

APPENDIX A

Project Title:

Canadian High Arctic Research Station (CHARS) camp on Greiner Lake, Cambridge Bay

Applicants:

Dwayne Beattie, Science Operations Manager, Canadian Polar Commission
360 Albert St., Suite 1710, Ottawa, ON K1R 7X7
Email: dwayne.beattie@polar.gc.ca
Phone: 613-295-0485

Donald S. McLennan, Head - Monitoring Science, Canadian High Arctic Research Station
15 Eddy St., Gatineau, QC K1A 0M4, Canada
Email: donald.mclennan@polar.gc.ca
Phone: 819-934-1156
Fax : 819-997-0552

Johann Wagner, Science Analyst, Canadian Polar Commission
360 Albert St., Suite 1710, Ottawa, ON K1R 7X7
Email: johann.wagner@polar.gc.ca
Phone: 613-295-8424
Fax: 819-997-0552

1. Project Activities:

The Canadian High Arctic Research Station (CHARS) will be conducting a range of field research activities over the summer and early fall of 2015, and a number of visiting research scientists, their graduate students, and northern students will come to Cambridge Bay to conduct this research. In future years CHARS will have constructed accommodation to house researchers, but these triplexes will not be available for summer 2015. To provide temporary accommodation, the CHARS S&T Team would like to set up a field camp near Cambridge Bay close to Greiner Lake (69°08'54.28" N, 104°56'31.70" W; also see attached map). A range of research projects will be carried out including work on tundra ecosystem description and mapping, insect monitoring, freshwater lake surveys, small mammal trapping, and installation of research instruments such as a weather station, and eddy covariance towers. Researchers will come and go over the summer – we expect no more than 10 people in camp at any one time.

2. Schedule of Activities:

July 1, 2015	Camp will be set up
July 4 – September 30	Research will be conducted by scientists staying in camp
October 31, 2015	Camp will be dismantled by this date

3. Preliminary Plan:

The proposed camp is at 69° 08' 54.28" N, 104° 56' 31.70" W, within Cambridge Bay administrative area, ~6 km NE from the hamlet of Cambridge Bay, on the southern shore of Greiner Lake, at the outflow point of Freshwater Creek, and ~300 m from the road that goes from the Hamlet to Mount Pelly. Researchers staying in the camp will work in the Greiner Lake watershed (see attached map of the proposed area). The camp will have road access so can be reached by truck, and field sites will be accessed by float plane, ATV, small boat, and hiking.

4. List of Structures:

- 2 Weatherhaven tents – 1 for cooking and dining, and 1 as a research area.
- 1 canvas wall tent for equipment storage
- 6-10 individual all season tents for sleeping accommodation

5. Equipment used

- Pick-up truck
- ATV's
- Outboard boat
- Propane range
- Refrigerator
- Propane or diesel heaters (for heating Weatherhaven tents)
- Generator (to charge electronic instruments)
- Laptop computers
- Mobile and satellite phones (for safety and communication)
- Handheld GPS receivers

6. Fuel to be use:

- 4 x 20lb propane tanks (for stove and heaters; replacement propane tanks will be acquired from Cambridge Bay throughout the season)
- 1 drum of diesel (for heater)
- Gasoline for generator, and onboard boats. Truck and ATV's will be refueled in Cambridge Bay, therefore fuel for them will not be stored at the campsite.

7. Please see attached spill contingency plan**8. Proposed disposal methods for garbage, sewage, grey water:**

- All waste will be stored in sealed drums and removed from the campsite to the hamlet's landfill.
- Sewage will be collected in plastic bags, which will be stored in drums, and disposed off by the hamlet's landfill.
- Water will be taken from the lake and river for washing and bathing, and drinking water will be brought from the hamlet in carboys.
- Grey water sump will be located at least 100 m from water sources, and buried at the end of season.

9. Methods of transportation:

- Transportation of researchers from Cambridge Bay airport to camp by pick-up truck
- Transportation by float plane, ATV, outboard boat and hiking for researchers from camp to study areas in the Greiner Lake watershed

10. Local Environmental Components:

The proposed campsite is located on the bank of the Freshwater Creek that flows from Greiner Lake into Cambridge Bay, right at the outflow of the river from the lake. The vegetation at the campsite is composed mostly of mesic tundra dominated by sedges, mountain heather and purple saxifrage, with smaller patches of moister tundra dominated by dwarf shrubs (<40 cm tall), sedges and mosses. The riverbanks and the lakeshore have riparian vegetation with water-crowfoot and mosses. The river next to the camp is the migration avenue of arctic char out from the lake and to the ocean in the spring, and from the ocean to Greiner Lake in the fall. The road from Cambridge Bay to Mount Pelly is ~300 m from the campsite, and represents the main access from the Hamlet to the camp through a side road that reaches the campsite. Local fishermen fish arctic char in the area during migration, and there are several fishing cabins of locals in the vicinity of the campsite.

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

The camp will have a minimal impact on the environment. Access to the camp will be made by water, or by the existing road. No natural tundra ecosystems will be disturbed. The most likely threat to the environment is a fuel spill while refuelling the generator, the boat or the stove. We have a spill contingency plan in the event that a fuel spill was to occur.

12. Reclamation costs:

Not applicable to our project

13. Proposed reclamation plan:

Not applicable to our project, as only light temporary camps will be established (no permanent structures).

14. Number of Inuit to be employed:

One (or possibly two shifting) Inuit person(s) will be employed as the camp cook throughout the duration of the camp. We will also contribute to the local economy by the food, fuel and equipment we will purchase from the local grocery and hardware stores in Cambridge Bay. We also plan to utilize local guides to assist some parties with sampling – guides will be arranged through the HTO. We also plan to hire and train as required 4-8 Inuit youth to act as field assistants and guides.