



Draft Gwich'in Land Use Plan Revisions

Gwich'in Land Use Planning Board
April, 2010

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Acknowledgments

The Gwich'in are as much a part of the land as the land is a part of their culture, values, and traditions. In the past they were stewards of the land on which they lived, knowing that their health as people and a society was intricately tied to the health of the land. In response to the Berger enquiry of the mid 1970's, the government of Canada made a commitment to recognise this relationship by establishing new programmes and institutions to give the Gwich'in people a role as stewards once again. One of the actions taken has been the creation of a formal land use planning process.

Many people from all communities in the Gwich'in Settlement Area have worked diligently on land use planning in this formal process with the government since the 1980s. Throughout these years people have continued to put their time and energy into land use planning because of their commitment to taking care of the land and their children's future. The Gwich'in helped to set the framework for the 1983 Basis of Agreement on Northern Land Use Planning. The first attempt to develop a Land Use Plan was through the Mackenzie Delta Beaufort Sea Land Use Planning process which was appointed in 1987 and included Gwich'in representatives. The Mackenzie Delta Beaufort Sea Land Use Plan produced in 1991 was not approved or implemented by government. After the signing of the Gwich'in Land Claim in 1992, the Gwich'in Interim Land Use Planning Board was given the task to begin land use planning again. However, it was not until the Mackenzie Valley Resource Management Act was passed in 1998 that there was the legal authority to produce a Gwich'in Land Use Plan.

The Gwich'in Land Use Planning Board (Planning Board) is proud to present the first revised edition of *Nành' geenjit gwitr'it t'igwaa'in/Working for the Land - Gwich'in Land Use Plan*. We would like to thank all the board members, staff, community members, government and industry participants who have worked on land use planning over the last 25 or so years. When reviewing the list of people they wished to acknowledge, the Board was saddened to observe that some are no longer with us. We leave their names in the list as a small tribute to the work that they did for future generations by sharing their knowledge about the importance of the land.

Current Planning Board Members include Bob Simpson (Chair), Charlie Snowshoe (Vice-chair), Ian McLeod, Fanny Greenland and Fred E. Koe. Other people who have contributed as Board Members include Karen LeGresley Hamre, Hal Mills, Margaret Donovan, Piet Van Loon, Robin Aitken and Norman Sencartier. The Planning Board would like to especially thank Charlie Snowshoe who has served on the Planning Board from its beginning. Charlie's interest and passion for land use planning stems from his love of the land and the Gwich'in people. He first became involved in the Mackenzie Delta Beaufort Sea Land Use Planning process and has continued in land use planning ever since. Charlie is an untiring source of energy, always ready to work and motivate those around him. We thank him for his dedication.

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like to recognise the efforts of Jane Henson as planner for the Gwich'in during the Mackenzie Delta Beaufort Sea land use planning process.

By far the greatest thanks for this Plan goes to the people from the communities of Aklavik, Tsiigehtchic, Fort McPherson and Inuvik who have worked hand in hand with us on the development of *Nành' geenjit gwitr'it t'igwaa'in/Working for the Land - Gwich'in Land Use Plan*. Regardless of how many times communities have been asked to contribute to projects or initiatives that have not met with expectations, they are still willing to participate and try to make a difference for their communities and their futures. They have put their trust in the Planning Board and staff to facilitate a land use plan that will protect their land and all that it encompasses while providing a base for economic opportunities. The Planning Board hopes that it meets community expectations.

The Planning Board would like to thank the following people for their participation, support and work in developing the Plan:

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Lastly, the Gwich'in Land Use Planning Board would just like to say a Mahsi' Choo (big thank you) to all participants throughout the many years of planning processes because without everyone's support, this *Gwich'in Land Use Plan* would not have been possible. We look forward to working with you on the implementation of an even better *Nanh' geenjit gwitr'it t'igwaa'in/Working for the Land - Gwich'in Land Use Plan*.

Susan McKenzie
Land Use Planner
_____, 2010

1. Introduction

1.1 What is in the Gwich'in Land Use Plan?

There is no prescribed format for a regional land use plan. The following content and structure of this document is based on the Gwich'in Land Use Planning Board's best efforts to make the Gwich'in Land Use Plan clear, effective, and easy to use. It is based on the first approved plan but has some small changes as the Board continually strives to refine the Plan to be an even better regulatory tool.

Chapter 1 Introduction

This chapter provides background on land use planning, the Gwich'in Land Use Planning Board, and the context for land use planning in the Gwich'in Settlement Area.

Chapter 2 Information about the Gwich'in Settlement Area

Chapter 2 describes the Gwich'in Settlement Area and its resources. This chapter outlines the significance of resources, how they are being used and what demands are on resources of the Gwich'in Settlement Area.

Chapter 3 Land and Water Regulation

The Land and Water Regulation chapter outlines land ownership in the Gwich'in Settlement Area, what groups are managing land and resources, and what regulations are in place to manage resources.

