

APPENDIX G

**CEAA CASE STUDY COMPARISON: TIVERTON HARBOUR
PROPOSAL IN TIVERTON, NOVA SCOTIA (CEAA SCREENING,
2003/04) WITH THE WPQ**

Appendix G

Comparison of the CEEA Processing of Two Proposed Projects in Digby Neck and Islands, Nova Scotia:

Tiverton Harbour Proposal (Tiverton, Nova Scotia) (CEAA Screening, 2003/04)

White Point Quarry and Marine Terminal (Review Panel Report, October 2007)

Summary

The Tiverton Harbour project provides an important contrast to the WPQ project. The marine environment (including the species of fish and whales in the vicinity) were similar in both locations. But the potential for disruption and destruction of fish habitat was greater at Tiverton because of underwater blasting and the deposit of a large volume of rock on the harbour floor. At WPQ no underwater blasting would take place.

The proponent was the Government of Canada. The Tiverton project was approved in a timely fashion after going through only a screening level environmental assessment under CEEA.

Analysis

This was a proposal of the Government of Canada (the federal Department of Fisheries and Oceans) to develop a new harbour facility at Tiverton, Nova Scotia, approximately 10 km from the proposed location of the Whites Point Quarry. (Tiverton can be seen on the map on p. 2 of the WPQ Panel Report, just down the road to the south of the WPQ location.) In fact, Tiverton is directly opposite East Ferry, which is on the western tip of Digby Neck.

The Tiverton Harbour project required blasting of rock at the bottom of the harbour depositing approximately 65,000 tonnes of rock and stone to create a new breakwater. The area of the harbour to be covered was approximately 9,500 square metres and the length of the proposed breakwater was approximately 220 metres. Additional infill of rock was to occur along the shoreline for a length of approximately 120 metres.

In addition to covering these areas of the bottom of the harbour with rock, the project involved the installation of floating docks to allow berthing of up to 20 vessels with these docks being anchored to the breakwater with concrete anchors.

Another phase of the project required dredging of the harbour, installing steel pipe piles and the construction of an adjacent marginal wharf.

The area, being not far from Whites Cove, was populated with marine species of various kinds:

Local marine fish species that support important commercial fisheries include lobster, herring and scallop. Smelt migrate near shore in the late fall, and are present throughout

the winter in near-shore areas..... Shad and Gaspereau (alewife and blueback herring) are believed to migrate very near the coastline from mid-May through June, staging and feeding in the near-shore areas before migrating into rivers to spawn.

...

In the summer mackerel schools may move in short of feed. Other marine species likely to be found near the project site are winter flounder, sculpin, stickleback and mummichog.

Whales, including Minke Whales and the endangered Right Whale are common in the Bay of Fundy near Tiverton and a whale-watching operation is based there. The local lobster-fishing season will run from November 25 – May 31....

Nearby Brier Island is an important staging area for migrating birds and bats. A breeding colony of Turkey Buzzards exists on Long Island (Tiverton is located on Long Island.)

Tiverton attracts numerous tourists and birdwatchers.¹

In a document entitled “Habitat Characterization of Tiverton, Digby County, Nova Scotia, prepared by Public Works and Government Services Canada, Environmental Services”, under the sub-heading “Resource Harvesting” it is stated that:

Commercial fisheries at Tiverton include:

- Lobster which is trapped from the last Monday in November to the end of May
- Ground Fish are fished year round (3 vessels)
- Herring are fished with the season opening on September 1st (1 vessel)
- Sea Urchins are harvested during the winter months (2 vessels)
- Rock Crab are fished over the summer months (1 vessel)²

These are similar species that are fished in the Whites Harbour area.

It can be quickly observed that as this project location is not far from Whites Cove, the marine environment is similar.

What is different is the manner in which this project was treated under the *Canadian Environmental Assessment Act*. Although subject to CEAA, the Tiverton Harbour proposal was subject only to a “screening”, not to either a comprehensive study or to a Panel review. This is clearly a less rigorous EA approach for this government project compared to the Whites Point Quarry project, even though the potentially negative effects of the Tiverton project were similar to and likely greater than that of the Whites Point Quarry project in terms of the marine environment.

And, even though a number of changes to “valued ecosystem components” (“VECs”) were recognized as having the potential to cause significant impacts before mitigation, in

¹ Canada document 6-12, pp. 019171-019173.

² Canada document 243-0012, CP#42117, p. 779717.

the case of Tiverton, these were allowed to proceed premised on mitigation measures being put into effect; whereas in the WPQ project the JRP refused to consider such an approach.

More specifically, it was acknowledged by the proponent (the Small Craft Harbours Branch of the Department of Fisheries and Oceans) that fish / fish habitat could be affected by the following project activities:

- constructing the breakwater
- the installation of floating docks
- dredging the basin
- constructing service/parking areas
- constructing the marginal wharf.

Potential effects identified included:

- Loss of fish habitat
- Release of a deleterious substance
- Suspended solids could affect fish
- The effect on fish of blasting

However, in respect of each of the potential effects, mitigation measures were identified which were judged by government officials to result in the significance of residual effects after mitigation to be “insignificant”.

