

## **APPENDIX A**

### *Project Title:*

Hudson Strait Research Cabin Construction

### *Applicants:*

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### *1. Project Activities:*

The purpose of this project is to establish a small research station in Hudson Strait. Marine shipping in Foxe Basin and Hudson Strait is forecasted to increase, and will include the operation of year-round ice breakers. Field work in this area has been constrained by a lack of research and safety infrastructure (e.g. cabins). As a part of the Canadian High Arctic Research Station (CHARS) development, the goal of this project is to establish a remote field research cabin that will increase capacity for ecological monitoring, allowing us to predict how coastal and marine ecosystems in this area are expected to respond to forecasted increasing marine shipping.

Work planned for 2015 is to construct one small plywood research cabin (12'x20') on Mill, Salisbury, or Nottingham Island in late July/early August. The exact location of the research cabin has yet to be determined, but based on the recommendations of the community of Cape Dorset (Feb 2015), the location is likely to be on northern Mill Island, or western Putnam Island (see attached map indicating proposed cabin locations)

### *2. Schedule of Activities:*

July 10-30, 2014      Environment Canada research staff work with Inuit guides from Cape Dorset to conduct boat-based surveys of Mill, Salisbury and Nottingham Islands, to identify a location for the construction of research cabin.

August 1-15, 2014      Crew establishes a temporary camp (2-3 tents) for cooking and sleeping during cabin construction. Transport building materials from Cape Dorset to the selected cabin site by boat or Twin Otter aircraft. Cabin construction completed by August 15<sup>th</sup>, 2015.

### *3. Preliminary Plan:*

Please see attached maps of proposed cabin locations (exact locations to be determined during boat-based surveys of islands in July 2015).

### *4. List of Structures:*

- 2-3 canvas wall tents (July 10 – August 15)
- 12x20' plywood cabin

*5. Equipment used:*

- 2 boats (hired from Cape Dorset)
- Camping stove (Coleman, with fuel)
- Generator (to run power tools used in cabin construction, and charge satellite phones)
- Hand tools (hammer, drills, etc.)
- Hand held marine radios and satellite phones (for safety)

*6. Fuel to be used:*

- 4x 4L jugs of white gas (fuel for Coleman stove)
- 4x 4L jugs of kerosene (for heaters)
- 1x 25L jerry cans of gasoline (for generator to run power tools)
- 6x 25L jerry cans of gasoline (for boats between site and Cape Dorset)

*7. Please see attached spill contingency plan.*

*8. Methods of transportation:*

- Transportation of crew and personal gear to by boats (from Cape Dorset)
- Transportation of cabin building materials and tools by boat or Twin Otter aircraft (from Dorset)
- Transportation on land at cabin site by foot only.

*9. Local Environmental Components:*

Islands in Hudson Strait (Mill, Salisbury and Nottingham) are comprised of areas of low-lying dwarf-shrub tundra and barren areas (bedrock). These areas provide excellent nesting habitat to a broad suite of arctic breeding waterfowl and shorebirds. A large number of eiders (1000-2000 pairs) breed on Fraser Island, which, for this reason, is designated as an Important Bird Area (NU024). Given the distance of this eider colony from the nearest communities (Cape Dorset -120km) eider down collection is infrequent (relative to more nearby islands) and provides little socio-economic benefit to communities. Additionally, protected areas (shallow bays and among island groups) provide important areas for eiders to moult and raise offspring. For example, eiders congregations are observed in protected areas along eastern Nottingham Island, as well as south and west coasts of Mill Island annually in late summer and early fall (July-September). Additionally, seasonal concentrations of walrus are known to occur in northern Hudson Bay and Hudson Strait in summer, including areas around Mill Island.

A decommissioned communication site located on southern Nottingham Island has been identified as a contaminated site by Aboriginal Affairs and Northern Development Canada, and is currently undergoing environmental remediation (2014-2015).

No historical or archeological sites are known. Community members from Cape Dorset have indicated there are tent rings present on the coast of the deep bay on the west side of Putnam Island, where walrus hunters have previously established temporary hunting camps. This

suggests this area provides shelter from prevailing winds and weather, and might be an ideal location for construction of the research cabin. However, we will avoid any disturbance of tent rings to allow for potential future use of this area by local hunters.

*10. Summary of potential environmental, wildlife and resource impacts and mitigation:*

We do not expect to have much impact on the environment. We will be travelling and camping in a small group (4-6 people). Twin Otter aircraft will be landing on a nearby gravel esker or beach to deliver the building materials as near to the cabin site as possible. If no safe landing strip can be identified, the building materials will be delivered by boat. All other transportation on land will be by foot, reducing the impact on the local plants and vegetation communities. The most likely threat is a fuel spill while refueling the generator, camping stove or boats. We have a spill contingency plan in the event that a fuel spill was to occur.

*11. Reclamation costs:*

Not applicable to our project.

*12. Proposed reclamation plan:*

Anticipated use of this cabin for research extends over many years (e.g. decades). However, when it is no longer needed for research, the cabin will be given to the Aiviq HTO of Cape Dorset. All unwanted equipment and debris will be removed.

*13. Number of Inuit to be employed:*

We hope to hire 2-4 Inuit guides to help with island surveys and cabin construction. In addition to the salary we will pay to them and fees for the use of their boats, we will also contribute to the local economy when we purchase food, fuel, and equipment from the local grocery store. We will also be staying at a hotel while in Cape Dorset and in Iqaluit.