Chapter 4 Land Use Plan for the Future: Vision and Land Zones

Outlined in Chapter 4 is the Planning Board's perspective on land use planning and its vision for the future as well as the Land Zones for the Gwich'in Settlement Area. This is where the conditions and zoning that regulators will use to guide land use on a regional scale are found.

Chapter 5 Procedures for Implementing the Land Use Plan

Chapter 5 deals with the rules for implementing the Land Use Plan like: "Under what special circumstances will an exception to the Land Use Plan be considered?" or "What is meant by a five year review of the Land Use Plan?"

Chapter 6 Land Use Plan for the Future: Land Use Issues and a Regional Plan of Action

The first part of this chapter describes the direction the Board uses for dealing with various land use issues. Since the Gwich'in Land Use Plan is only one part of the regulatory system, the Planning Board intends to develop a companion document to help identify and monitor the larger issues around integrating resource management. Chapter 6 also discusses the content and structure of this document which will be called a Regional Plan of Action.

1.2 What is a Land Use Plan?

A Land Use Plan is one tool for taking care of the land and people of the Gwich'in Settlement Area today and in the future.¹ "Taking care of the land" means more than just looking after the ground beneath us. For people in the Gwich'in communities, taking care of the land means taking care of the whole environment including people, land, water, air, wildlife, heritage and other resources. Land has spiritual values as well as physical values. Taking care of the land means understanding and maintaining connections between all parts of the land. Land includes natural processes like migration of animals, the break-up and freeze-up of rivers and lakes, and fire.

An important part of land use planning is preparing to deal with future situations that may affect the land. Land use planning provides an opportunity to think about how land should be used today and in the future. In a land use plan there are goals for land use and recommended actions for meeting goals. A land use plan also sets aside different areas for different uses, and describes what is allowed and not allowed in specific areas.²

The Gwich'in Land Use Planning Board (Planning Board) has been given the authority to develop a Gwich'in Land Use Plan by the *Gwich'in Comprehensive Land Claim Agreement* (Gwich'in Land Claim) and the *Mackenzie Valley Resource Management Act*. The Gwich'in Land Claim establishes land ownership and sets up a system for land management. The Land Use Plan is one land management tool for the Gwich'in Settlement Area. The Planning Board has worked with the communities, Gwich'in, government, co-management, business and non-government groups to develop the Gwich'in Land Use Plan.

According to the Mackenzie Valley Resource Management Act, Gwich'in, government, and other regulatory authorities will be obligated to carry out their powers in accordance with the Gwich'in Land Use Plan, after it receives formal approval. Proposed land use activities will be required to conform to the Gwich'in Land Use Plan. The Planning Board will carry out a comprehensive review of the Gwich'in Land Use Plan no later than five years after it receives formal approval, in order to consider new issues, information, opportunities and user needs. The Plan will continue to be reviewed every five years unless the Gwich'in, the federal minister and the territorial minister agree to review it at a different time.

1.3 What is the Gwich'in Land Use Planning Board?

The Planning Board is a public board comprised of five members. Two are nominated by the Gwich'in Tribal Council, one by the territorial government and one by the federal government. The chairperson is chosen by these four members. All are appointed by the Minister of Indian and Northern Affairs. They hold three year terms and serve the interest of the public rather than just representing the interest of their nominator.

SIDE BAR: The Planning Board receives funding through the implementation of the Gwich'in Land Claim. It allows the Board to have an office, one or two staff, hold Board meetings, and consult with the Gwich'in, communities, government and other stakeholders. The Board has sought and received funds from other sources so that we could better fulfill our mandated responsibilities.

1.4 What are the principles guiding the development of the Land Use Plan?

The principles and objectives guiding the development of the Land Use Plan are found in the Gwich'in Land Claim.³ The Planning Board uses these principles and objectives as a guide for its work. Similar objectives and principles are also found in the *Mackenzie Valley Resource Management Act*.⁴

1.4.1 Objectives from the Land Claim Agreement Guiding Planning

1. To recognize and encourage the Gwich'in way of life which is based on the cultural and economic relationship between the Gwich'in and the land (Section 1.1.3).
2. To encourage the self-sufficiency of the Gwich'in and to enhance their ability to participate fully in all aspects of the economy (Section 1.1.4).
3. To provide the Gwich'in the right to participate in decision making concerning the use, management and conservation of land, water and resources (Section 1.1.7).
4. To protect and conserve the wildlife and environment of the settlement area for present and future generations (Section 1.1.8).
5. To integrate planning and management of wildlife and wildlife habitat with the planning and management of all types of land and water use in order to protect wildlife and wildlife habitat (Section 12.1.1f).

1.4.2 Planning Principles in the Land Claim Agreement

1. The purpose of land use planning is to protect and promote the existing and future well-being of the residents and communities of the settlement area having regard to the interests of all Canadians (Section 24.2.4a).
2. Special attention shall be devoted to:
 - i) protecting and promoting the existing and future social, cultural and economic well-being of the Gwich'in;
 - ii) lands used by the Gwich'in for harvesting and other uses of resources;
 - iii) the rights of the Gwich'in under this agreement (Section 24.2.4b).
3. Land use planning shall directly involve communities and designated Gwich'in organizations (Section 24.2.4c).
4. The plan developed through the planning process shall provide for the conservation, development and utilization of land, resources and waters (Section 24.2.4d).
5. Water resources planning within the Mackenzie Valley is an integral part of land use planning (Section 24.2.5).

