11.0 SUMMARY OF ECOLOGICAL SIGNIFICANCE

Caribou Point has been documented as an important ecological area and has been valued for centuries by the Sahtu Dene and Metis, Copper Inuit, and Tlicho. The Sahtu Heritage and Places Joint Working Group has recommended Caribou Point be classified as a Critical Wildlife Area.

Habitats present within the study area are unique in that they represent three different habitat types: boreal forest, boreal transition, and tundra. Each of these habitat types supports a unique assemblage of plants, fish, wildlife, and bird species.

The different habitat types present within the study area are a product of the high subarctic ecoclimate, low precipitation, exposed sedimentary rocks, undulating and hummocky topography, and continuous permafrost. Landscape features at Caribou Point peninsula and surrounding islands are unique to the area. This unique landscape may support uncommon or rare plant species.

Low flow rivers and streams are characteristic of watersheds within the Great Bear Lake basin and dominate the aquatic environment within the study area. These rivers and streams are dependent on spring runoff. The study area lies predominantly within the Dease and North McTavish Arm sub-watersheds, which include two of Great Bear Lakes inflow rivers: the Dease River and Sloan River. The aquatic environment, including hydrological regimes and water quality present in the study area are common in the region. However, the shallow bays, particularly in the North McTavish Arm, and the many rivers, lakes, and wetlands within the study area provide habitat for a number of fish species during spawning, migrating, feeding, and rearing life history events.

12.0 SUMMARY OF RENEWABLE RESOURCE SIGNIFICANCE

Traditional and non-traditional use of renewable resources occurring in the study area is closely tied with the biophysical environment and ecological capacity of an area. Information on the traditional use of renewable resources (characterized by living off the land, local consumptive use of resources, or inherited cultural lifestyles) are limited, however, some important harvest areas have been mapped within the study area. Traditional use of vegetation, fish, and wildlife within the study area, historically, has played an important role in the lives of the Sahtu Dene and Metis, Copper Inuit, and Tlicho ancestors.

Although the study area has been used for traditional purposes for centuries, little documented information exists that describes and maps areas of important use. One exception, however, was the caribou hunt, for which much has been documented. Caribou, an important subsistence species, were used to complete all dietary requirements, and provide materials for clothing, shelter, and tools. The

study area is still considered a significant caribou harvest area, since barren-ground caribou are known to occupy the study area in relatively large concentrations during the fall, and during spring migration. Woodland caribou also occupy the study area throughout the year, however, woodland caribou occur at lower densities than barren-ground caribou. The study area is considered an important fall harvest area, where food and other materials were available in large enough densities to collect sufficient supplies for winter.

Although caribou were the most documented traditional use species within the study area, other wildlife were also harvested for subsistence, tools, and trade, including fish, moose, furbearers, waterfowl, and grouse/ptarmigan. These species are considered an important resource for persons with a traditional lifestyle, however little information exists on the specific use of these species within the study area. Harvest areas for hare, marten, and red fox have been documented in the study area, particularly at the western tip of Caribou Point peninsula.

In addition to traditional wildlife harvests, some log timber and firewood harvest areas have been mapped within the study area. Log and firewood harvests have been documented in the study area, particularly within the coniferous forests along the shoreline of Caribou Point. Sahtu Dene and Metis, Copper Inuit, and Tlicho would have used the study area for log and firewood collection for centuries. Today, log timber and firewood are assumed to be used predominantly surrounding existing cabins and lodges. No other vegetation use areas have been documented within the study area; however, it is assumed plants were harvested for subsistence (particularly berry-producing plants), medicine, and arts and crafts.

Although wind and solar energy was harnessed for daily tasks, such as food preservation, light, and heat, this energy supply is not unique to the study area. In addition, water resources were used for travel and potable water, but available information places little significance on most of the aquatic resources within the study area for these purposes. An exception was the Dease River, which was documented as an important travel route for early European explorers and the Copper Inuit. Aquatic resources are considered common throughout the region.

Non-traditional renewable resource use (such as large-scale commercial and industrial resource exploitation) is limited within the study area to include sport fishing, outfitted hunts, active solar energy use, and industrial water use. Two fishing lodges and two fishing outposts currently operate within the study area. Fishing lodges throughout the NWT, including the study area, provide large monetary gains for local communities. Sport fishers pay adequate sums of money for the opportunity to fish trophy-sized fish that occupy the study area. Sporting tourists also, but to a lesser extent, purchase local souvenirs, fishing gear, and assorted items. The potential for additional fishing lodges to operate within the

study area is expected to be low, however there is a potential for existing fishing lodges to increase the number of guests a year.

In addition to sport fishing, outfitted wildlife hunts occur within the study area, but to a much lesser extent. Outfitted wildlife hunts within the study area focus on barren-ground caribou, muskox, wolf, and wolverine. Although, current barren-ground populations are in decline, there may be a potential for outfitted hunting opportunities for moose, grizzly bear, and waterfowl, depending on species populations.

At present, it is believed existing sport fishing lodges are powered by a hybrid diesel fuel and active solar energy system. There is a potential for active solar energy use throughout the study area to heat and light lodges and camps.

In addition to commercial fish and wildlife harvests and active solar energy use, it is assumed water has been used from the study area to support mineral drilling in the southernmost portion of the study area, near Port Radium, as well as along the eastern study area boundary. However, the amount of water used from the study area is unknown. With the increase in base and precious metal prices, it is expected additional exploration may increase in the study area, and the amount of water required will rise. If industrial developments occur, water from the study area may be used for potable water at camps, and / or for drilling and general operations.

No other renewable resources are currently being exploited by non-traditional means, however, there may be a potential for a small hydro development on Sloan River to supply future power if additional lodges, camps, or industrial operations are developed within the study area. In addition, the opportunity for tourism (outside outfitted hunts and sport fishing) within the study area is considered moderate. The study area boasts unique landscapes, and plant and wildlife communities from the boreal forest, boreal transition, and tundra habitats. Although existing sport-fishing lodges promote the natural beauty of the area for naturalists and nature photographers. However, since site access is restricted and costly, the number of nature tourists is limited. It is assumed the average nature tourist would be less likely to pay for costly tours, unlike trophy sport and wildlife hunters. The potential to increase nature tourism within the study area exists if sport-fishing lodges promote the natural beauty of the study area to a greater extent.

13.0 RECOMMENDATIONS

13.1 ECOLOGICAL ASSESSMENT RECOMMENDATIONS

One objective of the Phase 1 Assessment is to conduct an ecological evaluation of the study area and determine areas of missing or limited ecological knowledge. In each of the sections above (climate, geology, aquatic, vegetation, fish, and wildlife),

the ecological environment has been summarized, and data gaps identified. By understanding the ecological environment and key issues of the PAS process, recommendations are put forward to fill in significant knowledge gaps in the Phase 1 assessment process. These recommendations are then rated based on priority. Rationale for the recommendations and priority ratings are provided in Table 8.

13.2 RENEWABLE RESOURCE RECOMMENDATIONS

In addition to documenting the ecological environment, renewable resources were identified within the study area. Each VEC listed for the study area (*i.e.* climate, geology, aquatics, vegetation, fish, and wildlife), areas of knowledge gaps were highlighted. Based on these data gaps, additional studies are recommended to fill in valuable knowledge of the local resources. This is required to support and manage the renewable resources in the study area. These recommendations are then rated based on priority. A table documenting the data gaps, recommendations, and priority ratings is provided in Table 9.