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 AND DANIEL CLAYTON AND BILCON OF DELAWARE INC.

Claimants

AND:

GOVERNMENT OF CANADA

Respondent

AFFIDAVIT OF MARK McLEAN

I, Mark McLean, residing at 12 Rose Street, in the City of Dartmouth, in the province of Nova Scotia, Canada, MAKE OATH AND SAY AS FOLLOWS:

A. PERSONAL BACKGROUND

1. I am the Section Head of the Marine Habitat Protection Section in the Maritimes Regional Office of the Department of Fisheries and Oceans ("DFO").

2. I hold a Bachelor of Science with a major in Biology from Acadia University (1992) and a Master of Environmental Studies from York University (1997). Since graduating from university I have been employed by the Nova Scotia Department of Environment and Labour ("NSDEL"), the Canadian Environmental Assessment Agency (the "Agency"), and DFO.

3. I was an Environmental Assessment Officer with NSDEL from February 1999 to January 2004. While employed with NSDEL I participated in an interchange assignment with DFO's Habitat Management Division as a Habitat Assessment Biologist (May 2002-April 2003). While I was not the primary person responsible for the file during this period, I was involved in the environmental assessment ("EA") of the Whites Point project.

4. In January 2004, I left NSDEL and became a Senior Program Officer with the Agency's Regional Office in Halifax. I worked there until October 2005 when I transferred to DFO as a Senior Environmental Analyst with the Habitat Management Division of DFO's Maritimes Region Office. Here, I was also involved in the EA of the Whites Point project. I assumed my current position as Section Head of DFO's Marine Habitat Protection Section in June, 2009.

5. In each of the positions described above I was responsible for the coordination of the EA process, and in particular, the assessment of projects subject to multi-jurisdictional EAs, comprehensive studies and/or panel reviews.

B. THE DEPARTMENT OF FISHERIES AND OCEANS AND ENVIRONMENTAL ASSESSMENT IN THE MARITIMES REGION

1. DFO Involvement in Federal Environmental Assessment Process

6. In my experience, DFO's Maritimes Regional Office becomes involved in the federal EA process under the *Canadian Environmental Assessment Act* (the "*CEAA*") in one of two ways: (1) as the responsible authority ("RA"), that is, the department responsible for conducting an EA; and (2) as a department providing specialist advice on fish and fish habitat to other federal departments conducting an EA. As a general matter, DFO's EA responsibilities are managed by the Habitat Management Division ("HMD"),[1] whose mandate is to protect and conserve fish and fish habitat in support of Canada's coastal and inland fisheries resources.

[1] There are some instances where different groups within DFO will manage an EA rather than HMD, such as when the project is a Small Craft Harbours project. However, none of these particular instances are relevant in this case.

7. DFO becomes an RA in a federal EA when it must exercise a power, duty or function in respect of a proposed project (often referred to as a "trigger") under s. 5(1) of the *CEAA*. The most common type of power, duty or function that DFO is called upon to exercise is the "issu[ance of] a permit or licence, grant[ing of] an approval or tak[ing of] any other action for the purpose of enabling the project to be carried out in whole or in part."[2] In turn, the most common of these permits, licences or approvals (i.e., triggers) are:

- An authorization for the destruction of fish by means other than fishing (*Fisheries Act*, s. 32).
- An authorization for the harmful alteration, disruption or destruction of fish habitat (a "HADD authorization") (*Fisheries Act*, s. 35(2)).
- An authorization permitting the building of a work in navigable waters (*Navigable Waters Protection Act*, s. 5(1)).[3]

2. DFO Involvement in the Provincial Environmental Assessment and Approval Processes

8. In my experience, DFO's Maritimes Regional Office is also frequently requested to provide advice to provincial regulators in provincial EA or approval processes on issues relating to fish and fish habitat. DFO provides such advice in order to avoid unauthorized HADD or the killing of fish. It is therefore both normal and necessary for provinces to seek DFO input on fisheries related issues, regardless of whether a project proposal presents an obvious DFO related trigger under the *CEAA*. In fact, such outreach is so common that DFO has a "Referrals Clerk" to manage requests for DFO review coming from other government departments, including NSDEL.

9. For example, when I was with NSDEL, and was the NSDEL EA Officer on the Troy Quarry Expansion Project (which took place between 2001-2003), I provided the

---

[2] *Canadian Environmental Assessment Act*, S.C. 1992, c. 37 (the "*CEAA*"), s. 5(1)(d), **Exhibit R-1**.

[3] At the time the proponents submitted their application to construct a marine terminal at Whites Point, DFO was responsible for issuing authorizations under the *Navigable Waters Protection Act*. This responsibility has since been transferred to Transport Canada.

project proposal to a number of provincial and federal departments, including DFO, for their review and input.[4] As the Troy Quarry Expansion proposal involved blasting near fish habitat DFO requested detailed information on the proponent's blasting plan to assess whether a s. 32 *Fisheries Act* authorization was required for the destruction of fish. This information included a description of the fish species and habitats that were likely to be affected by the blasting, an assessment of the potential impacts arising from the use of explosives, detailed engineering specifications and proposed mitigation measures.[5]

10. When the Troy project was ultimately approved (it was first rejected by NSDEL because it was found to be likely to cause unacceptable environmental effects[6]), some of DFO's initial requirements were incorporated into the approval.[7] DFO had similar involvement, at Nova Scotia's request, in the assessment of the Elmsdale Quarry Expansion[8] (where DFO again imposed requirements on the proponent's blasting activities and requested information on its blasting plan[9]), the Glenholme Gravel Pit Expansion[10] and the Nictaux Pit Development Project.[11]

---

[4] Memorandum from Mark McLean to various provincial and federal departments re: draft environmental assessment for Troy Quarry Extension, January 5, 2001, **Exhibit R-106**, attaching draft environmental assessment document.