1.5 What is the Land Use Planning Process?

The Planning Board identifies six stages to the planning process it uses. They are:

1) Information Gathering

The Board continually gathers and updates information about wildlife, forests, heritage sites, current land uses, etc., but at this stage decisions are made about selecting information to use for planning. Also at this stage, formal consultations begin with Gwich'in, communities, government and industry (the stakeholders) to identify issues that should be addressed in the Plan.



2) Plan Options

What needs to be in the Plan? Here the Board presents ideas for solutions to potential land use issues based on the best information that is available.



3) Draft Land Use Plan

This is the first effort at proposing the content and structure of the Plan document. The Board distributes the document and collects comments from the stakeholders.



4) Final Land Use Plan

After all stakeholders have had a chance to comment on the draft plan, the Board produces the Final Plan. The Board submits the finalised document to the Gwich'in Tribal Council, the territorial government, and the federal government for approval (the signatories). The Board will consider all of the comments the signatories make. If the Board decides to change the final plan based on the comments, then all three have to agree.



5) Plan Implementation

At this stage, the Plan is put into use by regulatory agencies for making decisions about land use and resource management. The Board has a responsibility to monitor how the Plan is used and if it is effective.



6) Review and Amendment

After the approval of the Plan in 2003, the Board is now required to facilitate a review of the Plan once every five years. This gives the Board an opportunity to continually improve and update the Plan and to ensure it is meeting the goals and objectives. This document is the result of the first review process and as soon as it was approved the Board began the cycle again at stage one for review number two.

The consultation work of the Planning Board is critical to all stages of the planning process. It ensures we have useful direction on goals, land use issues, and the land use zoning system. Because Gwich'in, communities, government and business groups are more directly involved in the planning process, we feel there will be better support for, and understanding of the Plan. This is what will make a successful land use plan.

Appendix A contains a summary of meetings, list of stakeholders, and documents produced from the development of the plan. A similar summary for the five year review is in Appendix B.

1.6 How was the Gwich'in Land Use Plan Formally Approved?

The Gwich'in Land Use Plan was approved by three signatories. The first group required to approve the Plan was the Gwich'in Tribal Council. The second was the territorial government and the third was the federal government. This is the same process that is required for the approval of any proposed revisions during the 5-year review.

1.7 “Conformity with the Land Use Plan” What does it mean?

“Conformity with the Gwich'in Land Use Plan” means groups are legally obligated to follow the Land Use Plan. All groups including the Gwich'in, federal government, territorial government, co-management boards and business groups are required to conform to the approved Land Use Plan. The Plan is written so that land users can look at the Plan and figure out for themselves whether a proposed land use is likely, or is not likely to conform to the Plan.

Regulators, like the Gwich'in Land and Water Board, cannot issue a licence, permit or authorization until it is established that the proposed activities are in conformity with the Land Use Plan. If there are questions about conformity, the Planning Board will decide if the activity conforms to the Land Use Plan. Best practices for conformance checks are outlined on [page 44](#).

References

¹ GNWT Comments: Gwich'in Settlement Area Land Use Plan-Plan Options Paper, 1997 p.1

² Department of Indian Affairs and Northern Development, Fact Sheet: Land Use Planning Boards (1999).

³ Gwich'in Comprehensive Land Claim Agreement (1992), Sections 1, 24 and 25.

⁴ Mackenzie Valley Resource Management Act (1998), Sections 35, 58, 64, 114, and 115.

2. Information about the Gwich'in Settlement Area and its Resources

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 1). 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.

