

2.0 Information about the Gwich'in Settlement Area and its Resources



Campbell Hills

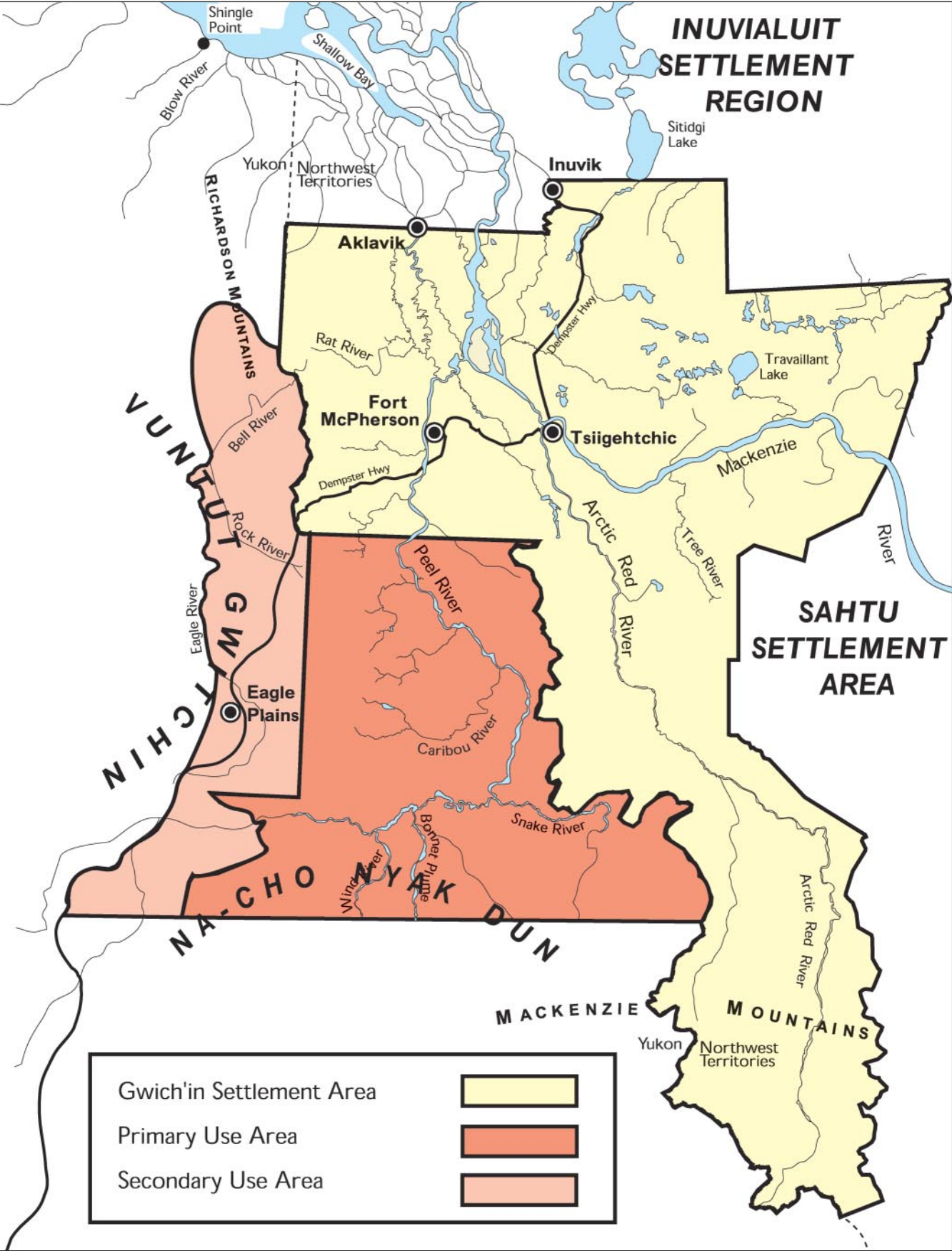
Gwich'in Renewable Resources Board

2.1 Gwich'in Settlement Area

2.1.1 *Boundaries*

The Gwich'in Land Claim was settled in 1992 for the Gwich'in Settlement Region. The Gwich'in Settlement Region is made up of the Gwich'in Settlement Area, the Primary Use Area and the Secondary Use Area (see Figure 2). The Gwich'in Settlement Area is entirely in the Northwest Territories and is approximately 56,935 km².¹ The Planning Board is responsible for land use planning in the Gwich'in Settlement Area.

