters, Mr. Estrin states "Bilcon proposed to define vessel approach/departure course in consultation with local fishermen."²⁰ He notes that the same

¹⁸ Data is from lobster landing chart (R-777, Fisheries and Oceans Canada, unpublished fisheries data, October 2017, p. 3).

¹⁹ To compare 2007 data for each project, the WPQ area had 767% more lobster fishing licenses than the BPQ area.

approach was recommended and accepted in the BPQ.²¹ However, as explained above regarding data on lobster landings, trap hauls, and lobster fishing licenses, the lobster fishery in the WPQ area is significantly larger than the BPQ area. During lobster season the area near WPQ would be covered in lobster traps. This would make conflicts almost unavoidable. In its presentation at the JRP hearing, Lobster Fisher Association 34 stated:

It would not be feasible for lobstermen to have to move their traps once every two weeks before Bilcon set off their blasts and then move the traps back onto the fishing grounds.[...] It could be days before fishermen get their gear back into the fishing grounds. On top of this is the added cost of fuel and labour to get this work done. If the proposed quarry goes ahead, fish harvester will be displaced from their traditional fishing grounds. It is absolutely unacceptable that lobstermen will be expected to spend four days a month during January to April to move gear in an [*sic*] out of their fishing grounds.²²

The JRP determined that Bilcon's proposed mitigation measure of a call-in line to advise fishers when ships are scheduled to arrive at the terminal would not be technically feasible.²³ The same issues did not arise in the BPQ project. The smaller prevalence of the lobster fishery meant that mitigation measures could be more effective at BPQ.

23. Given the significant differences between the impact of the WPQ project and the BPQ project on right whales and lobsters, it would be necessary for government officials to select different mitigation measures for the two projects. The WPQ project could have received approval subject to stringent conditions under a *Fisheries Act* Authorization or *SARA* Permit that could have significantly impacted the project's operations. For example, if stringent shipping conditions were imposed, the project may have delivered far less aggregate than the proponents anticipated.

²⁰ Estrin Reply Report, ¶ 492.

²¹ Estrin Reply Report, ¶ 493.

²² **R-275**, LFA 34 Management Board, "Presentation to the Joint Review Panel Whites Point Quarry and Marine Terminal Project Public Hearings", June 27, 2007, p. 6.

²³ **R-212**, Environmental Assessment of the Whites Point Quarry and Marine Terminal Project, Joint Review Panel Report, October 2007, p. 76.

24. Moreover, future regulatory decisions could have affected the operations of the WPQ project. As noted, WPQ would have been located in close proximity to the feeding, birthing, courtship, and nursery area of a species that is highly protected through regulations due to its endangered status. Either before or after WPQ started, government officials, including DFO, could have imposed conditions that restricted shipping speeds in order to minimize the risk of human-induced mortality through vessel strikes on right whales. For example, speed restrictions were recently put in place in the Gulf of St. Lawrence to protect right whales²⁴; these restrictions have been strictly enforced through speeding fines²⁵ and compelled shipping vessels to choose other ports in order to avoid the added costs of reducing speeds. Government officials could place similar speed restrictions in the Bay of Fundy. If DFO officials imposed strict speed reductions affecting the WPQ project, this could have undermined the proponents' proposed shipping plans. DFO could have also imposed conditions limiting shipping to times when visibility was good, which is often not the case in the Bay of Fundy. All of these conditions could have affected the proponents' aggregate export plans from the marine terminal.

25. While Mr. Estrin declares in his Report, “[s]ince at least 2000, Nova Scotia never met a quarry or marine terminal project it did not like and approve,”²⁶ the reality is to the contrary. Mr. Estrin's views appear to be based on the false assumption that because a quarry project is approved, it was accepted as presented without alteration by government regulators. Many of the quarries that were first presented to DFO were modified at the strong recommendations of myself or other government officials before reaching the EA phase. The reasons could include project sizes and locations that would have had unacceptable environmental impacts. Moreover, some projects never reached the EA phase, as the proponents realized that strong public and government concerns would impact their acceptability. These projects were never registered for EA. Thus it is

²⁴ **R-831**, Canadian Coast Guard, Written Notices to Shipping – Maritimes, Search Results of Notices Issued on September 22, 2007, p. 2, Gulf of St. Lawrence Notice M1970/17.

²⁵ **R-832**, CBC News article, “More speed fines levied against ships in Gulf of St. Lawrence”, October 26, 2017.

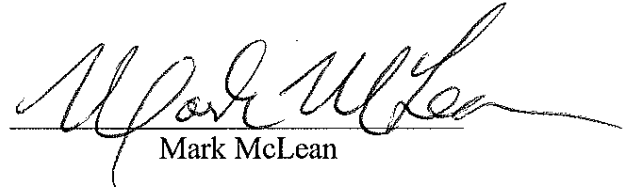
²⁶ Estrin Reply Report, ¶ 267.

incorrect to state that Nova Scotia approved every quarry project presented to government as originally proposed.

II. Conclusion

26. As a DFO official in Nova Scotia with 18 years of experience reviewing environmental assessment projects, it is my experience that no two projects are completely alike. Each one must be assessed based on its individual context. The fact is that significant differences separate the WPQ project and the BPQ project concerning right whales and lobsters, how the projects would affect these species, and whether similar mitigation measures could adequately address such effects.

Dated: November 6, 2017



Mark McLean