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

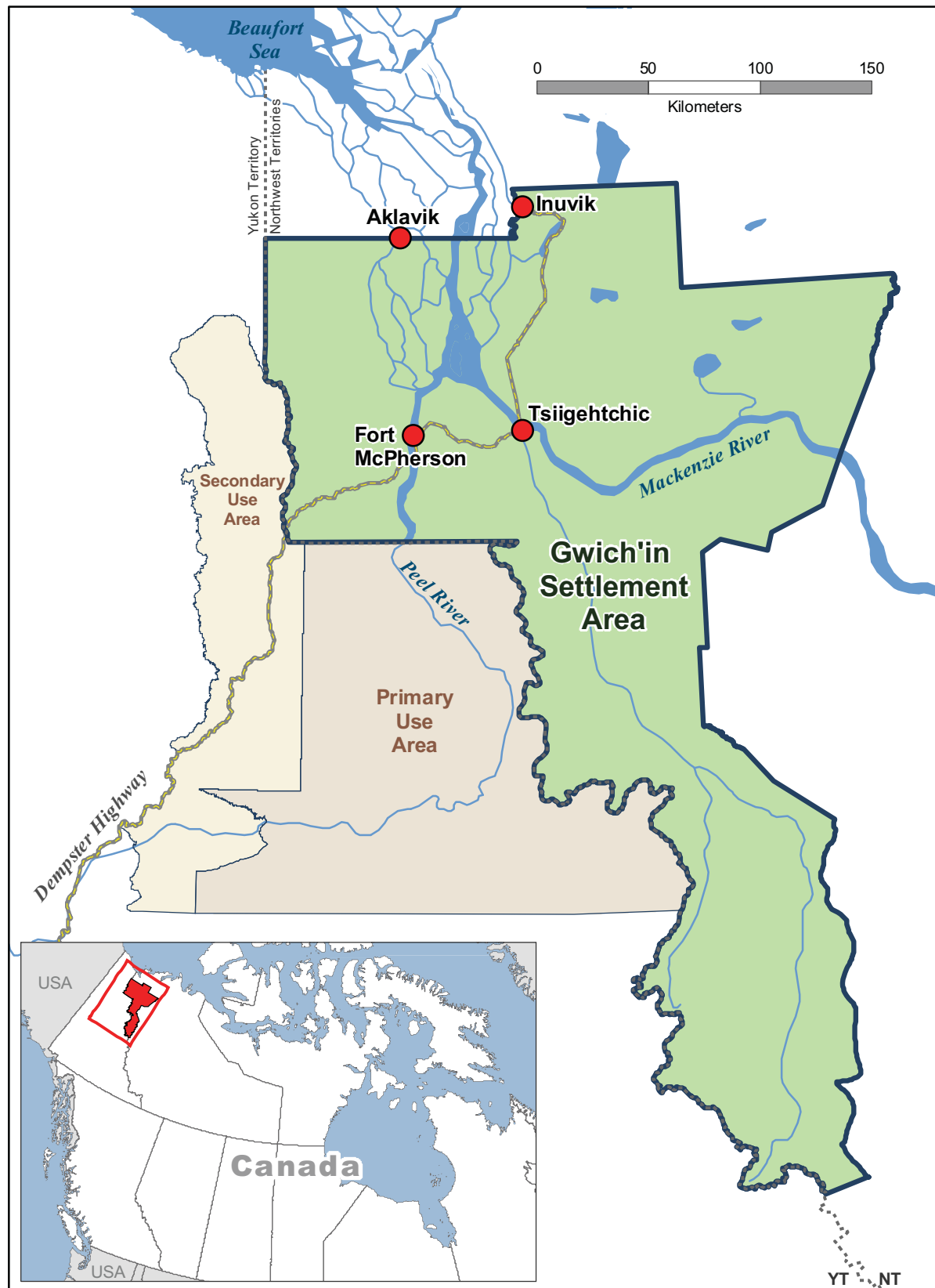
The Gwich'in Settlement Area is bordered by the Inuvialuit Settlement Region to the north, the Sahtu Settlement Area to the southeast and the Yukon Territory to the west. In the Inuvialuit Settlement Region, community conservation plans have been developed in place of Land Use Plans. Gwich'in settlement 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 middle of developing a Land Use Plan.

2.1.2 People

There are approximately 2,500 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 629) is a mixed community of Gwich'in and Inuvialuit, while Inuvik (population 3,420) has a mixed population of Gwich'in, Inuvialuit and non-aboriginals. The two predominantly Gwich'in communities are Fort McPherson (population 791) and Tsiigehtchic (population 177).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.

Figure 1: Gwich'in Settlement Region

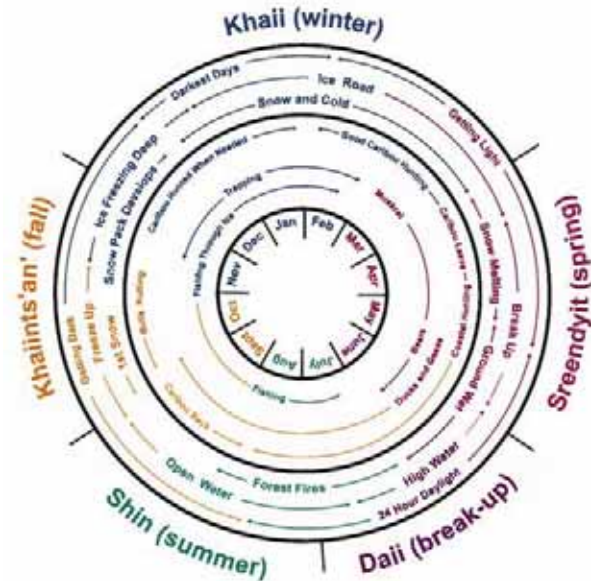


2.1.3 Economy

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 2 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.