[5] Letter from Guy Robichaud to Cheryl Benjamin, undated, **Exhibit R-114**. All of this information was to be provided in accordance with DFO's *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters*, which I discuss in greater detail below.

[6] Letter from Minister David Morse to Donald J. Campbell, December 21, 2001, **Exhibit R-107**.

[7] Environmental Assessment Approval for Troy Quarry Expansion, March 7, 2003, clause 3.4, **Exhibit R-108**.

[8] Environmental Assessment Approval for Elmsdale Quarry Expansion, July 24, 2007, clauses 2.1(e) and 2.3, **Exhibit R-109**.

[9] Letter from Joe Crocker to Vanessa Margueratt, April 22, 2007, **Exhibit R-110**.

[10] Environmental Assessment Approval for Glenholme Gravel Pit Expansion, August 3, 2007, clause 2.2, **Exhibit R-111**.

[11] Environmental Assessment Approval for Nictaux Pit Development Project, October 28, 2005, clause 5.1, **Exhibit R-112**.

C. THE DFO MARITIMES REGIONAL OFFICE'S INVOLVEMENT IN THE ENVIRONMENTAL ASSESSMENT OF THE WHITES POINT PROJECT

1. Nova Stone's Application for a 3.9 ha Quarry at Whites Point, Nova Scotia

11. On April 23, 2002, Nova Stone Exporters Inc. ("Nova Stone"), applied to NSDEL for an industrial approval to construct and operate a quarry on a 3.9 hectare ("ha") parcel of land adjacent to the Bay of Fundy at Whites Point, Nova Scotia.[12]

12. At the time, officials at both DFO and NSDEL understood that the 3.9 ha quarry was the first step in a much larger quarrying and marine terminal project.[13] While no formal application had been made for this larger project, we were aware that Nova Stone had actually obtained a lease over approximately 150 ha of land at Whites Point and intended on quarrying and shipping aggregate from a marine terminal to be constructed at the site over an extended period of time.[14]

a) NSDEL's Outreach to DFO

13. As Nova Stone's application involved the use of explosives in close proximity to the Bay of Fundy, NSDEL contacted a DFO advisor on marine mammals to request that DFO consider whether the proposal engaged concerns under DFO's jurisdiction.[15] DFO expressed concern regarding the potential impact of blasting on marine mammals, such as the North Atlantic Right Whale. In light of this concern, DFO requested that two clauses be added to the industrial approval that would be granted to Nova Stone.[16] NSDEL

---

[12] Application for Approval, April 23, 2002, **Exhibit R-78**. This was Nova Stone's second application to construct and operate a 3.9 ha quarry at Whites Point. Nova Stone's first application, filed on February 18, 2002 (**Exhibit R-75**) was rejected after I determined that the proposed quarry was over 3.9 ha in size and would thus have required an EA. See email from Mark McLean to Brad Langille and Bob Petrie, April 11, 2002, **Exhibit R-76,** wherein I advised that if all associate elements of the project were taken into account, the quarry's footprint would exceed 4 ha and require an EA.

[13] Lease Agreement between Nova Stone Exporters and the Linebergers and Johnsons, April 3, 2002, **Exhibit R-113**.

[14] *Ibid.*, **Exhibit R-113**.

[15] Letter from Brad Langille to Jerry Conway, April 9, 2002, **Exhibit R-83**. This correspondence predates Nova Stone's April 23, 2002 application to NSDEL as it was made in the context of Nova Stone's first application to construct and operate a 3.9 ha quarry at Whites Point.

[16] Email from Brian Jollymore to Bob Petrie April 26, 2002, **Exhibit R-86**.

agreed, and inserted these two clauses into the conditional industrial approval that it granted to Nova Stone.[17]

14. One of the clauses required Nova Stone to complete a report in advance of any blasting activity, verifying, to the satisfaction of DFO, that the intended charge size would not have an impact on marine mammals in the area.[18]

15. The other clause required Nova Stone to blast "in accordance with DFO's *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters -1998*" (the "*Blasting Guidelines*").[19] DFO prepared the *Blasting Guidelines* to assist proponents and regulators in preventing potentially harmful effects of blasting by "provid[ing] information to proponents who are proposing works or undertakings that involve the use of confined or unconfined explosives in our near Canadian fisheries waters, and to which the *Fisheries Act*, Sections 32 and 35 in particular, may apply."[20]

16. These potentially harmful effects include, in certain conditions: death or auditory damage in marine mammals; damage to the swimbladder (the gas-filled organ that permits most pelagic fish to maintain neutral buoyancy), kidney, liver, spleen, and sinus venous in finfish; the death of fish eggs and larvae; changes in the behaviour of fish and marine mammals; and the physical and/or chemical alteration of fish habitat resulting from sedimentation from the blasting or the leaching of chemicals from the explosives into the environment.[21]

17. The appropriate application of DFO's *Blasting Guidelines* requires experienced fisheries staff to review, and potentially amend, the conclusions reached through application of the formulas in the *Blasting Guidelines* in order to take into account the

---

[17] Nova Stone Approval to Construct and Operate a quarry near Little River, Digby County, April 30, 2002, **Exhibit R-87**.

[18] Nova Stone Approval to Construct and Operate a quarry near Little River, Digby County, April 30, 2002, clause 10(i), **Exhibit R-87**.

[19] Nova Stone Approval to Construct and Operate a quarry near Little River, Digby County, April 30, 2002, clause 10(h), **Exhibit R-87**.

