

#### Expected impacts:

- a) Designated wildlife areas/parks: we fly over these areas during spring when everything is snow and ice covered so there will be no impact on the ground from the short time frame that we survey (researching). There are a few proposed fuel caches that might be in wildlife areas or near or in the park. The caches will be small, there are spill kits in Resolute Bay with PCSP so in case of a spill we can contain the snow and transport it out; Drums will be cached during summer and spring by Twin Otter and carefully placed away from water sources so that the chance of a spill is very small. The cache sites have been selected for good and safe access and removal by plane. Some caching can be timed so that no birds are present when the majority of caching occurs (i.e. during fall).
- b) Wildlife protected areas: we will fly over wildlife areas for only short periods of time – our goal is to survey bears on the sea ice where they are distributed mostly; it is expected that a very small number of bears will be on islands (and in some of the few wildlife areas) – the time period that we fly over those is very short (minutes for small islands, to 1-2 hours of larger areas); we only spend a very short time flying over those areas and only once or twice during our research efforts per research season – the impacts are very negligible.
- c) Wildlife: our research will have no impact on habitat because we are not constructing anything and we are spending most of our time over sea ice. When we approach polar bears we use a methodology that has been vetted many times and is a standard for polar bear research. Bears are only sampled with a small biopsy dart and many bears do not react to the sampling; the impact on bears will be short-term; our approach is the least invasive but adequate to obtain the information we need to fulfill our mandate under the land claim, and to provide new information to decision making bodies. Our methods involve approaching bears, sampling, and picking up the dart – there is no immobilization and handling, and the procedures take only 1-2 minutes in obtaining a sample.
- d) Because we use helicopters for this work there could be a perceived noise pollution if people are out on the sea ice. We are working with local hunters to examine where and when hunters are out on the ice so there is no interference of local activities by our research activities. Our local assistants from the communities will also guide us to avoid hunting areas of importance and to mitigate potential negative effects.
- e) Our research activities can provide a positive impact to the 3 communities that are involved in our study; local HTO-selected assistants accompany the crews as observers and field assistants. This provides training opportunities for locals but also employment opportunities for interested local participants.
- f) Fuel storage at caches: there are several caches throughout the Lancaster Sound study area (see attached maps in other documents) that will allow us to conduct the research. Drums will be cached in summer and spring, and will be approached for only short times when re-fueling occurs. All drums will be removed when the project is completed, but most will be picked up and replaced during our 3-year study activity. The locations are known locations for safe caches and experienced crews will deposit the caches. The chances of a spill are very remote, but in order to be prepared we have spill kits in Resolute Bay at PCSP.