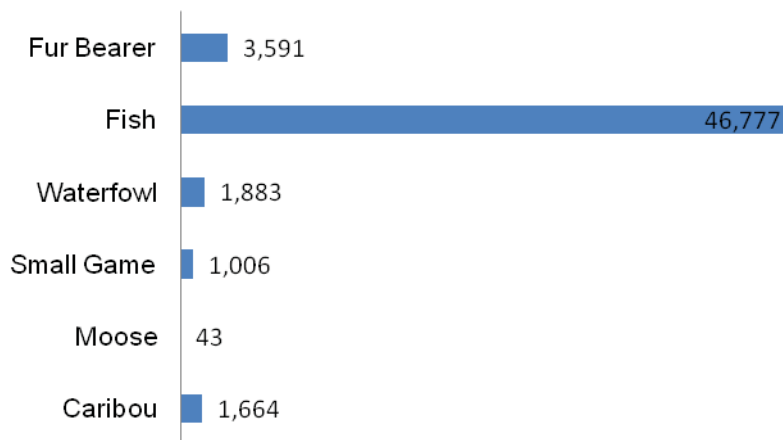
Figure 2: Gwich'in Seasons Calendar



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 3). 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 Gwich'in Settlement Area is dominated by government and Gwich'in Land Claim related employment (see Figure 4). The private sector businesses that

Figure 3: Annual Average Harvest Estimates
(Gwich'in Renewable Resources Board Harvest Study)



do operate in the Gwich'in Settlement Area rely heavily on government contracts.

The economy associated with oil and gas is very much tied to the Mackenzie Gas Pipeline project at this time. This