Figure 2: Gwich'in Settlement Region



Both the Primary and Secondary Use Areas are in the Yukon Territory. The Primary Use Area is 21,988 km² in size and encompasses much of the watershed of the Peel River.² It is an overlap area between the Nacho N'yak Dun of Mayo and the Teetl'it Gwich'in of Fort McPherson. The Secondary Use Area, 11,456 km² in size, is a traditional use area in the Richardson Mountains.³ The three main groups that use the area are the Vuntut Gwitchin of Old Crow, the Teetl'it Gwich'in of Fort McPherson and the Ehdiitat Gwich'in of Aklavik. The responsibility for land use planning in the Primary and Secondary Use Areas falls to the Yukon Land Use Planning Council. The Yukon Transboundary Agreement states that the Yukon Land Use Planning Council will consult with the Planning Board on any land use planning initiatives in the Primary and Secondary Use Areas.⁴

The Gwich'in Settlement Area is bordered by the Inuvialuit Settlement Region to the north, the Sahtu Settlement Area to the southeast and the Yukon Territory to the west. In the Inuvialuit Settlement Region, community conservation plans have been developed in place of Land Use Plans. Gwich'in settlement lands in the Inuvialuit Settlement Region are addressed in the conservation plans as the Planning Board has no jurisdiction in the Inuvialuit Settlement Region. In the Sahtu Settlement Area, the Sahtu Land Use Planning Board is in the beginning stages of developing a Land Use Plan.

2.1.2 People

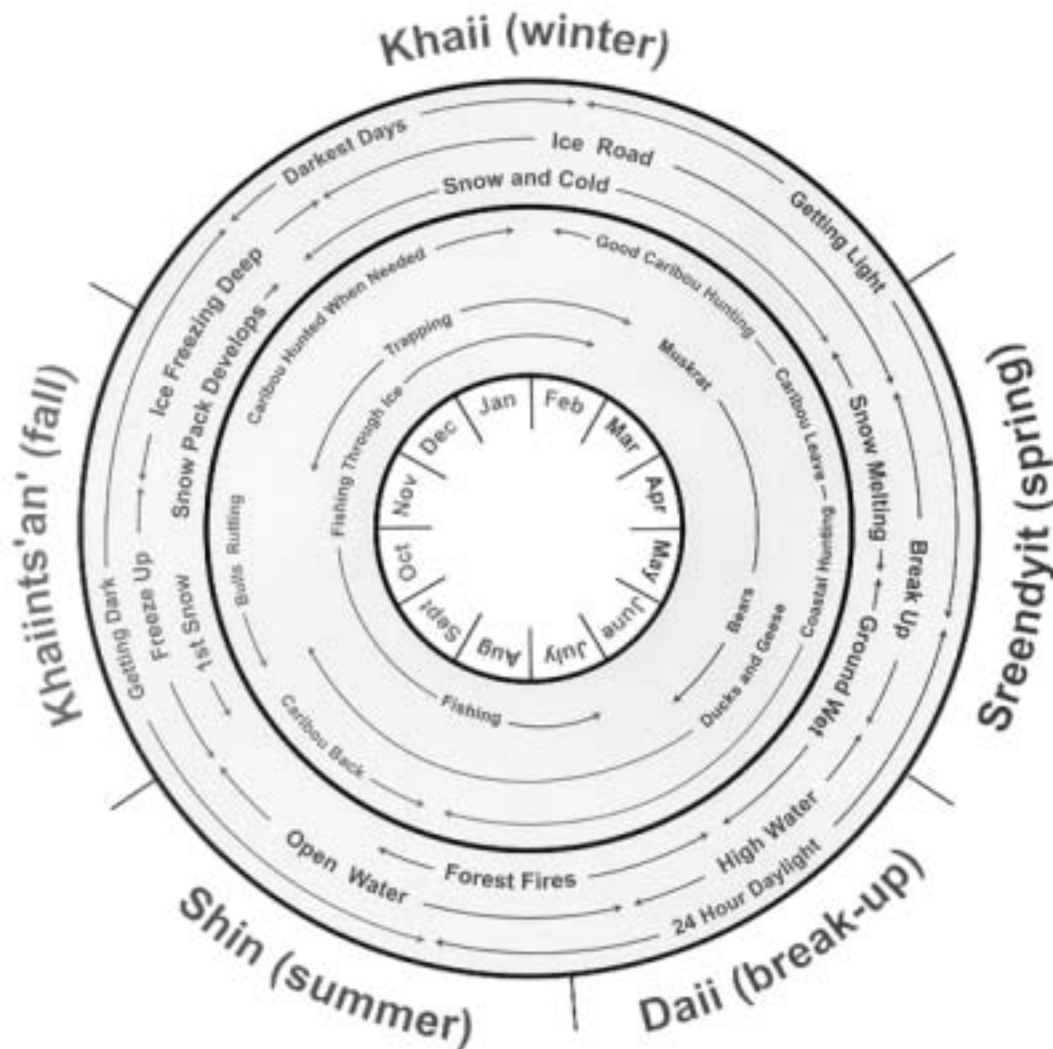
There are approximately 2,400 participants in the Gwich'in Land Claim, with 60% of the people living in the four communities of the Gwich'in Settlement Area. Aklavik (population 727) is a mixed community of Gwich'in and Inuvialuit, while Inuvik (population 3,296) has a mixed population of Gwich'in, Inuvialuit and non-aboriginals. The two predominantly Gwich'in communities are Fort McPherson (population 878) and Tsiigehtchic (population 162).⁵

Gwich'in live in an area that includes north-east Alaska, the northern Yukon and the north-western part of the Northwest Territories. Two of the original Gwich'in groups are found in the Gwich'in Settlement Area. The Gwichya Gwich'in live primarily in Tsiigehtchic, and the Teetl'it Gwich'in live primarily in Fort McPherson. Gwich'in in Aklavik and Inuvik have formed their own bands in the past 20 years: the Ehdiitat Gwich'in in Aklavik and the Nihtat Gwich'in in Inuvik.



