

**LETTER OF INTENT  
DEPARTMENT OF FISHERIES AND OCEANS CANADA (DFO)  
Small Craft Harbour (SCH) Branch**

**STATEMENT OF INTENT**

This letter of 'Intent' is specific to DFO - Habitat Management Branch (HMB) Referral Number and Section 35(2) Authorization Number \_\_\_\_\_

**Purpose:**

03-SCH-015

DFO-HMB has determined that the project as proposed by DFO-SCH will result in the harmful alteration, disruption or destruction of fish habitat (HADD), contrary to Section 35(1) of the *Fisheries Act*, which states:

*"No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat"*

Works or undertakings resulting in a HADD are prohibited unless authorized by the Minister of Fisheries and Oceans pursuant to Section 35(2) of the *Fisheries Act*. In keeping with the Department's "Policy for the Management of Fish Habitat", no such authorizations are issued unless acceptable measures for the habitat loss (defined as *Compensation measures*) are developed and implemented by the proponent. A request to issue an Authorization under Section 35(2) of the *Fisheries Act* triggers the *Canadian Environmental Assessment Act* (CEAA). This means that the DFO-HMB is required to review the impact of the project on the environment as prescribed by CEAA, before an Authorization can be issued and CEAA completed.

In the interest of carrying out projects in the most timely manner as possible, while still developing meaningful 'habitat compensation' to ensure adherence to the "no net loss" policy, DFO-SCH agrees to develop and implement Habitat Compensation as set out in the conditions below to the satisfaction of DFO-HMB. This will allow DFO-HMB to issue a Section 35(2) Fisheries Act Authorization and meet the CEAA requirements.

**Project Description: Harbour Development (Breakwater, Floating Docks, Dredging and Service Area) at Tiverton, Digby County, Nova Scotia**

The proposed harbour development will be a phased construction over five years. Project components are listed below:

- Construction of new breakwater;
- Installation of floating wharves complete with access ramp, dredging of the basin and construction of service/parking area; and
- Installation of pipe piles and construction of marginal wharf connected to the Provincial ferry wharf.

The first phase of the proposed project is the construction of an armourstone breakwater. The breakwater will extend 149 m east and then 69 m southward. The length of the proposed breakwater is approximately 220 meters. The breakwater will be 5 meters wide at the crest and approximately 50 meters wide at the base, depending on water depth.

The breakwater will be constructed of clean rock obtained from an approved quarry, and will consist of a 0.2 - 100 kg corestone surrounded by 2 layers of 200 - 800 kg filterstone, 1.5 meters thick. The north side (seaside and crest) will be protected with 2 layers of 8-10 tonne armourstone and a single layer of 6-8 tonne armourstone will protect the south side. Approximately 40,000 tonnes of armourstone, 25,000 tonnes of filter stone and 93,000 tonnes of core stone will be used in the construction of the breakwater. Minor dredging may be conducted before breakwater construction is complete to allow for adequate berthing depth of future floating docks along the first leg of the breakwater. If dredging in the vicinity of the future floating docks is conducted after breakwater construction is complete, rock will have to be temporarily removed from the breakwater structure to allow for the dredge equipment to properly remove material. This minor dredging in the vicinity of the future floating docks (along the first leg of the

breakwater) will consist of blasting of bedrock bottom. Class A material removed from blasting activities may be used in the construction of the breakwater itself. Class B material dredged from the vicinity of the future floating docks (along the first leg of the breakwater) may be used to begin construction of the parking area by beginning partial infill in the proposed location of the service/parking area (for which construction is not scheduled until the second project phase).

The second phase of the proposed project is the installation of floating docks, dredging of the basin and the construction of the service/parking area. The floating wharves will allow for maximum berthing capacity of 20 vessels. The floating docks complete with access ramp will be anchored to the breakwater with concrete anchors. An excavator will be used in the proposed land-based dredging to attain a depth 2 meters below present Chart Datum. The anticipated dredge volume is approximately 13,000 cubic meters. The proposed area to be dredged is within the new berthing area. Dredging of the new basin may consist of blasting of bedrock bottom to attain desired dredge depth. The dredge material (50% Class A rock, 50% Class B overburden) will be disposed on land to form the proposed service/parking area. The proposed service/parking area will extend along the shoreline for a length of approximately 120 m. This infill (service/parking area) will be constructed of dredged material and rockfill and two layers of 500-1000 kg filterstone at a 1:25 to 1.0 slope. This service/parking area will provide parking space for up to 70 vehicles. Any remaining dredge material that cannot be utilized in the construction of the service/parking area will be disposed on land at a Provincially approved site.

The final phases of the project involve installing steel pipe piles and the construction of a marginal wharf connected to the Provincial Ferry wharf. Approximately ten steel pipe piles will be driven to anchor the remaining floating wharves (berthing capacity of 15 vessels). A marginal wharf will be constructed of steel sheet piling and will serve as additional service area for loading and unloading. The marginal wharf will be finished with a concrete deck.

#### Proposed Timing of Project

The proposed harbour development project will be a phased construction over five years and is broken down into three phases.

Phase I of the proposed project is the construction of an armourstone breakwater. The tentative construction schedule for the armourstone breakwater is a start date of February 2004 and a completion date of September 2004.

Phase II of the proposed project is the installation of seven floating docks, dredging of the basin and construction of the service/parking area to allow for maximum berthing capacity of 20 vessels. This phase of construction will begin during the fall/winter of 2004 and continue into the spring, summer, and fall of 2005, with completion by March 31, 2006.

Phase III of the project involves installing steel pipe piles and the construction of a marginal wharf connected to the Provincial Ferry wharf. This phase of construction will begin April 1, 2006 and continue year-round with completion by March 31, 2008.

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It has been determined that carrying out this project will result in the harmful alteration, disruption or destruction of 11,354 square meters of marine habitat as a result of the proposed harbour improvement project.

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The proposed habitat enhancement ratio is proposed to be 3:1 for the 11,354 square meters of marine habitat that will be partly or completely lost. The specific type and location of habitat enhancement is to be determined by DFO-SCH and once a plan is in place it will be submitted to HMD for review and approval prior to any enhancement being conducted.

DFO-SCH acknowledges that DFO-HMD policy is for replacement or enhancement of permanently lost habitat and is to be in keeping with the compensation hierarchy as outlined in the 'No net loss' policy.

**Terms of Conditions**

1. SCH agrees to develop to Habitat Management's satisfaction, the Compensation Agreement for the replacement of ~~11,354~~ square meters of fish habitat with habitat enhancement to ~~34,062~~ square metres (3:1 for ~~11,354~~ square metres) of fish habitat no later than March 31, 2004. ~~62,754~~ 61335
2. SCH agrees to carry out the Compensation during the summer period 2004 and be completed, to Habitat Management's 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 developed, as part of the Compensation plan will form part of this agreement.

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Mr. Gary Hubbard  
Chief, Southwest Nova Scotia  
Small Craft Harbours Branch  
Fisheries and Oceans Canada

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Date Signed