[20] *Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters*, D.G. Wright and G.E. Hopky, 1998 ("*Blasting Guidelines*"), Abstract, p. iv, **Exhibit R-115**.

[21] *Blasting Guidelines*, p. 3-4, **Exhibit R-115**.

unique characteristics of the biophysical area in which the blasting is to occur.[22] Thus, the review of blasting near water is necessarily an iterative process which involves the exercise of judgment by officials.[23] For this reason, to avoid being in contravention of the law, it is the proponent's responsibility to provide information adequate to allow DFO officials to assess the potential impacts of the blasting as well as the effectiveness of the proposed mitigation measures, and to make the judgments required of them.[24]

18. On other Nova Scotia projects, such as the Troy Quarry Expansion and the Elmsdale Quarry Expansion (both discussed above), DFO directed the proponent to prepare a blasting plan in accordance with the *Blasting Guidelines*.[25]

b) Nova Stone's Submission of Information to Satisfy the Blasting Conditions

19. The initial information submitted by Nova Stone on September 17, 2002 with its "blasting plan" was inadequate to allow DFO to make the determinations required of it. In fact, despite the fact that it took almost five months from the date of issuance of the industrial approval for the 3.9 ha quarry for Nova Stone to submit the information, all that it provided was a one page document.[26] DFO advised NSDEL that there was insufficient detail provided for it to make an assessment of the plan's potential impact on threatened or endangered marine mammals and requested additional information from Nova Stone.[27]

20. NSDEL did so, but in its response on October 15, 2002, Nova Stone provided only an additional one page document regarding its blast design.[28] Again the information provided was inadequate, particularly in light of the fact that it failed to demonstrate that

---

[22] *Blasting Guidelines*, pp. 4-5, **Exhibit R-115.**

[23] *Blasting Guidelines*, pp. 10-11, **Exhibit R-115.**

[24] *Blasting Guidelines*, p. 10, **Exhibit R-115.**

[25] See **Exhibit R-110** and **Exhibit R-114.**

[26] Letter from Paul Buxton to Bob Petrie, September 17, 2002, **Exhibit R-116.**

[27] Letter from Jim Ross to Bob Petrie, September 30, 2002, **Exhibit R-117.**

[28] Letter from Paul Buxton to Bob Petrie, October 8, 2002, **Exhibit R-118,** received by NSDEL October 15, 2002.

the blasting would not have an adverse effect on marine mammals. Again, DFO requested further information, this time specifically setting out the type of information that was required.[29]

21. Nova Stone did not provide a detailed blasting plan until November 20, 2002.[30] This plan was circulated within DFO. DFO scientists raised questions and concerns about the effects the proposed blasting activity, including: the effects of the use of ammonium nitrate-fuel oil near water (which was contrary to the *Blasting Guidelines*); the possibility of simultaneous blasts causing "beaming" (blast waves from two or more shot holes combining to have greater concussive effect in excess of that permitted under the *Blasting Guidelines*); potential harm caused by "fly-rock"; the impact of blasting on a nearby seal colony; and potential sub-lethal effects on fish.[31] DFO scientists also raised concerns about potential harm to marine mammals, including from noise. In particular, there was concern about the potential impact of the blasting on the North Atlantic Right Whale, which was often present in the summer months within a few miles of the proposed blasting.[32]

22. DFO advised Nova Stone (through NSDEL) of its concerns and information requirements on December 11, 2002.[33] The proponents responded on January 28, 2003;[34] yet, questions and concerns regarding Nova Stone's proposal remained.[35]

---

[29] Email from Jim Ross to Bob Petrie, October 30, 2002, **Exhibit R-119**.

[30] Letter from Paul Buxton to Bob Petrie, November 20, 2002, **Exhibit R-80,** attaching "Whites Point Quarry Blasting Plan" dated November 18, 2002.

[31] Email from Norman Cochrane to Jim Ross, November 27, 2002, **Exhibit R-120,** attaching comments of Norman Cochrane on Whites Point Quarry Blasting Plan.

[32] Email from Robert Stephenson to Jim Ross, December 12, 2002, **Exhibit R-121**.

[33] Letter from Jim Ross to Bob Petrie, December 11, 2002, **Exhibit R-122,** attaching DFO concerns on Whites Point Quarry Blasting Plan, December 11, 2002.

[34] Letter from Paul Buxton to Bob Petrie, January 28, 2003, **Exhibit R-123**.

[35] Email from Norman Cochrane to Phil Zamora, February 17, 2003, **Exhibit R-125**.

2. The Proposal for a 152 ha Quarry and Marine Terminal at Whites Point, Nova Scotia

23. While Nova Stone attempted to push forward with quarrying on the 3.9 ha site, a partnership between Nova Stone and Bilcon of Nova Scotia, known as Global Quarry Products ("GQP"), began to take steps to proceed with the development of a 152 ha quarry and a marine terminal.

a) The Proponents' Initial Steps Concerning the Whites Point Quarry and Marine Terminal

24. As mentioned above, the fact that this project would be a large quarry and marine terminal was no surprise to DFO. In fact, on July 25, 2002, several months after receiving the industrial approval for the 3.9ha quarry but before Nova Stone had submitted a blasting plan, Mr. Paul Buxton and other GQP representatives, met with DFO officials both from HMD and the Navigable Waters Protection program,[36] to gain an understanding of the regulatory process that would apply to a larger project proposal.