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Figure 3: Gwich'in Seasons (Aklavik)

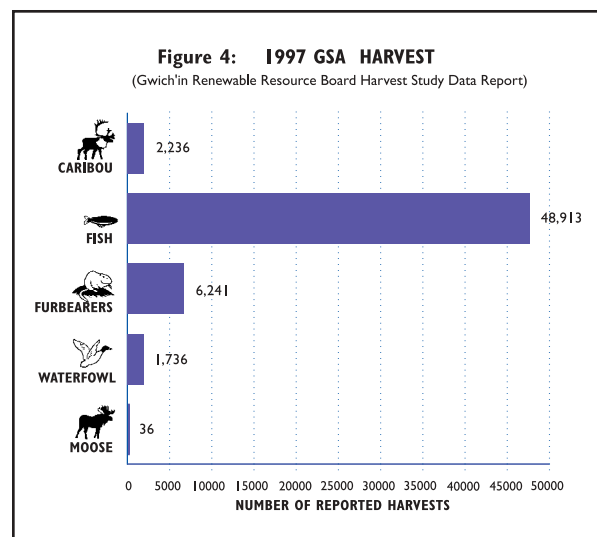


2.1.3 Economy

The economy of the Gwich'in Settlement Area includes the “traditional economy” based on the harvesting of plants and animals and the “wage economy” based on part and full time employment.

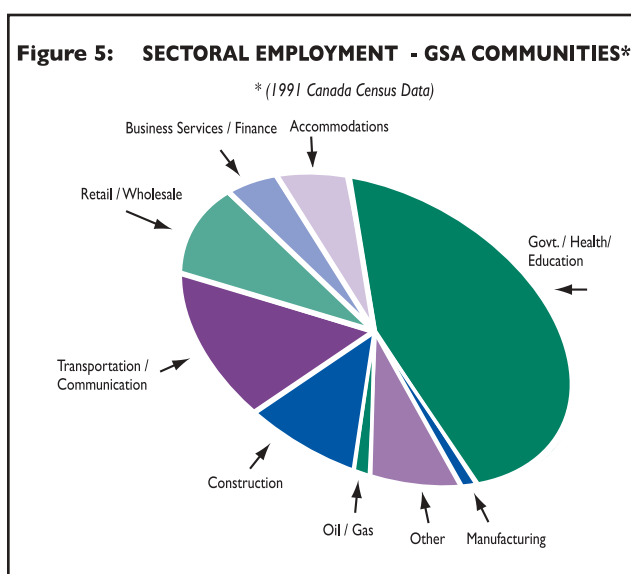
The traditional economy is associated primarily with the annual harvesting of renewable resources. Figure 3 shows the seasonal land uses for Ehdiitat Gwich'in of Aklavik as one example of the annual harvesting of wildlife associated with the traditional economy. Trapping, hunting, fishing and vegetation harvesting are traditional activities guaranteed to the Gwich'in through the Gwich'in Land Claim.⁶ The Gwich'in also have the right to travel and maintain hunting, trapping and fishing camps.

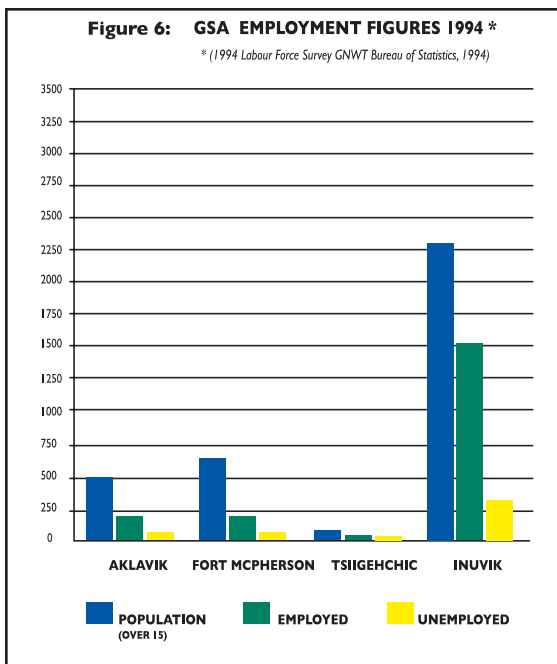
The amount of wildlife being harvested is being recorded through the Gwich'in Harvest Study. This study, conducted by the Gwich'in Renewable Resource Board, provides a profile of the types and approximate numbers of wildlife harvested in the Gwich'in Settlement Area (see Figure 4). There is also subsistence forest harvesting occurring for a variety of uses (fuel, building material, etc.).⁷ Traditional medicines, from both trees and plants, are still used today and other vegetation, like berries, are harvested.⁸



