



# Sahtu Land and Water Board

## Staff Report

<b>Division:</b> Water Program	<b>Report No.</b> 2
<b>Date Prepared:</b> January 15, 2018	<b>File No.</b> S16L8-002
<b>Meeting Date:</b> January 18, 2018	

**Subject:** Type B Water Licence updated Environmental Management Plan and Sediment and Erosion Control Plan submitted by the Department of Fisheries and Oceans Canada

### 1. Purpose/Report Summary

To present to the Board for consideration:

- updated Environmental Management Plan, required by Water Licence S16L8-002,
- Sediment and Erosion Control Plan required by Water Licence S16L8-002; and
- a Board initiated amendment to WL S16L8-002.

### 2. Background

Department of Fisheries and Oceans Canada (DFO) has submitted an updated Environmental Management Plan in accordance with Part B, item 6 of Water Licence S16L8-002, and a Sediment and Erosion Control Plan in accordance with Part G, item 1, for activities related to the repair of the Canadian Coast Guard Wharf in Norman Wells, NT. These Plans are for Board approval.

#### Environmental Management Plan

The Environmental Management Plan (EMP) describes the Project construction activities, the potential impacts to environmental components and the recommended mitigation measures to reduce adverse effects on environmental components. The potential impacts of the Project were assessed for the following environmental components:

- Soils and Terrain,
- Wildlife and Wildlife Habitat,
- Water Resources,
- Vegetation,
- Fish and Fish Habitat,
- Air Quality and Noise, and;
- Accidents and Malfunctions.

The assessment in the updated Environmental Management Plan provided greater clarity in relation to potential environmental impacts and mitigation measures. These changes were added to the Preliminary Environmental Screening Report to improve the report content overall. The overall

scope of the potential impacts did not change; however, the mitigation measures proposed provide clearer direction. The revised PES report is included in this staff report (Attachment 1).

The project was originally anticipated to take place over a summer season. The project has been revised to divide the work into two stages.

Stage 1. Construction phase: Dredging (February – March 2018)

- Mobilization of equipment and materials,
- Thickening the ice by flooding, starting 2 to 3 weeks prior to dredging;
- Dredging 15 m out beyond the existing footprint of the wharf to a depth of approximately 1-2 m,
- Transportation of dredging spoils off site to the town landfill

Stage 2. Wharf Repairs (Summer 2018)

- Mobilization of equipment and materials,
- Staging of equipment and materials,
- Excavation of materials from the dry environment of the existing wharf,
- Removal of the upper 2 m of sheet-piling of the wharf,
- Welding new sheet-piling,
- Concrete pouring within the wharf, and
- Backfilling the wharf.

Stage 1 will require the use of water to flood the ice and create a thick ice pad from which to conduct the dredging. This water use was not anticipated in the Water Licence terms and conditions that was issued and therefore, a Board initiated amendment to add water use is recommended.

**Sediment and Erosion Control Plan (SECP)**

There are two primary construction phases to the CCG wharf project: in-water dredging during February-March 2018 to improve vessel access to the wharf and wharf rehabilitation. The SECP covers only land-based activities, as no sediment and erosion control measures are planned for the in-water dredging. The use of erosion control measures for dredging during winter in a river are not considered practical or feasible.

The wharf rehabilitation work is anticipated to start and finish in the summer of 2018 when the Mackenzie River levels are low and the work will occur in a dry environment above the waterline.

The following ESC measures will be employed during land-based activities to support the dredging operations.

- No material will be stockpiled on site. All dredged material will be placed into trucks and stockpiled at the Town Landfill site.
- No impact to shoreline is expected as the work will occur on top of the ice cover. Where the access reaches land the ground will be frozen so no impact is expected.
- Remove all construction materials from site upon project completion.
- Remove any spoils materials spilled on the ice before leaving site.

The following ESC measures will be employed during land-based activities to support the wharf rehabilitation operations.

- Stockpiled materials will be limited in height to prevent wind related sediment migration,
- Stockpiled materials will be covered with a tarpaulin, or similar material, during rainy or windy conditions to prevent migration of sediment,
- Installation of effective erosion and sediment control measures before starting work to prevent sediment from entering the water body.
- Compact material immediately after placement to prevent silt from entering the river during rainfall.
- If replacement rock reinforcement/armouring is required to stabilize eroding or exposed areas, then ensure that appropriately-sized, clean rock is used; and that rock is installed at a similar slope to maintain a uniform bank/shoreline and natural stream/shoreline alignment.
- Remove all construction materials from site upon project completion.

## 2.1 Process Requirements

**Plans Received:** December 6, 2017

**Plans Forwarded for Review:** December 6, 2017

**Number of Review Agencies:** 30

**Review Period End Date:** January 10, 2018

**Proponent Response End Date:** January 17, 2018

A Miscellaneous Type B Water Licence was required for the following: removal of more than 100 m<sup>3</sup> sediment. For the amendment, the use of 1500 m<sup>3</sup> of water also requires a Water Licence.

## **3. Agency Comments**

The application was circulated to 30 organizations requesting a reply by January 10, 2018. Three written responses were received. The following organizations offered comments on the application (see Review Comment Summary Table – Attachment 2):

- Environment and Climate Change Canada (ECCC) – no comments;
- Fisheries and Oceans Canada (DFO) – an authorization under the Fisheries Act or a permit under the Species at Risk Act is not required. Proponent to follow DFO's guidance tools;
- GNWT-ENR - had several comments and recommendations which the proponent accepted and provided clarification on. This included: sampling protocols for sediment material and excavated gravel; confirmation that the Town will accept the waste material; details of water usage, for instance volumes (1500 m<sup>3</sup>/year) and sources (Mackenzie River), should be added to the issued Water Licence S16L8-002; clarification of the inspector for the project being the GNWT Water Resource Officer; use of drip trays; and notification to residents in surrounding communities that have fish nets along the river that they could be impacted by project activities.

### S16L8-002 Amendment

Board staff note that water use is now anticipated for this Water Licence and therefore a Board initiated amendment is required to add the water use to the Licence. This is supported by

recommendations made by the GNWT-ENR. Board staff have prepared a draft amendment to S16L8-002 for the Board's consideration (Attachment 3).

#### 4. Conclusion and Recommendation

Board staff have reviewed the comments and recommendations and proponent responses and find that the responses provide the required clarification to address all of the recommendations.

Board staff recommend the Board approves:

- the updated Environmental Management Plan,
- the Sediment and Erosion Control Plan,
- the revised Preliminary Environmental Screening Report; and
- the proposed amendment to the WL S16L8-002

Board staff have prepared a draft issuance letter for Board consideration (Attachment 4).

#### 5. Reference Material Attached

- 5.1 Revised Preliminary Environmental Screening Report
- 5.2 Review Comment Table
- 5.3 Draft Amended Water Licence
- 5.4 Draft Issuance Letter

Respectfully submitted,



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