25. I understand that at that meeting, one of the GQP representatives made it clear that the proponents were only interested in developing a large quarry and marine terminal together, and noted that "quite frankly, if they cannot put in a wharf structure they are not interested in the quarry."[37] It also appears they recognized the proposal would engage provincial and federal jurisdiction and therefore inquired into how the federal and provincial processes could be coordinated.[38] DFO officials explained the importance of public consultation to the proponents. They also explained that the scope of the project for the purpose of an EA would likely be both components, and that there would be an

[36] Attendance list of meeting between DFO and representatives of the Claimants, July 25, 2002, **Exhibit R-126**.

[37] Thomas Wheaton's notes of meeting between DFO and representatives of the Claimants, July 25, 2002, **Exhibit R-127**.

[38] Thomas Wheaton's notes of meeting between DFO and representatives of the Claimants, July 25, 2002, **Exhibit R-127** ("Comment on whether or not the Fed and Prov EA can be done as a joint effort. Brian Jollymore says yes – we try to do it whenever possible.").

effort to coordinate the process with provincial officials.[39] I am not aware of any concerns raised by Mr. Buxton or any other GQP representative about anything that DFO had explained.

26. After this July meeting, in or around September 2002, the proponents submitted a very rough project description to NSDEL (who in turn forwarded it to DFO and the Agency), which described the project as consisting of a quarry and a marine terminal for ship loading.[40] Further, the proposed ship that would be using the marine terminal according to that rough project description was so large that it appeared the marine terminal would likely require a comprehensive study under the *CEAA*.[41]

27. Officials from DFO, other federal departments and the province of Nova Scotia met on December 3, 2002 to discuss the rough project description and how to coordinate the EA processes.[42] My DFO colleague, Reg Sweeney, attended the meeting and noted that there was "general agreement that due to the size, extent, duration, environmental issues, and extensive public concern" the project might best be assessed via a panel review.[43] However, given the incomplete nature of the rough project description and the fact that both levels of government required far more information in order to determine how an EA might be conducted, no firm decisions were made. Instead, NSDEL wrote to Mr. Buxton on December 10, 2002, advising him of the December 3, 2002 meeting and noting that a more detailed project description would be required than the one provided.[44]

---

[39] Thomas Wheaton's notes of meeting between DFO and representatives of the Claimants, July 25, 2002, **Exhibit R-127**. See also email from Jim Ross to Faith Scattalon, July 25, 2002, **Exhibit R-128,** reporting on the meeting. Ms. Scattalon reported directly to Neil Bellefontaine, who was the Regional Director-General (and head DFO executive) in the Maritimes Region.

[40] Whites Point Quarry, Draft Project Description, September 30, 2002, **Exhibit R-129**.

[41] See Whites Point Quarry, Draft Project Description, page 3, September 30, 2002, **Exhibit R-129**. The gross tonnage of ships that would be used to ship the aggregate in the rough project description exceeded the 25,000 DWT threshold under s. 28(c) of the Schedule to the *Comprehensive Study List Regulations* (which requires a comprehensive study assessment for projects entailing a marine terminal capable of servicing a vessel of over 25,000 DWT), **Exhibit R-10**.

[42] This meeting was held in anticipation of GQP submitting a project registration for the larger quarry and marine terminal project.

[43] Email from Reg Sweeney to Jim Ross and Thomas Wheaton, December 4, 2002, **Exhibit R-130**.

[44] Letter from Helen MacPhail to Paul Buxton, December 10, 2002, **Exhibit R-131**.

Federal and provincial officials met with Mr. Buxton on January 6, 2003 to discuss these issues further.[45]

b) The *Navigable Waters Protection Act* Application

28. Immediately after the January meeting with Mr. Buxton, the proponents submitted a formal application for a permit under the *Navigable Waters Protection Act* (the "*NWPA*") entitled "Navigable Waters Protection Application -- Whites Point Quarry Marine Terminal."[46] As had been discussed with the proponents, the request for an *NWPA* permit triggered an EA by DFO.[47] As a result, from this point on, all decisions that we made at DFO had to be considered in light of the fact that we were now involved in an EA of the larger quarry and marine terminal project.

c) The Submission of the Project Description for the Whites Point Quarry and Marine Terminal

29. On February 3, 2003, several weeks after filing the *NWPA* application, the proponents filed a "Draft Project Description" for the "Whites Point Quarry and Marine Terminal" with the Agency. The Agency forwarded the Draft Project Description to DFO and other involved provincial and federal departments on February 5, 2003, requesting they review it to determine whether they would need to be involved in a potential EA as an RA.[48]

---

[45] Notes of Lorilee Langille of meeting between Paul Buxton and various government departments, January 6, 2003, **Exhibit R-132**.

[46] Navigable Waters Protection Application – Whites Point Quarry Marine Terminal", December 1, 2002, received by Canadian Coast Guard January 8, 2003, **Exhibit R-133**. This application contained an NWP application form describing the project as a "Marine Terminal," a written consent of the landowners for Mr. Buxton "to make application for a marine terminal," and maps and plans depicting the "proposed marine terminal". I note that this was actually the second NWP application that had been made for a marine terminal at the proposed Whites Point Quarry site. Almost one year earlier, on February 7, 2002, Nova Stone had filed a similar NWP application -- *see* Facsimile from Mark Lowe to Jon Prentiss, February 7, 2002, attaching NWP application and related maps and diagrams, **Exhibit R-134**. This application was rejected as it was not accompanied by the appropriate engineering plans. See note to file prepared by Oz Smith, Navigable Waters Protection Officer, March 20, 2002, **Exhibit R-135**.

[47] Memo from Melinda Donovan of NWP to Paul Boudreau of DFO Habitat Management Division, February 17, 2003, **Exhibit R-136**.