The wage economy of the late 1990s in the Gwich'in Settlement Area is dominated by government and Gwich'in Land Claim related employment (see Figure 5). The private sector businesses that do operate in the Gwich'in Settlement Area rely heavily on government contracts. The economy associated with oil and gas has all but vanished from the settlement area. Trapping, which anchored the economy for the first half of the century, is now a small contributor to the local economy. Tourism has yet to contribute substantially to the Gwich'in Settlement Area economy, but is viewed as a potential growth area. The labour force of the Gwich'in Settlement Area possesses skills associated with renewable resource harvesting and management, water and land transportation, oil and gas activities, construction, tourism and traditional arts and crafts.

Wage and traditional economies are linked in many ways. Trapping, considered as a traditional activity, is an extension of the cash economy. Subsistence hunting and fishing, as they are currently practiced, require an income source to cover costs of fuel, boats, guns, snowmobiles, etc. The Gwich'in continue the historic pattern of switching between the traditional to the wage economy and are now much more dependent on the wage economy than they were earlier this century. In periods when the wage economy is not strong, traditional activities can take care of many basic needs: food, fuel and shelter.





The average unemployment rate in the Gwich'in Settlement Area is 30% (see Figure 6).⁹ The average income in the Gwich'in Settlement Area is low at approximately \$17,000, while the cost of living in the Gwich'in Settlement Area is much higher than in other areas in Canada.¹⁰

2.1.4 “The Land” As The Environment

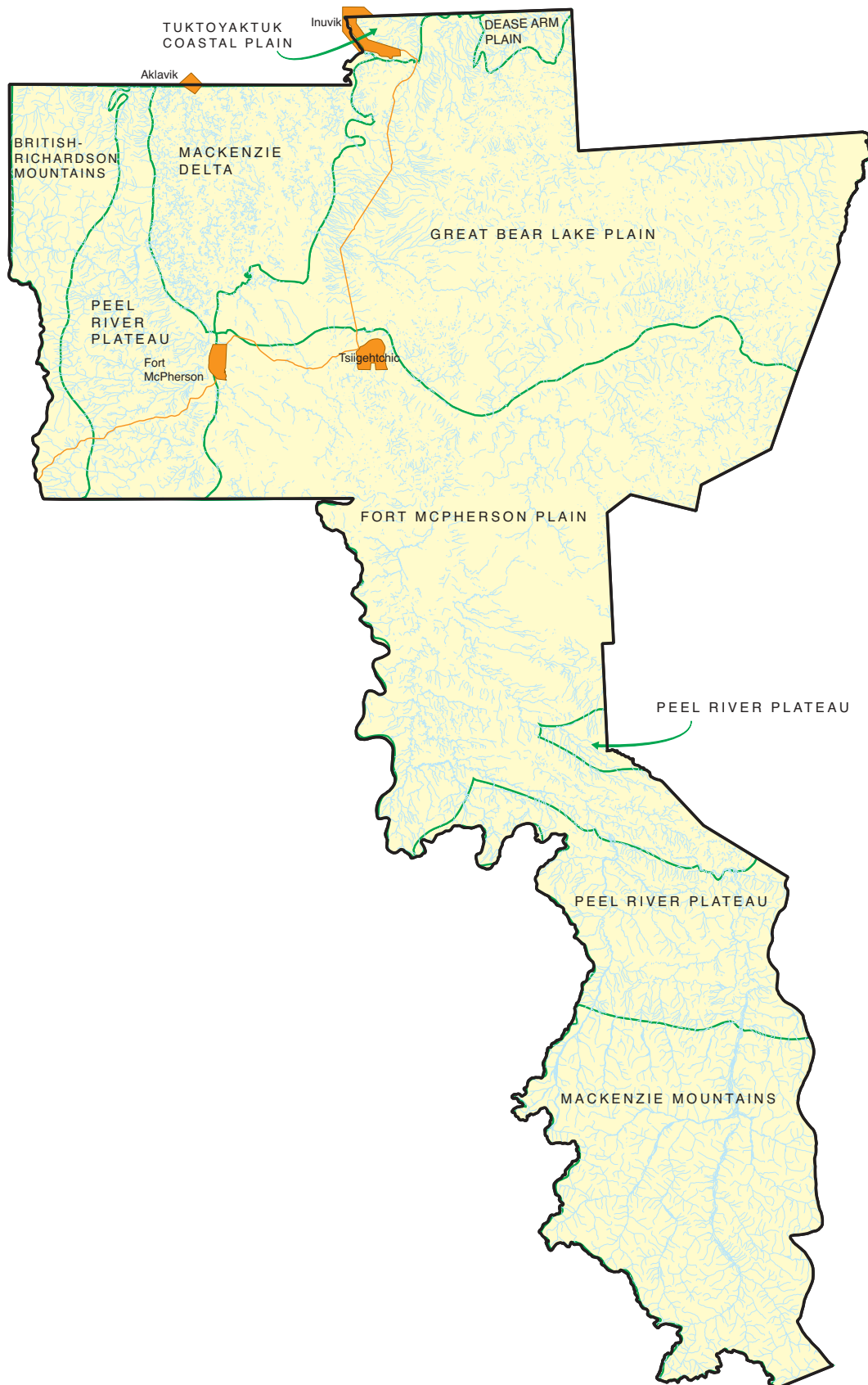
“The land”, or the environment, includes all parts of the natural and cultural landscape. People are a part of the environment, as well as landforms, water, air, fire, minerals, plants and animals. How all these components work together as natural and social systems is also part of the environment.