sector is currently quiet but if the pipeline project proceeds, there will likely be an increase in exploration activity.

Trapping, which anchored the economy for the first half 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 practised, 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. Figure 5 provides an idea of the current participation rate and reliance on traditional activities based on 2003 data.

Figure 4: Labour Force Profile GSA Communities (2006)

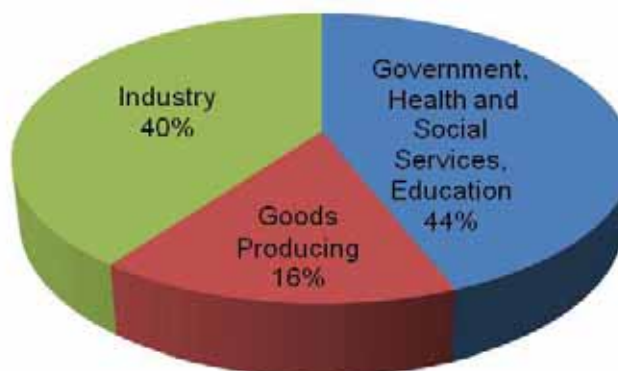
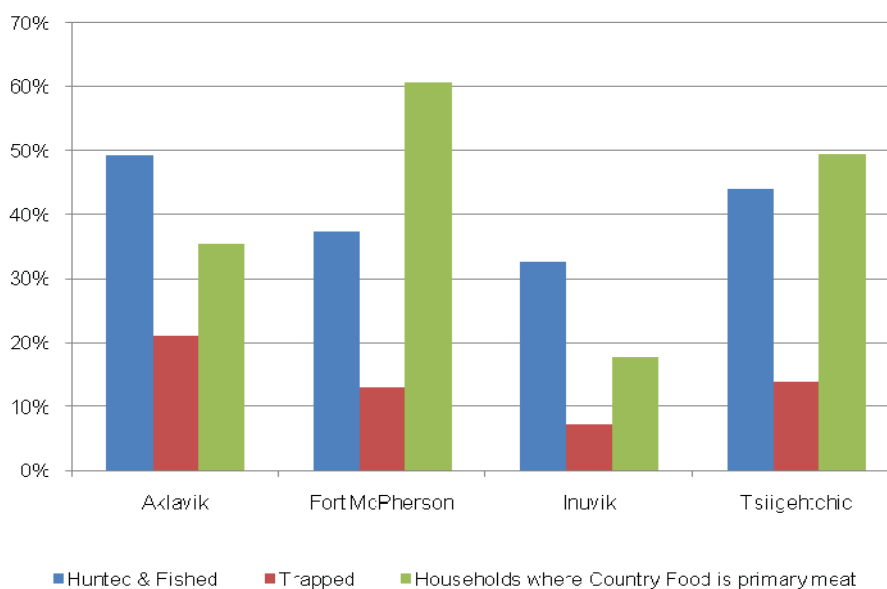
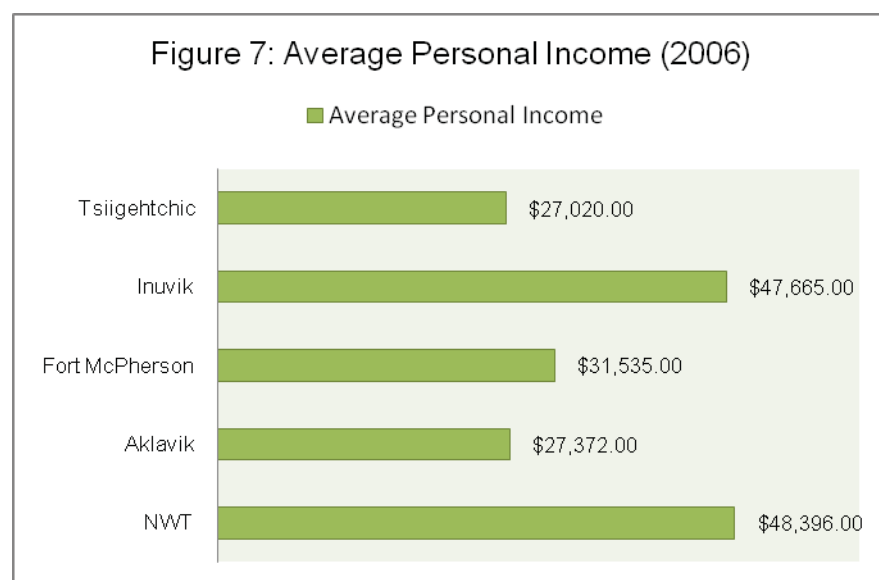
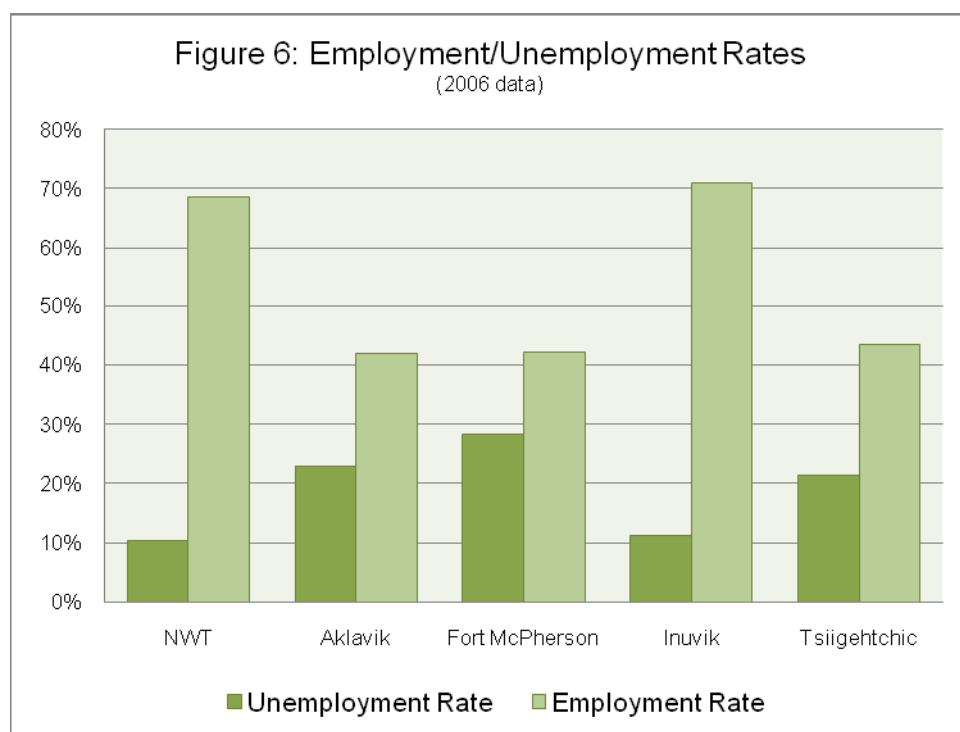