[48] Facsimile from Derek McDonald to Jim Ross and other provincial and federal agencies, attaching Draft Project Description for Whites Point Quarry & Marine Terminal, February 5, 2003, **Exhibit R-137**.

30. DFO reviewed that draft[49] and concluded that, like many of the documents that had been submitted by the proponents so far, it contained insufficient information for DFO to make a decision as to whether, in addition to the *NWPA* trigger for the marine terminal, it had any *Fisheries Act* triggers. DFO set out the further details and information it required from the proponents on February 14, 2003 (in particular regarding the potential impact of the planned activities on the marine environment).[50] DFO's requests, and those of other Federal departments and agencies, were sent to the proponents on February 17, 2003.[51]

31. In response to these further questions, the proponents submitted a revised Project Description for the Whites Point Quarry and Marine Terminal on March 24, 2003.[52]

3. DFO Determinations Regarding the EA Process

32. The submission of the final Project Description led to an interagency meeting on March 31, 2003, held at the request of NSDEL,[53] to discuss, among other things, the harmonization of the EA process. A harmonized approach had been used in a recent federal-provincial EA in Nova Scotia[54] and such an approach was therefore viewed as reasonable here. Harmonization would serve to eliminate the duplication of effort that would have otherwise resulted from the running of two separate EA regimes, and facilitate the coordination of information requirements and timelines under the regimes.

33. I participated in the March 31, 2003 meeting and, coming out of the meeting, it was clear that DFO had a number of decisions before it. In particular, DFO had to confirm whether it had regulatory triggers, in addition to the *NWPA* permit, for the quarry and marine terminal. It also had to determine the scope of the project that would be

---

[49]Facsimile from Phil Zamora to Thomas Wheaton, attaching Draft Project Description, February 10, 2003, **Exhibit R-138**.

[50] Letter from Thomas Wheaton to Derek MacDonald, February 14, 2003, **Exhibit R-139**.

[51] Letter from Derek MacDonald to Paul Buxton, February 17, 2003, **Exhibit R-140**.

[52] Project Description, Whites Point Quarry and Marine Terminal, Digby County, Nova Scotia, March 2003, **Exhibit R-141**.

[53] Email from Chris Daly to Jim Ross and various other officials, March 20, 2003, **Exhibit R-142**.

[54] Memorandum of Understanding on Environmental Assessment process for the Deep Panuke Project, December 2001, **Exhibit R-143**.

assessed and what its recommendation would be regarding the most appropriate type of assessment. As I mentioned above, we knew that a comprehensive study was required because of the size of the marine terminal that had been proposed. But my notes of the meeting reflect that we also discussed how "public review/concerns can bump CSR to panel" and that DFO would be "challenged on decision on comp study."[55] A "Highlights and Action Items" summary prepared after the meeting also acknowledged the possibility that the project could be referred to a panel review, indicating that "Comprehensive Study is the most likely federal EA track" but that "Public reaction to Scope and MOU may influence EA track decision."[56]

34. Over the course of the next three months, staff in the DFO Maritimes Regional Office worked to make the necessary determinations, in consultation with DFO staff in our Ottawa headquarters where required.

a) Determination Regarding EA Triggers and DFO as Responsible Authority

35. On April 7, 2003, one of DFO's habitat officers concluded that, while the information contained in the Project Description had not completely addressed all of DFO's prior requests for information, it was adequate to allow for the conclusion that the construction of the marine terminal would result in the loss of fish habitat. In light of this, the construction of the marine terminal would require a HADD authorization under s. 35(2) of the *Fisheries Act*, an EA trigger under the *CEAA* in addition to the application for the *NWPA* permit. He also noted that blasting on the quarry could require a s. 32

[55] Notes of Mark McLean, March 31, 2003, **Exhibit R-144.**

[56] Highlights and Action Items Whites Point Inter-Agency EA Meeting, March 31, 2003, **Exhibit R-145.** Given the public concern that existed over the proposal and the very real possibility that it could be referred for assessment by a review panel, I note that Mr. Zamora took additional steps to confirm for himself and others that "there is provision for the project to be bumped up to Panel Review at any time, if warrented (*sic*), we are not 'locked in.'" Email from Phil Zamora to Charlene Mathieu and Joy Dube, April 3, 2003, **Exhibit R-146.**

authorization. These facts were sufficient to conclude DFO would be an RA for the EA process.[57]

b) Determination Regarding Scope of Project

36. On April 14, 2003 DFO notified the proponents that the proposed 152 ha quarry and marine terminal had triggered an EA. DFO noted that, reflecting the project description submitted by the proponents, "[t]he 'scope of the project' for the purpose of this EA will include the construction, installation, operation maintenance, modification, decommissioning and abandonment of the quarry and marine terminal."[58]

37. At this point, DFO had not determined whether blasting on the quarry would require any authorizations under the *Fisheries Act*. However, at this early stage, given the proximity of blasting to the Bay, it was prudent to leave this possibility open.

38. Moreover, a determination as to whether the quarrying activity would require *Fisheries Act* authorizations was really not necessary in any event because of the way the proponents had made clear in all of their communications with DFO that the quarry would not be built without the marine terminal, and vice versa. In light of this interdependence, under s.15 of the *CEAA*, the scope of the project could include both the quarry and the marine terminal regardless of whether there were *Fisheries Act* triggers for each.

c) Determinations Regarding Proposed Blasting on the Quarry

39. DFO's examination of the potential environmental effects of the proposed quarrying activity had, of course, already commenced with the examination of the Nova Stone blasting plan for the 3.9 ha quarry (which I have described above). DFO scientists continued their review of this plan over the course of January to May of 2003. In light of the fact that the 3.9 ha quarry upon which Nova Stone sought to blast was subsumed

---

[57] Letter from Thomas Wheaton to Phil Zamora, April 7, 2003, **Exhibit R-147**. Bilcon never took issue with the fact that an EA had been triggered under *CEAA* or that DFO was the RA for the EA. For example, on May 14, 2003, one month after being notified of the EA, Mr. Buxton filed an official application for a HADD authorization with DFO. See letter from Paul Buxton to Phil Zamora, May 14, 2003, **Exhibit R-148**.