The natural landscape of the Gwich'in Settlement Area is diverse and sustains a large variety of plant and animal species for its latitude in North America. This is primarily because the settlement area is positioned along the treeline and supports both arctic and sub-arctic species. In general, the Gwich'in Settlement Area is considered a sub-arctic area.

The natural landscape can be divided into different zones based on similar land, water, plant and animal features. These zones have been developed by the “National Ecological Framework for Canada” and are called ecoregions. There are six major ecoregions within the Gwich'in Settlement Area (see Figure 7). The ecoregions include the Mackenzie Delta, Peel River Plateau, Great Bear Lake Plain, Fort McPherson Plain, British-Richardson Mountains and Mackenzie Mountains.

Gwich'in would not recognize most of the names associated with these ecoregions. They do not divide the land based solely on natural features but combine the natural landscape with cultural divisions. The English names now commonly used to describe the broadest landscapes in the Gwich'in Settlement Area are “the Delta” (Mackenzie Delta), “the mountains” (Richardson Mountains) and main valleys of the three major rivers: “the Peel, Arctic Red and Mackenzie”. Few people would recognize the name Mackenzie Mountains to describe the mountains at the headwaters of the Arctic Red River.

Figure 7: Ecoregions



The Gwich'in Social and Cultural Institute has been documenting Gwich'in place names and has found that historical Gwich'in place names are far more extensive and detailed than those used today. Their ongoing work is revealing that Gwich'in culture, like the Gwich'in Settlement Area physical landscape, is diverse and has its own features.

2.2 Heritage Resources

The Gwich'in have lived in the settlement area for thousands of years and they have a distinct history and culture. Throughout this history contact between

Gwich'in and other groups has occurred influencing Gwich'in culture. There are many links to Gwich'in history and culture that can be found on the land and in Gwich'in oral history. Gwich'in heritage resources include locations considered to be of cultural value, burial sites, archaeological and historic sites and their associated artifacts, documentation and records related to Gwich'in culture and history. Locations that are considered of cultural value include sacred sites, named places, traditional camps,

trails, berry picking areas, harvesting areas (medicines, wildlife, fish), meeting places and caribou corrals. Heritage resources provide a record of Gwich'in use of the land through time and are of spiritual, historical, cultural, religious and educational significance.

Oral history is a vital part of heritage resources for the Gwich'in. Elders have a vast knowledge of the land from both personal experience and oral tradition, and they are helping document extensive trail systems and hundreds of places connected to these trails. These important places have stories connected to them talking about many things such as sacred places, legendary locales, culture, rules and values.



Gwich'in Social and Cultural Institute

2.3 Renewable Resources: Water, Wildlife, Forests and Tourism

2.3.1 Water

“Water is the lifeblood of the environment. Without water no living thing, plant or animal, can survive”.¹¹ Water is recognized as crucial to the environment and people of the Gwich’in Settlement Area.¹² It is integral to Gwich’in culture as it maintains wildlife and fish that are used in traditional activities. Water also provides essential travel routes. Human uses of water in the Gwich’in Settlement Area include: transportation, waste disposal, industrial activities, forest fire control, fisheries, recreation and domestic use.

Water flows from the south into the Gwich’in Settlement Area and eventually into the Arctic Ocean. The Gwich’in Settlement Area is part of the Mackenzie River Basin, which encompasses portions of Saskatchewan, Alberta, British Columbia, the Yukon and the Northwest Territories. Much of the water that reaches the Gwich’in Settlement Area has been used extensively by other groups in the Mackenzie River Basin.



Resources Wildlife and Economic Development

The three main river channels in the Gwich’in Settlement Area are the Mackenzie River, Peel River and Arctic Red River. The Mackenzie River is the ninth longest river in the world and has the second largest arctic delta. In comparison to other rivers its size, it is undeveloped and unpopulated.

There are also a number of smaller important rivers such as the Rat River, Rengleng River, Travaillant River, Kugaluk River, and Carnwath River. Other notable water related features in the Gwich’in Settlement Area include wetlands, groundwater areas, and headwater areas.

2.3.2 Wildlife and Fish

Wildlife and fish are vital resources of the Gwich’in Settlement Area and significant parts of the environment. Wildlife and fish play a central role in Gwich’in cultural heritage. Gwich’in depend on a variety of wildlife and fish for hunting, fishing and trapping. Wildlife and fish also provide opportunities for commercial hunting and fishing, tourism and recreation. There are a diverse number of wildlife and fish species in the Gwich’in Settlement Area. Known to occur in the Gwich’in Settlement Area are approximately 38 species of mammals, 151 species of birds, and 32 species of fish.

