

December 6, 2017

Sabrina Sturman  
Sahtu Land and Water Board  
Box 1,  
Fort Good Hope, NT X0E 0H0

**RE:** S16L8-002 – CCG Wharf Rehabilitation

Dear Ms. Sturman:

AECOM is pleased to submit the attached Management Plans for the activities related to the CCG Wharf rehabilitation at Norman Wells, NT and the referenced Water Licence issued April 19, 2017. Attached are:

1. Environmental Management Plan
2. Sediment and Erosion Control Plan

The Waste Management Plan and Spill Contingency Plan will be submitted by the successful contractor.

As discussed during our phone call last week, AECOM would also like to bring to the attention of the Board the changes to the activities. Initial application for these works cited construction to take place during the June through October period and included the use of a silt curtain for sediment control during dredging. Regarding schedule, circumstances have changed and the activities are planned for the February-March 2018 (dredging) and summer open water (wharf repairs) period as described below. As dredging is currently scheduled to occur during winter, reference to a silt curtain has been removed as it is not considered practical or necessary to use a silt curtain in a river during winter.

The dredging program is currently scheduled to start in February/March of 2018 and will be completed in approximately 2 weeks. The purpose of the dredging program is to remove sediments that have accumulated within 15 m out from the front and downstream edges of the wharf to a depth of 37.0 m elevation (a depth of approximately 1 - 2 m below the existing river grade (**Appendix A**)). Dredging will be completed from ice cover.

Starting about 20 to 30 days prior to dredging, the contractor will remove the snow off the ice and flood a work area 2-3 x the width of the impacted area. Access to shore will be at the downstream edge of the wharf. When there is sufficient ice thickness to support the weight of the construction equipment, the backhoe will walk out along the access up to the upstream-most part of the face of the wharf and work in a downstream direction.

The procedure will involve breaking the ice cover and placing the broken ice blocks along the offshore part of the dredged area. The backhoe will then excavate the riverbed to a target elevation of 37.0 m.

Excavated material will be placed into trucks that will back in behind the backhoe, and taken downstream along the access and stockpiled at the Town's landfill for use as cover.

As an area is completed the backhoe will move downstream to the next area and proceed as described above until the entire area has been dredged. The ice cover will be allowed to form naturally as the backhoe moves on to the next area.

The wharf rehabilitation is scheduled for construction during the summer of 2018 when water levels are low. As this work is to be tendered in 2018, the specifics of the construction activities have yet to be finalized; however it is anticipated that no work will occur in the water. Wharf rehabilitation will include the following:

- Excavation of the top 2.5 m of gravel around the inner edge of the sheet-pile,
- Cutting and removal of the top 2 m of existing damaged sheet-pile,
- Welding of the sheet-pile,
- Repairing tie-backs,
- Backfilling the excavation,
- Casting a concrete collar around the inner edge of the sheet-pile,
- Welding ladder rungs, and
- Placing 20 mm minus gravel on the upper deck of the wharf.

The changes to the activities as described have been discussed with the Town of Norman Wells (Jordan Balaniuk) and the INAC Inspector (Alex Lynch) regarding the deposit of dredged materials at the local landfill site for use as landfill cover material.

Sincerely,  
**AECOM Canada Ltd.**



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Encl.