[58] Letter from Phil Zamora to Paul Buxton, April 14, 2003, **Exhibit R-54**.

within the larger 152 ha quarry, DFO's review of the blasting on the former, was also, in essence, a review of the blasting on the latter.

40. In May 2003, DFO's diadromous fish[59] expert, responding to a request from the officials considering the proposed blasting at Whites Point[60] concluded that "Atlantic salmon of iBoF could be found in close proximity to the shore line of WhiteS Point from May to October."[61] Further, the work of the scientists examining the concussive effects of blasting had concluded that those effects would be felt beyond where the salmon passed.[62]

41. The effects of blasting on swim-bladdered fish, such as salmon, were well understood by DFO. On May 29, 2003 DFO advised Nova Stone that its blasting plan would require a s. 32 *Fisheries Act* authorization for the destruction of fish by means other than fishing. DFO estimated that a setback of 500 meters would be required to protect endangered iBoF salmon during the May to October period and outlined its concerns relating to the potentially harmful effects of blasting on endangered marine mammals.[63]

42. The letter further explained that the 3.9 ha quarry was within the larger area of the proposed Whites Point Quarry and Marine Terminal project, which was undergoing an EA under the *CEAA*. As a result, s. 5(1)(d)[64] of the *CEAA* prevented DFO from issuing a s. 32 authorization for the 3.9 ha quarry if the blasting was in furtherance of the larger project, until the EA of this larger project was complete.[65]

43. The difficulty for DFO was that the proponents had been far from clear on the purposes of the blasting on the 3.9 ha area. For example, in their project description, the

---

[59] Diadromous fish are those that migrate between fresh and salt water and include iBoF salmon.

[60] Email from Larry Marshall to Peter Amiro and Rod Bradford, May 23, 2003, **Exhibit R-149.**

[61] Email from Peter Amiro to Phil Zamora, May 27, 2003, **Exhibit R-150.**

[62] Email from Norm Cochrane to Jim Ross, November 27, 2002, **Exhibit, R-120.** Email from Norm Cochrane to Phil Zamora, February 17, 2003, **Exhibit R-125.**

[63] Letter from Phil Zamora to Paul Buxton, May 29, 2003, **Exhibit R-55.**

[64] The May 29, 2003 letter mistakenly references s. 5(2)(d) instead of s. 5(1)(d) of the *CEAA*.

[65] Letter from Phil Zamora to Paul Buxton, May 29, 2003, **Exhibit R-55.**

intimation seemed to be that the blasting would be test blasts used to gather information in furtherance of the EA on the larger quarry. While I am not an engineer, my understanding of the scale of the blasting plan submitted by Nova Stone was that it could not reasonably be described as a test blast. Further, on April 20, 2003 Mr. Buxton stated in a letter that the "intentions for the 3.9 Ha quarry are to open it in accordance with the Approval and crush rock." He added that "[t]his rock will be used initially for the construction of the various environmental controls as set out in the application for the 3.9 Ha quarry and to construct a new access road to the 3.9 Ha quarry."[66] Effectively, Mr. Buxton was telling us that the 3.9 ha quarry would be used not for test blasting, but rather to commence the very quarrying activity and operations now under review in the EA of the larger quarry and marine terminal.

44. Still, DFO did not "close the door" on its consideration of a blasting plan, suggesting that Nova Stone "may wish to redesign the blasting plan to mitigate the potential destruction of endangered fish and some other potential harmful effects to endangered marine mammals that have been identified by DFO Scientists during our review" and that the "revised plan should also state clearly, the purpose of the blast and the intended use of the blasted rock."[67] I believe DFO presented this option to make clear that the blasting plan could be redesigned so that it would not require a s. 32 authorization, or that it constituted solely a test blast to generate data for use in the pending EA. Nova Stone did not take steps to redesign the blasting plan as suggested in the May 29, 2003 letter. Further, neither Nova Stone, nor the proponent during the EA process, ever submitted a blasting plan describing a test blast or requesting an authorization under the *Fisheries Act* with respect to any of the impacts that a test blast might have had on fish or fish habitat.

d) Determination Regarding Type of Assessment

45. In its April 14, 2003 letter, DFO had informed the proponents that, as the project included a marine terminal designed to handle vessels larger than 25,000 DWT, it was

---

[66] Letter from Paul Buxton to Derek McDonald, April 20, 2003 (provided to DFO on April 22, 2003), **Exhibit R-151**.

[67] Letter from Phil Zamora to Paul Buxton, May 29, 2003, **Exhibit R-55**.

described in the *Comprehensive Study List Regulations* and would, thus, be subject to a comprehensive study. Again, when this letter was sent, DFO was still in the process of trying to understand what the impacts of the proposed project would be and what the public concern over it was. I believe that the only intent of this letter was to make clear to the proponents that, at the very least, a comprehensive study would be required. For this reason, in the same letter, DFO also advised the proponents, that the project could be referred to a review panel, expressly stating: "[A]lthough the type of assessment being used for this project is a CS, CEAA (Section 23) includes the provision that the project could be referred to a mediator or a review panel."[68]

46. The statutory bases for such a referral under the *CEAA* are that the proposed project may cause significant adverse environmental effects or that public concerns over a project warrant referral to a review panel.[69] It is my understanding that DFO staff came to the conclusion that both these criteria were satisfied and that a recommendation that the DFO Minister refer this project for a referral to a review panel was appropriate.