Gwich'in Words for Fish and Wildlife

Teetl'it Gwich'in and Gwichya Gwich'in are the two dialects spoken in the Gwich'in Settlement Area.

English	Teetl'it	Gwichya
caribou	vadzaih	vadzaii
Dall's sheep	divii	divii
grizzly bear	shih	sheh
moose	dinjik	dinjik
wolverine	nehtruh	nehtryuh
whitefish	luk zheii	luk zhii
coney	sruh	sryuh
charr	dhik'ii	dhik'ii
waterfowl	dats'an	dats'an
birds	dzhiig	dzhiig

Important mammals for communities include Porcupine caribou, Bluenose caribou, Dall's sheep, grizzly bear, moose and furbearers in general. Three mammals found in the Gwich'in Settlement Area are listed as being vulnerable by the Committee on the Status of Endangered Wildlife in Canada: grizzly bear, wolverine and woodland caribou.

Waterfowl are of particular importance to cultural activities in the Gwich'in Settlement Area. The peregrine falcon (threatened) is the only bird species in the Gwich'in Settlement Area listed as endangered, threatened or vulnerable in Canada.

Fish are significant for traditional, commercial and recreational activities. There are many important species locally such as whitefish, inconnu and dolly varden charr. At the local level there is concern about the future of dolly varden charr. No fish species in the Gwich'in Settlement Area is listed as endangered, threatened or vulnerable.

2.3.3 Forests

Forests play a significant role in the environment and in Gwich'in traditional life. Forests are diverse areas supporting many species of plants and animals, as well as stabilizing soils, enhancing water quality, and controlling water levels. Fish and wildlife populations depend on the responsible use of forests. Gwich'in also rely on forests for essential materials. Products from forests include fuel wood, material for houses, cabins, toboggans, snowshoes and many other necessities including medicine. Forest areas are used for hunting, trapping and fishing. There is little commercial forestry taking place in the Gwich'in Settlement Area.

Generally, forest stands are found throughout the Gwich'in Settlement Area excluding the mountainous regions. Potential commercial forest stands are sporadic and located along banks of the Peel, Arctic Red, Mackenzie Rivers and in the Mackenzie Delta. The main forestry species are white and black spruce. Other species include white birch, tamarack, aspen, alder and willow.

2.3.4 Tourism

Tourism is growing in the Gwich'in Settlement Area and has the potential to become an important source of income for residents. The Gwich'in Settlement Area provides tourists with the opportunity to have wilderness, recreational and cultural experiences.

Tourist surveys confirm that the number of visitors to the Gwich'in Settlement Area is increasing and that the tourists are enjoying their travels. Tourists come to the area to canoe, boat, hike, sport hunt and fish, look at wildlife, and tour the communities. Attractions include the Mackenzie and Richardson Mountains, and the Mackenzie Delta. The Dempster Highway is another attraction for tourists due to the scenery and provides tourists access to the Gwich'in Settlement Area.

There are approximately ten tour operators now in business. Tourism is diversifying to include winter activities such as snowmobiling, dog team mushing and cross country skiing tours. Facilities range from look-out sites, community parks and Territorial Parks.



Canadian Arctic Adventure

2.4 Non-Renewable Resources: Oil, Gas, Minerals, Sand, Gravel and Crushed Rock

2.4.1 Oil and Gas

Oil and gas are two of the world's greatest sources of non-renewable energy. Significant oil and gas discoveries have been made in the Beaufort Sea/Mackenzie Delta Region. Substantial oil reserves are located in the southern Beaufort Sea. It is estimated that about 15% of Canada's proven oil reserves are found in the Beaufort Sea/Mackenzie Delta Region.

At this time, there are minimal oil and gas activities in the Gwich'in Settlement Area. Generally, there is low potential for oil discoveries in the Gwich'in Settlement Area. There is some oil potential along the Eskimo and Trevor Fault, between Aklavik and Fort McPherson. Gas potential is more widely distributed encompassing all the Interior Platform in the Gwich'in Settlement Area (see Figure 8).

The Gwich'in Settlement Area is not a major oil and gas area in comparison to the Beaufort Sea Region. However, the Gwich'in Settlement Area has the potential to be a vital transportation link for oil and gas if the Beaufort Sea oil and gas reserves are developed.¹³ Several pipeline corridors have been identified through the Gwich'in Settlement Area in connection to oil and gas production in the Beaufort Sea Region. The three main identified pipeline corridors¹⁴ are the Mackenzie Valley corridor just north of the Mackenzie River, the Mackenzie Valley corridor south of the Mackenzie River, and the Dempster Highway lateral corridor.



Ron Cruikshank

2.4.2 Minerals

The mineral resources of the Gwich'in Settlement Area are concentrated in the Mackenzie Mountains and Richardson Mountains. In general, the Mackenzie Mountains have higher mineral potential than the Richardson Mountains.

