

APPENDIX A

Project Title:

Foxe Basin Research Cabin Construction

Applicants:

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1. Project Activities:

The purpose of this project is to establish a small research station in Foxe Basin. 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 Rowley, Koch, Bray, North Spicer, Foley, or Prince Charles Island in July. The exact location of the research cabin has yet to be determined, but will be based on the recommendations of the community of Igloolik (planned community meeting April 2015).

2. Schedule of Activities:

July 1-9, 2015	CHARS and Environment Canada research staff work with Inuit guides from Igloolik to conduct aerial (TWIN OTTER) and ground-based surveys of Rowley, Koch, Bray, North Spicer and/or Prince Charles Islands, to identify a location for the construction of new research cabin.
July 10-30, 2015	Crew establishes a temporary camp (2-3 tents) for cooking and sleeping during cabin construction. Transport building materials from Igloolik to the selected cabin site by Twin Otter aircraft. Cabin construction completed by July 30, 2015.

3. Preliminary Plan:

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

4. List of Structures:

- 2-3 canvas wall tents (July 10 – 30)
- 12x20' plywood cabin

5. Equipment used:

- 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)

7. Please see attached spill contingency plan.

8. Methods of transportation:

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

9. Local Environmental Components:

The islands in northern Foxe Basin are characterized by low-lying sedge, moss, low-shrub, wetlands and tundra, distributed among areas of elevated gravel eskers and beaches. Year-round concentrations of walrus are present in northern Foxe Basin and harvested by local communities by boat, particularly around Rowley, Spicer and Koch Islands. Polar bears are common on Rowley, Bray and Koch Islands during the ice-free season. Low numbers of Caribou have been estimated from recent aerial surveys of south Baffin Island including many of the Islands in Foxe Basin (Government of Nunavut 2012). Prince Charles Island, Air Force Island, and the southern part of Foley Island represent an Important Bird Area (NU011) due to large populations of breeding geese, gulls and shorebirds. North Spicer Island supports a colony of Atlantic Brant, and other seabirds including Sabine's Gulls and Long-tailed Ducks. Hunting and egg collection may occur seasonally on islands nearby Igloolik and/or Hall Beach, however, these activities are uncommon on more distant islands in Foxe Basin being considered for this project (will be confirmed during community meetings in April 2015). The presence and interactions of these species, as well as the response of these environmental components to climate change and anticipated increased shipping is an area of interest for future research in this region.

Several decommissioned DEW line and radio communication sites exist in this region (on Bray and Rowley Islands) and remediation plans are underway to remove waste and contaminated soils from these sites (2008-2017).

Historical or archeological sites have been identified on the west coast of Koch Island, but none are known on Rowley, Bray, North Spicer or Prince Charles Islands.

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. 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, or camping stove. 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 Igloodik HTO. 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, 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 Igloodik and Iqaluit.