Figure 5: Traditional Activities in Gwich'in Communities



The average unemployment rate in the Gwich'in Settlement Area is about 16%, but the rate varies significantly between communities (see Figure 6).⁹ The average income in the Gwich'in Settlement Area communities ranges between \$27,000 and \$48,000 (see figure 7), 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 8). The ecoregions include the Mackenzie Delta, Peel River Plateau, Great Bear Lake Plain, Fort McPherson Plain, British-Richardson Mountains and Mackenzie Mountains.

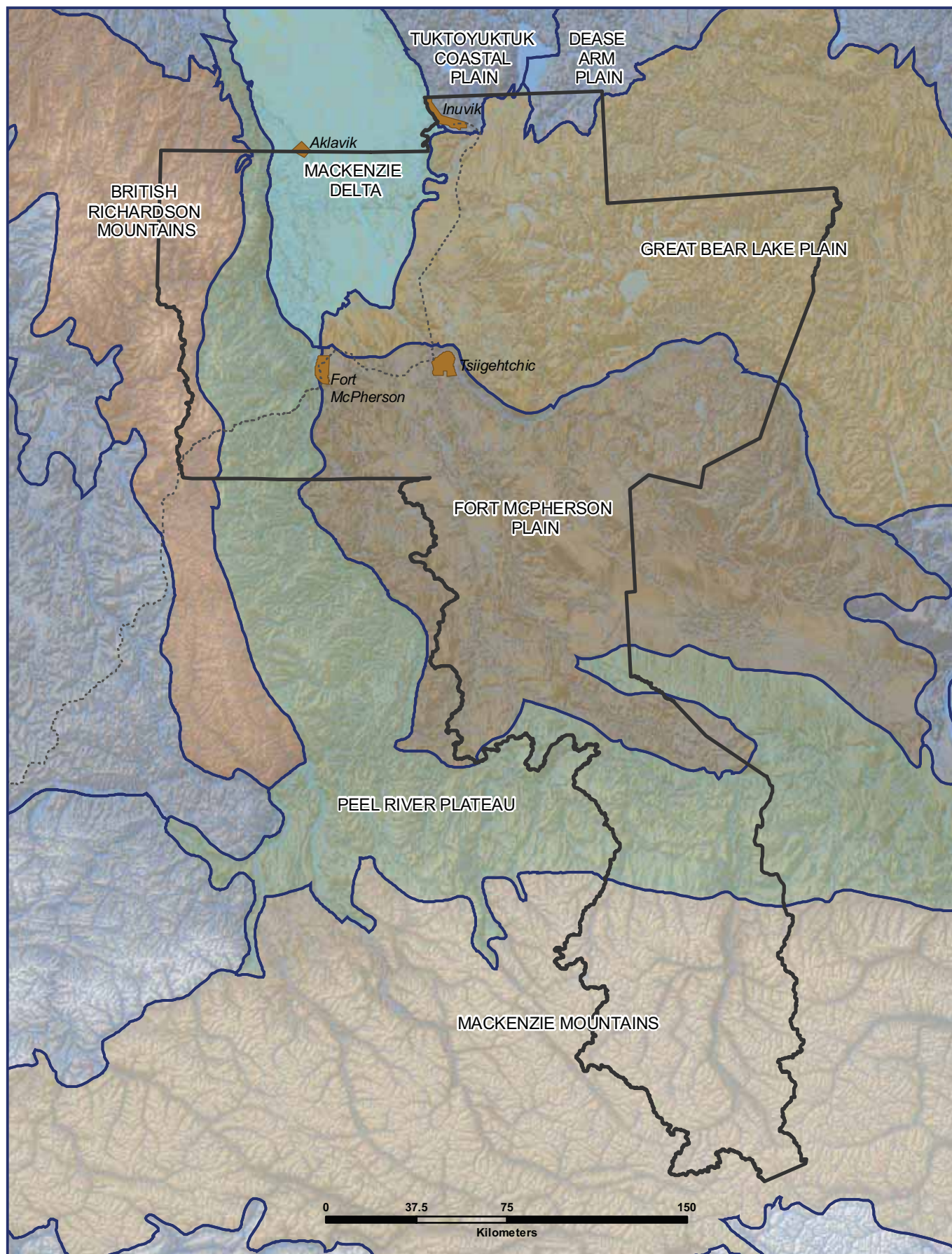
Gwich'in would not recognize most of the names associated with these ecoregions. They do not divide the land based solely on natural features but combine the natural landscape with cultural divisions. The English names now commonly used to describe the broadest landscapes in the Gwich'in Settlement Area 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.

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.

Figure 8: Ecoregions

2.3 Renewable Resources: Water, Wildlife, Forests and Tourism

2.3.1 Water

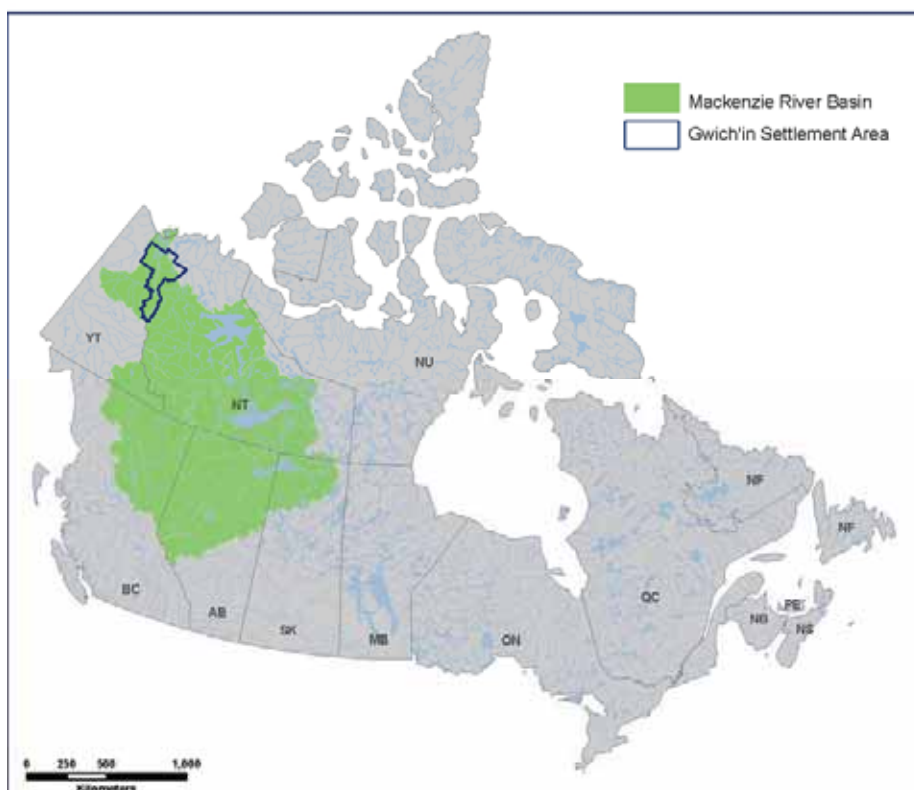
“Water is the lifeblood of the environment. Without water no living thing, plant or animal, can survive”.¹¹ Water is recognized as crucial to the environment and people of the Gwich'in Settlement Area.¹² It is integral to Gwich'in culture as it maintains wildlife and fish that are used in traditional 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 (see figure 9). Much of the water that reaches the Gwich'in Settlement Area has been used extensively by other groups in the Mackenzie River Basin.