Deposits that may be found in the Mackenzie Mountains in the Gwich'in Settlement Area include iron ore, lead,

zinc, and copper. In particular, the Gayna River Lead-Zinc deposit found along the Sahtu/Gwich'in border is of significance.¹⁵ There is a significant crest iron ore deposit in the Mackenzie Mountains adjacent to the Yukon border. However, the majority of the iron resources are found in the headwaters of the Snake River in the Yukon Territory outside of the Gwich'in Settlement Area. There may be other significant deposits in the Mackenzie Mountains, but as the area is remote there has been less exploration in this area in comparison to other areas in the Northwest Territories.

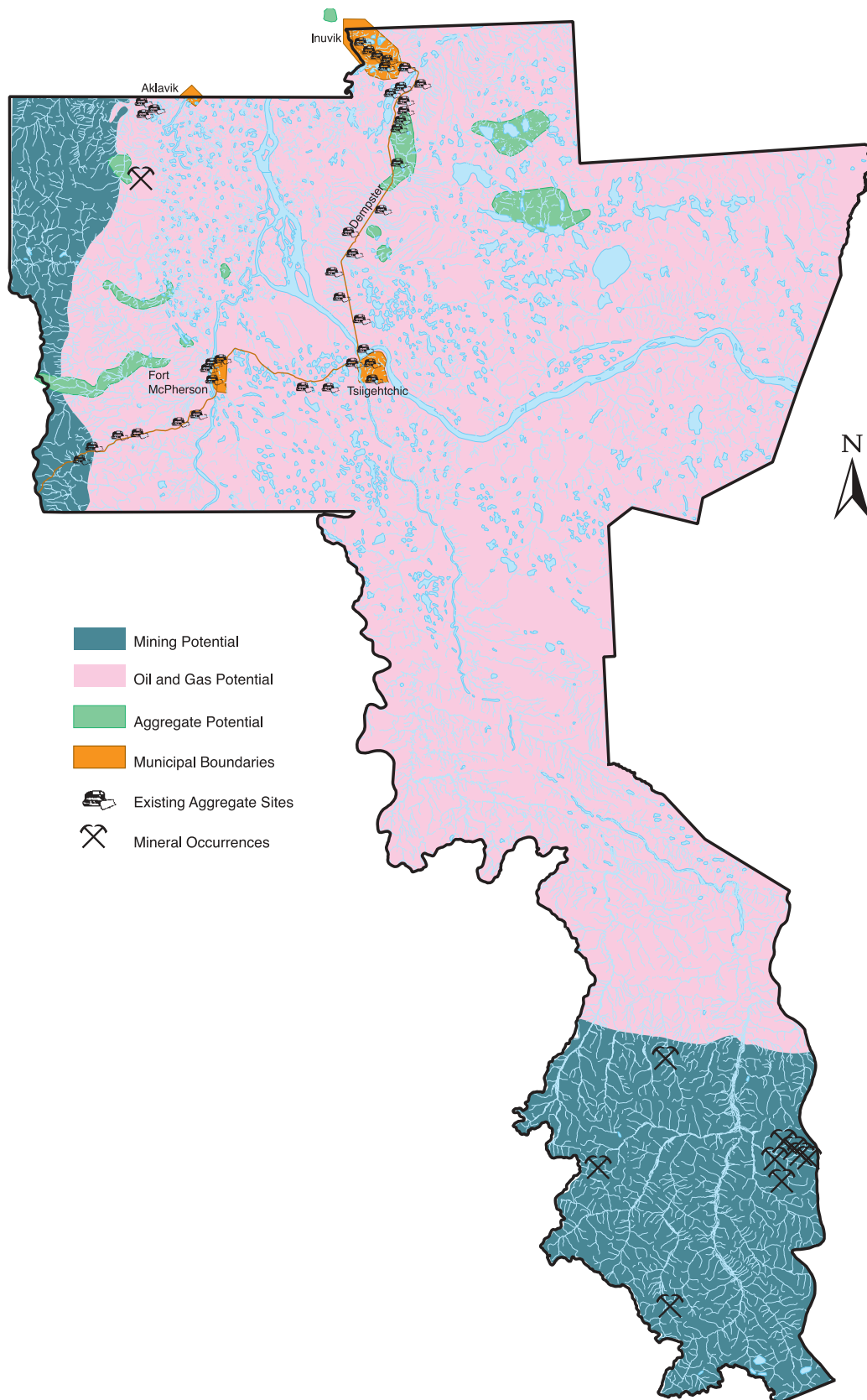
There are minor mineral occurrences of copper and gypsum in the Richardson Mountains within the Gwich'in Settlement Area. There are also some coal deposits near the town of Aklavik that could be used for domestic use.

There are no active mineral related mines or mineral related exploration activities occurring in the Gwich'in Settlement Area. Some prospecting is taking place in the headwaters of the Arctic Red River in the Mackenzie Mountains within the Gwich'in Settlement Area. This prospecting may or may not show promising minerals deposits that warrant further exploration.