47. With respect to the first, the concerns of the scientists that the blasting had the capability to kill fish were heightened because of the sensitive coastal and marine environment adjacent to the proposed blasting sites. Some of the fish that could have been affected included the endangered iBoF salmon. There was also a concern about marine mammals, such as the endangered North Atlantic Right Whale. Moreover, the *Species at Risk Act* was to be tabled in Canada's Parliament on June 1, 2003 and would influence the approach to assessment where there were impacts on endangered species.[70] In this context, DFO considered that any adverse impact on an endangered species would certainly be a significant adverse environmental effect.

48. With respect to the second factor, my understanding is that DFO staff in the area had also been inundated with concerns from the public about the project, and that Regional staff had been consistently facing a steady stream of letters to the Minister.

---

[68] Letter from Phil Zamora to Paul Buxton, April 14, 2003, **Exhibit R-54**.

[69] *CEAA*, ss. 21, 23, 25 and 28, **Exhibit R-1**.

[70] Email from Phil Zamora to Jim Ross, reporting on meeting with Jerry Conway, April 2, 2003, **Exhibit R-152**.

49. With both the existence of likely significant adverse environmental effects and significant public concerns, DFO officials recognized that it would be appropriate for them to recommend to the Minister of DFO that he refer to project to the Minister of the Environment for referral to a review panel. Minister Thibault made such a referral to the Minister of the Environment on June 26, 2003 and, given NSDEL's interest in conducting a harmonized EA, it was ultimately determined that the Whites Point Quarry and Marine Terminal would be assessed by way of joint review panel.

D. THE DFO MARTIMES REGIONAL OFFICE'S INVOLVEMENT IN THE JOINT REVIEW PANEL PROCESS

50. Once the Whites Point project was referred to a joint review panel, the Agency assumed responsibility for the administration of the EA process. I understand that the affidavit of Stephen Chapman provides a detailed overview of the Agency's involvement in this regard. DFO's involvement was limited to working with the proponents and with the panel to ensure that fisheries and marine habitat issues were appropriately understood.

1. Working Relationship Between DFO and Bilcon

51. Throughout the course of the joint review panel process DFO officials worked with Bilcon to provide input on fisheries related matters that would be in issue before the Joint Review Panel. DFO met with Bilcon numerous times to discuss fish and fish habitat issues that would have to be addressed in its Environmental Impact Statement

("EIS").[71] DFO also discussed with Bilcon the development of a mitigation plan and a fish habitat compensation plan.[72]

52. DFO also reviewed and provided an opinion on the Blasting Plan that Bilcon prepared for its EIS. I coordinated DFO's review of the Blasting Plan and on February 10, 2006 provided Mr. Buxton with DFO's opinion. The opinion provided a detailed assessment of the Blasting Plan and provided Bilcon with DFO's conclusions and advice as to the mitigation measures that could be taken to reduce potentially harmful impacts of blasting on endangered fish and marine mammals.[73]

53. DFO continued to provide advice and assistance to Bilcon after the submission of its EIS. I attach, for example, an exchange between myself and Mr. Buxton in August of 2006 regarding information he requested on interactions between ships and whales in the Bay of Fundy, an area in which Bilcon had been asked to provide additional information to the Joint Review Panel.[74]

2. Review of Bilcon's Environmental Impact Statement and Participation in The Joint Review Panel Hearings

54. In addition to providing advice and assistance to Bilcon, DFO also prepared an opinion on Bilcon's EIS. This opinion, which I coordinated, was submitted to the Joint Review Panel and focussed on all aspects of the DFO mandate engaged by the EIS.

---

[71] These meetings were respectively held on November 2, 2004, December 10, 2004, February 7, 2005, May 5, 2005, July 29, 2005 and October 28, 2005. See email from Phil Zamora to Mark McLean, March 9, 2006, **Exhibit R-153**, attaching the meeting notes of the six meetings held between Bilcon and DFO, and including a communication from a Bilcon representative that the meeting notes accurately "captured" the matters discussed at the meetings.

[72] Notes from the Meeting Between DFO-HMD and Bilcon of Nova Scotia February 7, 2005, **Exhibit R-153**. See also email from Phil Zamora to Paul Buxton, December 10, 2004, **Exhibit R-154**, attaching a recommended format for fish habitat compensation plan proposal. See also letter from Phil Zamora to Paul Buxton, November 24, 2005, **Exhibit R-155**, attaching Fish Habitat Compensation Plan Proposal of Bilcon.

[73] Letter from Mark McLean to Paul Buxton, February 10, 2006, **Exhibit R-156**, attaching May 2005 Revised Blasting Protocol and Fisheries and Oceans Canada Comments on the Whites Point Quarry and Marine Terminal Blasting Protocol.

[74] Email from Mark McLean to Paul Buxton, August 29, 2006, **Exhibit R-157**.

55. In DFO's April 14, 2003 letter to Mr. Buxton, it had "strongly advised" the proponent to "engage a consultant with extensive experience in conducting environmental assessments under CEAA as early in the process as possible" as "[e]xperience has proven this to be a more efficient and timely approach with projects of this size."[75] However, to my knowledge, the proponents chose not to do so.

