



## **Appendix**

### **Socio-Economic Comments**

According to the designated landing locations described in the application documents, it is likely that visits to certain areas will overlap with known archaeological sites and subsequently require an application for an archaeological permit.

Under the *Nunavut Archaeological and Palaeontology Site Regulations (Nunavut Act)* the Government of Nunavut Department of Culture and Heritage is the responsible agency for the management and protection of Nunavut's archaeological heritage. This is achieved through legislation, policy, and procedures including the requirement to obtain authorization, in the form of a permit, from the GN. Since 2005, the GN has required that commercial tourism operators likely to visit or come in contact with archaeological or palaeontological sites obtain a Class 1 Permit\*.

The permit process addresses the following issues:

- The landing of thousands of visitors each year at archaeological and historical sites in Nunavut without the knowledge of the Department of Culture and Heritage or Inuit Heritage Trust.
- Concerns expressed by archaeologists, tourists and local residents about site protection arising from ship borne tourism.
- Incidents of site disturbance.
- Potential cumulative effects of large-scale and unregulated site visitations.
- The need for accountability with respect to site disturbance arising from tourist activities.

The permit process also provides the following benefits:

- Provides a mechanism through which the Government of Nunavut can obtain information concerning current site conditions (monitoring and reporting) and,
- Protects visitor groups from being held responsible for damages to a site that occurred before and after their visit.

### **Recommendation**

As the Proponent has already applied for the required permits, the GN would like to take this opportunity to stress that they respect the requirements of the archaeological permits if/when they are issued and to pay special attention to the concerns noted above during landings and exploration of the indicated areas.

*\*Permit applications must be submitted to the Department of Culture and Heritage by March 31 of each year. Permits are usually issued in late-May early-June. Each permit application is also reviewed by Inuit Heritage Trust and forwarded to nearby communities. Article 33 of the Nunavut Land Claim Agreement, and Article 20 of the Nunavik Land Claim Agreement, provide the framework for decisions concerning approval or denial of permits.*

## Environment and Human Health Comments

The cruise has scheduled shore visits in areas where polar bears may be encountered. Polar bears are protected under the *Species at Risk Act* (SARA) and are listed as a Schedule I species at risk. Potential human-polar bear encounters can result in injury or death to either the polar bear or the human, and all possible efforts to avoid human-polar bear encounters must be made.

The potential introduction of invasive species is a concern due to the number of sites that will be visited in Nunavut. Wares et al. 2011 found that the transport of seeds via footwear to cold-climate regions is already occurring and with increasing tourism in the north, it will become more of a concern in the future.

The Association of Arctic Expedition Cruise Operators (AECO) and the International Association of Antarctica Tour Operators (IAATO) are both organizations with mandates to promote responsible tourism by taking into account environmental and safety concerns. These associations both have guidelines and best practices for preventing the introduction of non-native species. AECO and IAATO recommend examining and cleaning clothes, footwear, and all equipment thoroughly to remove seeds and organic matter. It is important to clean footwear between stops on a cruise expedition and they recommend using disinfectant wash between shore visits and to let the disinfectant dry between landings.

### Recommendations

Brief passengers at the beginning of the cruise on the importance of avoiding the introduction of non-native species and cleaning footwear to reduce this possibility.

To reduce the possibility of transferring species from one cruise stop location to the next, the Proponent is recommended to set up a boot washing station for all passengers and crew to use when leaving and returning to the ship.

### References

Association of Arctic Expedition Cruise Operators (AECO). Biosecurity guidelines for visitors to the Arctic. <http://www.aeco.no/guidelines/biosecurity-guidelines-2/>. Accessed May 28, 2014.

International Association of Antarctica Tour Operators (IAATO). Boots, clothing and equipment decontamination guidelines. <http://iaato.org/decontamination-guidelines>. Accessed May 28, 2014.

Ware, C., Bergstrom, D.M., Müller, E., & Alsos, I.G. 2011. Humans introduce viable seeds to the Arctic on footwear. *Biological Invasions* 14(3):567-577.