2.4.3 Sand, Gravel and Crushed Rock

Topsoil, sand, gravel and crushed rock are the main types of materials removed from pits in the Gwich'in Settlement Area. Topsoil pits extract organic soils from the land surface. Sand and gravel is generally extracted from glacial deposits. Crushed rock pits use rock that is blasted and crushed into smaller sizes.

Figure 8: Non-Renewable Resources



There are approximately 38 pits in the settlement area. Fourteen pits are being actively used, while 4 are being used for stockpiling. Access to sand, gravel and crushed rock is important for the maintenance of the Dempster Highway and will be necessary for developments that require new roads.

2.5 Transportation and Communication

Transportation networks play a crucial role in the economy and life of the people of the Gwich'in Settlement Area. There is an extensive traditional network of travel routes used by the Gwich'in. Modern transportation options include barges, boats, motorized land vehicles and aircraft.

Goods and supplies are brought in by barges along the major waterways, aircraft and road. The Dempster Highway connects Fort McPherson, Tsiigehtchic and Inuvik to the Yukon Territory and the rest of Canada. It is the most northern public highway in North America and is open year round except for short periods of time during river freeze up and ice break-up. Ice road extensions created in the winter provide highways links to Aklavik and Tuktoyaktuk.

The main travel options for people coming into the area are the Dempster Highway and aircraft. Inuvik is the centre for air travel with a jet accessible airport while Fort McPherson and Aklavik each have small airports. Within the Gwich'in Settlement Area, boat travel is common in the summer and snowmobile travel is the main mode of travel in the winter.

Communication in the Gwich'in Settlement Area is provided through telephone services in all communities, and internet access in Inuvik. Radio is also an important part of communication for the area as bush radios let people stay in touch while on the land. Radio and television programs provide local, national and international news and entertainment for the Gwich'in Settlement Area.



Ron Cruikshank

2.6 Existing Designated Areas

Several areas within the Gwich'in Settlement Area have conservation related designations:

Peel River Preserve

Established in the 1920s. Provides hunting rights to the Gwich'in within its boundaries. The Peel River Preserve, although still in place, is not considered a significant designation today because traditional hunting rights are guaranteed by the Gwich'in Land Claim.

Arctic Red River Heritage River

Established in 1993 through the Canadian Heritage Rivers System. The designation gives national recognition to Canada's outstanding rivers. Heritage River status promotes protection of the river but does not set aside land for conservation.

Gwich'in Territorial Park

Established in 1996 by the Government of the Northwest Territories. This is a small park (88 km²) on the outskirts of Inuvik created to provide economic and recreation opportunities, and to conserve wildlife habitat and heritage values. This small park is the only area in the Gwich'in Settlement Area with a partial conservation mandate. The park has significant wildlife habitat (peregrine falcon, waterfowl and fish).

Nagwichoonjik (Mackenzie River) National Historic Site

Established as a National Historic Site in January 1998. This section of the Mackenzie River from Thunder River to Point Separation will be commemorated by a number of trilingual plaques along the designated stretch of the river. This section of the Mackenzie River was chosen as a National Historic Site due to its cultural, social and spiritual significance to the Gwich'ya Gwich'in.



Lost Patrol Memorial

There is a monument at the base of Gwatlat Hill marking the location of where the bodies of Constables Kinney and Taylor were found from the Royal Northwest Mounted Police "Lost Patrol". The monument is a log pyramid with a wooden plaque.

Wayside Parks

There are a number of small wayside parks along the Dempster Highway. Wayside parks provide facilities to tourists and recreational opportunities for local residents.

References

- ¹ Gwich'in Comprehensive Land Claim Agreement (1992)
- ² Gwich'in Comprehensive Land Claim Agreement (1992)
- ³ Gwich'in Comprehensive Land Claim Agreement (1992)
- ⁴ Gwich'in Comprehensive Land Claim Agreement (1992)
- ⁵ NWT Bureau of Statistics, 1994.
- ⁶ Gwich'in Comprehensive Land Claim Agreement (1992), Sections 12.1, 13.1 and 14.1.1
- ⁷ Gwich'in Renewable Resource Board, Gwich'in Settlement Area Forest Use Survey for 1996
- ⁸ Gwich'in Renewable Resource Board, Gwich'in Settlement Area Forest Use Survey for 1996
- ⁹ NWT Bureau of Statistics, 1994 Labour Force Survey
- ¹⁰ NWT Bureau of Statistics (1994)
- ¹¹ Science Council of Canada (1988) Water 2020:Sustainable Use for Water in the 21st Century
- ¹² Integrated Resource Management and Land Use Planning Workshop, Inuvik (1997)
- ¹³ Department of Indian Affairs and Northern Development, 1998, Comments on Preliminary Draft Land Use Plan
- ¹⁴ Department of Indian Affairs and Northern Development, 1998, Comments on Preliminary Draft Land Use Plan
- ¹⁵ Department of Indian Affairs and Northern Development, 1998, Comments on Preliminary Draft Land Use Plan