56. There were several significant deficiencies in Bilcon's EIS.[76] In the opinion that DFO prepared, we noted these deficiencies or inaccuracies including areas in which the EIS had not demonstrated full consideration of potential environmental impacts or the implementation of mitigation measures, as well as outstanding questions that Bilcon would need to address. I filed DFO's opinion on the EIS with the Secretariat of the Whites Point Joint Review Panel on August 3, 2006.[77]

57. DFO was also requested by the Joint Review Panel to provide an oral presentation at the hearing on issues relating to its mandate and to answer questions from the Panel and from hearing participants. I worked with DFO officials from various branches and divisions to prepare a presentation which we submitted on June 11, 2007.[78] The presentation highlighted DFO's mandate, summarized our involvement in the review of the proposed project and focussed on the areas of marine mammals and blasting, marine mammals and shipping, fish and blasting, lobster and blasting, invasive species and fish habitat.

58. For each of the issues covered in the presentation, DFO suggested mitigation measures that could be implemented if the project were to proceed, but it also made note

---

[75] Letter from Phil Zamora to Paul Buxton, April 14, 2003, **Exhibit R-54**.

[76] DFO Science Expert Opinion on Whites Point Quarry & Marine Terminal Environmental Impact Statement, **Exhibit R-158**, p. 4 ("In general, this section was difficult to read, poorly referenced and contained several inaccuracies."); p. 8 ("The above information indicates a deeply flawed sampling design and field execution."); p. 9 ("Typical analysis of benthic grab samples involves checking for organisms >0.5mm in size, the perpetrators of this farce obviously did not even attempt to look for organisms on that scale as they tossed out sample G8 as "biological insignificant" in the field!").

[77] Email from Mark McLean to Debra Myles, August 3, 2006, **Exhibit R-159**, attaching DFO Comments on the Whites Point Quarry and Marine Terminal Project to the Joint Review Panel August 2006.

[78] Email from Mark McLean to Debra Myles, June 11, 2007, **Exhibit R-160**, attaching DFO Presentation on the Whites Point Quarry and Marine Terminal Project.

of where the effectiveness of mitigation measures was uncertain. For example, on the issue of marine mammals and blasting, DFO noted that mitigation measures such as no blasting in a 500 meter safety zone for all marine mammals and a 2500 meter safety zone for all endangered marine mammals would reduce the potential for harmful impacts of blasting under good visibility conditions. However, DFO noted in its presentation that "the ability to detect marine mammals at these distances in various weather conditions and sea states is uncertain."[79]

59. DFO experts delivered their oral presentation to the Joint Review Panel on June 20, 2007. The Panel posed a number of questions including the potential impact of project activities on the North Atlantic Right Whale and the ability to observe this species at a distance. There was also discussion on the determination of noise propagation in the marine environment from blasting on the quarry. Other areas covered included the lobster and herring fisheries in the area, invasive species, aboriginal fisheries and the issue of scientific rigour. DFO was also tasked with responding to three undertakings which dealt with the impact of residual blasting material on water quality, lobster landings for the immediate area around the quarry and endangered species.

E. THE FEDERAL GOVERNMENT'S RESPONSE TO THE JOINT REVIEW PANEL'S RECOMMENDATIONS

60. The Joint Review Panel issued its recommendations on the Whites Point project on October 23, 2007. As the lead RA under the *CEAA*, DFO undertook a detailed analysis of the report and commenced preparation of the Government of Canada's response to the recommendations. DFO consulted and coordinated with several government departments, including Transport Canada (as jurisdiction over the *NWPA* had, by this time, been transferred to Transport Canada). Officials in DFO's

[79] See DFO Presentation on the Whites Point Quarry and Marine Terminal Project attached to email from Mark McLean to Debra Myles, June 11, 2007, **Exhibit R-160**. Other questions noted in the presentation were how mitigation connected to potential shipping impacts on marine mammals, such as the North Atlantic Right Whale, would be controlled by Bilcon. While the presence of whales along the proposed shipping route could be monitored through communication with research and whale watching vessels operating around the project area, specifics on how Bilcon would maintain communication with research vessels and whale watchers had never been provided (e.g., whether research vessels and whale watchers had agreed to cooperate with Bilcon; accounting for the fact that research vessels and whale watchers did not operate year round whereas the quarry would).

Environmental Assessment and Major Projects Division in Ottawa took the lead in preparing the government's response to the report and they consulted me and others in the Maritimes Regional Office in doing so.[80]

61. On November 20, 2007 the province of Nova Scotia announced its rejection of the Whites Point project. This decision meant that the project could not proceed. Nevertheless, it was still necessary for the federal government to respond to the panel report, both under *CEAA*[81] and because applications for authorizations under the *NWPA* and under the *Fisheries Act* were still technically outstanding.

62. On December 18, 2007 the Government of Canada announced that it had accepted the Joint Review Panel's conclusions on the EA of the Whites Point project.[82] As such, it would not be moving forward with issuance of any of the requested authorizations.

SWORN BEFORE ME in the City)
Of Ottawa, in the Province)
of Ontario, this 1st day)
of December, 2011)

MARK MCLEAN

A Commissioner for taking Affidavits
in _____, for

Cheryl Sandra Fabian-Bernard, a
Commissioner, etc., Province of Ontario,
for the Government of Canada, Department
of Foreign Affairs and International
Trade. Expires September 2, 2012.

[80] The Environmental Assessment and Major Projects Division ("EAMP") of DFO was created in 2004 to manage DFO's role under the *CEAA* for major projects which included panel reviews, comprehensive studies and complex screenings. I was a member of the EAMP Division in DFO's Maritime Regional Office when the government response to the panel recommendations was being prepared.

[81] *CEAA*, s. 37(1.1), **Exhibit R-1**.

[82] Fisheries and Oceans Canada Press Release, December 18, 2007, **Exhibit R-161.**