A table entitled “Potential Changes in the Bio-Physical Environment Caused by the Project” prepared as part of the CEAA screening, summarizes the mitigation measures that would be applied to each of these potentially significant impacts.³

For example, in respect of loss of fish habitat, the following were the identified “mitigation measures”:

The work will result in the harmful alteration, disruption or destruction of fish habitat and the impacts will be authorized pursuant to section 35(2) of the *Fisheries Act*. To offset the reduction in production capacity of the watercourse lost as a consequence of the construction, compensation for the permanently lost habitat at a maximum 3:1 ratio will be required. A compensation plan is to be developed as stated in the Letter of Intent between DFO-Small Craft Harbours and DFO-Habitat Management Division.⁴

With respect to the potentially significant environmental impact of the “release of a deleterious substance” the following mitigation measures were identified and accepted:

All waste material will be disposed of in a provincially-approved manner. Any material lost as a result of wave or storm action is to be immediately recovered by the operator

³ Canada document 6-02, pp. 019117-019123.

⁴ *Ibid.* at p. 019117.

when safe to do so.⁵

With respect to the significant environmental concern that “suspended solids could affect fish” the following mitigation measures were identified:

The Contractor will be required to ensure the following are employed: reduce the ascent speed of the bucket; minimize over water swings; eliminate free-board spillage; and eliminate wash downs of machinery adjacent to marine water.

Visual monitoring of the turbidity will be required in the vicinity of the work to ensure that the turbidity is limited. If excessive change occurs in the turbidity beyond 100 meters (m) of the dredge limits that differ from the existing conditions of the surrounding water bodies (i.e., distinct color difference) as a result of the dredging activities, the work will stop and Mr. Thomas Wheaton, DFO-HMD, will be contacted.... to determine if additional mitigation measures are required (these measures may include changes in production rates, or timing according to tidal cycle).

With respect to the potentially significant concern about underwater blasting, the following mitigation measures were identified:

DFO-HMD must be contacted prior to commencing blasting activities (i.e., Mr. Thomas Wheaton (902) 527-5596). All blasting activities will be conducted in accordance with the blasting plan entitled Archibald Drilling and Blasting (1986) Ltd. submitted to and approved by DFO-HMD on February 3, 2004. If changes to the blasting plan are required, they will be subject to a proper review by PWGSC and DFO-HMD.

Other requirements include: scaring fish and mammals away from the area; and shock wave padding (bubble curtain or air curtain) will be installed to minimize the transmission of the blast through the water.⁶

It is clear that in this case government officials, reviewing a government project under CEAA, were satisfied that mitigation measures implemented by terms and conditions could avoid significant environmental effects even though the potentially significant environmental effects are the same as those that would have been incurred in the WPQ case.

Other potential VECs that were evaluated under the screening included the following:

- birds/bird habitat
- water quality
- mammal/species at risk
- navigation
- commercial fisheries
- recreational use of harbours

⁵ *Ibid.* at p. 019117.

⁶ *Ibid.* at p. 019117.

It was determined that, after mitigation, there would be no “significant” adverse environmental effects on any of these VECs.⁷

It is relevant to note that the processing of this application essentially took approximately one year – it was commenced around January 2003 and was completed around January 2004. (A proposed change in phasing of blasting activity required the submission of a revised screening report which required a new notice under CEAA and resulted in a new project description being published, but in any event, resulted in final CEAA screening clearance by around June 2004).⁸

It is also important that in this case DFO scientists did not recommend against blasting in this area. When asked to evaluate the issue of in-water blasting in this area, known to be used by marine mammals, the DFO scientists wrote:

Habitat Request

Based on the project plans and the occurrence of marine mammals in the Bay of Fundy, are you aware of any marine mammals that may be significantly adversely affected in or near Petit Passage by the blasting activities proposed in this area from June 1st to June 30th?

Science Response

DFO data on marine mammal sightings near Petit Passage in June was reviewed.... Cetaceans that are commonly seen in this area in June include Harbour porpoise, Minke whale and Fin whale. Humpbacks usually arrive in the area mid-June. Dolphins are seen on occasion.

Right whales usually arrive in the Bay of Fundy in July or even August. Some years Right whales have been sighted in June, although this is not common. Most sightings of Right whales occur in the area of Grand Manan Basin and not in the Petit Passage area.

Although the effects of blasting on cetaceans have not been reviewed here, harmful effects are considered likely to occur within some radius of exposure to an explosive source. **A risk-management approach should be taken and efforts should be made to blast only when no whales are in the passage.**⁹

Finally, it is important to note that it was determined that the “harmful alteration, disruption or destruction of fish habitat” (“HADD”) could be overcome through the implementation of a fish habitat compensation plan as set out in the “Letter of Intent/Statement of Intent”.¹⁰ The “Terms and Conditions” of this habitat mitigation plan were very general, as follows:

1. SCH (Small Craft Harbours) agrees to develop to Habitat Management satisfaction, the Compensation Agreement for the replacement of 20,445 square metres of fish

⁷ *Ibid.*

⁸ Canada document 6-13, CP#07966, pp. 027394-027414.

⁹ Canada document 6-02, p. 019146 (emphasis added).

¹⁰ Canada document 5-02, pp. 019137-019140.

habitat with habitat enhancement to 6,335 square metres (3:1 for 20,445 square metres) of fish habitat no later than March 31, 2004. The Compensation Plan will also contain a Monitoring Plan that is acceptable to Habitat Management.

2. SCH agrees to carry out the compensation during the summer period 2004 and be completed to Habitat Management satisfaction, no later than November 1, 2004.

3. HMD will assist SCH in the development of the Compensation Plan through input of technical expertise and plan review.

4. Any monitoring requirements development, as part of the Compensation Plan, will form part of this agreement.

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