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.

Figure 9: The Mackenzie River Basin within Canada



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.

Mammals important to the communities include Porcupine caribou, Bluenose caribou, Dall's sheep, grizzly bear, moose and furbearers in general. Waterfowl are also of importance to cultural activities in the Gwich'in Settlement Area. There are many fish species locally such as whitefish, inconnu and dolly varden char that are significant for traditional, commercial and recreational activities.

There are concerns with the size or distribution of the populations of some of the species in the Gwich'in Settlement Area. At the federal level, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) uses a process based on science, aboriginal traditional knowledge and community knowledge to assess the risk of extinction for wild species. Species identified by COSEWIC may then qualify for legal protection and recovery under the federal Species at Risk Act (SARA).¹³ The government of the Northwest Territories, as part of an accord regarding the implementation of the SARA, also has a role in monitoring, assessing, and reporting on the Territories' wild species. Regional organisations such as the Gwich'in Renewable Resources Board work with both levels of government on these activities.

The status of some of the species in the Gwich'in Settlement Area that are listed under this framework are summarised in the following table.

Figure 10: Species in the GSA listed under the Species at Risk Act ^{14,15}

Species of concern	COSEWIC	federal SARA	NWT SARA
Mammals			
Barren-ground caribou: Porcupine, Bluenose West, and Cape Bathurst herds	not listed	not listed	Sensitive
Woodland Caribou, boreal population	Threatened	Threatened	Sensitive
Woodland Caribou, northern mountain population	Special Concern	Special Concern	Secure
Wolverine	Special Concern	not listed	Sensitive
Fisher	not listed	not listed	Sensitive
Grizzly Bear	Special Concern	not listed	Sensitive
Birds			
Eskimo Curlew	Endangered	Endangered	At Risk
Short-eared Owl	Special Concern	Special Concern	Sensitive
Northern Pintail	not listed	not listed	Sensitive
Lesser Scaup	not listed	not listed	Sensitive

Brant Goose	not listed	not listed	Sensitive
Long Tailed Duck	not listed	not listed	Sensitive
Trumpeter Swan	not listed	not listed	Sensitive
Scoters (3 species)	not listed	not listed	Sensitive
Eider Ducks (2 species)	not listed	not listed	Sensitive
Peregrine Falcon (anatum)	Special Concern	Threatened	Sensitive
Peregrine Falcon (tundrius)	Special Concern	not listed	Sensitive
Fish			
Walleye ("Pickerel")	not listed	not listed	Sensitive
Dolly Varden	not listed	not listed	Sensitive
Inconnu (Coney)	not listed	not listed	Sensitive
Arctic Grayling	not listed	not listed	Sensitive

There is such concern over the barren ground caribou herds and dolly varden char that harvesting restrictions and stricter management policies are being implemented even though they are not ranked as a higher concern yet. The department of Environment and Natural Resources of the territorial government, the Gwich'in Renewable Resources Board, and community Renewable Resources Councils are involved in this process within the Gwich'in Settlement Area.

These conservation measures are not related to the type of land use permits, water licences, or other authorizations subject to the Gwich'in Land Use Plan so no issues of conformance arise. If an area of critical habitat were identified for protection under SARA in a general or special management use zone however, it would be considered as a non-conforming use because it restricts development in a multi-use zone. Since SARA restrictions are not applied lightly and uses a highly consultative process, the Board envisions an amendment or exception to the land use plan would be considered in a timely manner to address specific applications of SARA that might not conform to the Gwich'in Plan.

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. An example of events that draw tourists are the communities' spring festivals, Inuvik's Great Northern Arts Festival, and the Midway Lake Music Festival. Scenic attractions include the Mackenzie Delta, and the Mackenzie and Richardson Mountains. The Dempster Highway is another attraction unto itself. Not only is it very scenic and provides access to the Gwich'in Settlement area, but is considered by many tourists as a once in a lifetime experience to drive so far into the northern wilderness.

There are a few tour operators licenced to conduct business in the Gwich'in Settlement Area. Tourism is diversifying to include winter activities such as snowmobiling, dog team mushing, and cross country skiing tours. Facilities range from lookout sites, community parks and Territorial Parks.

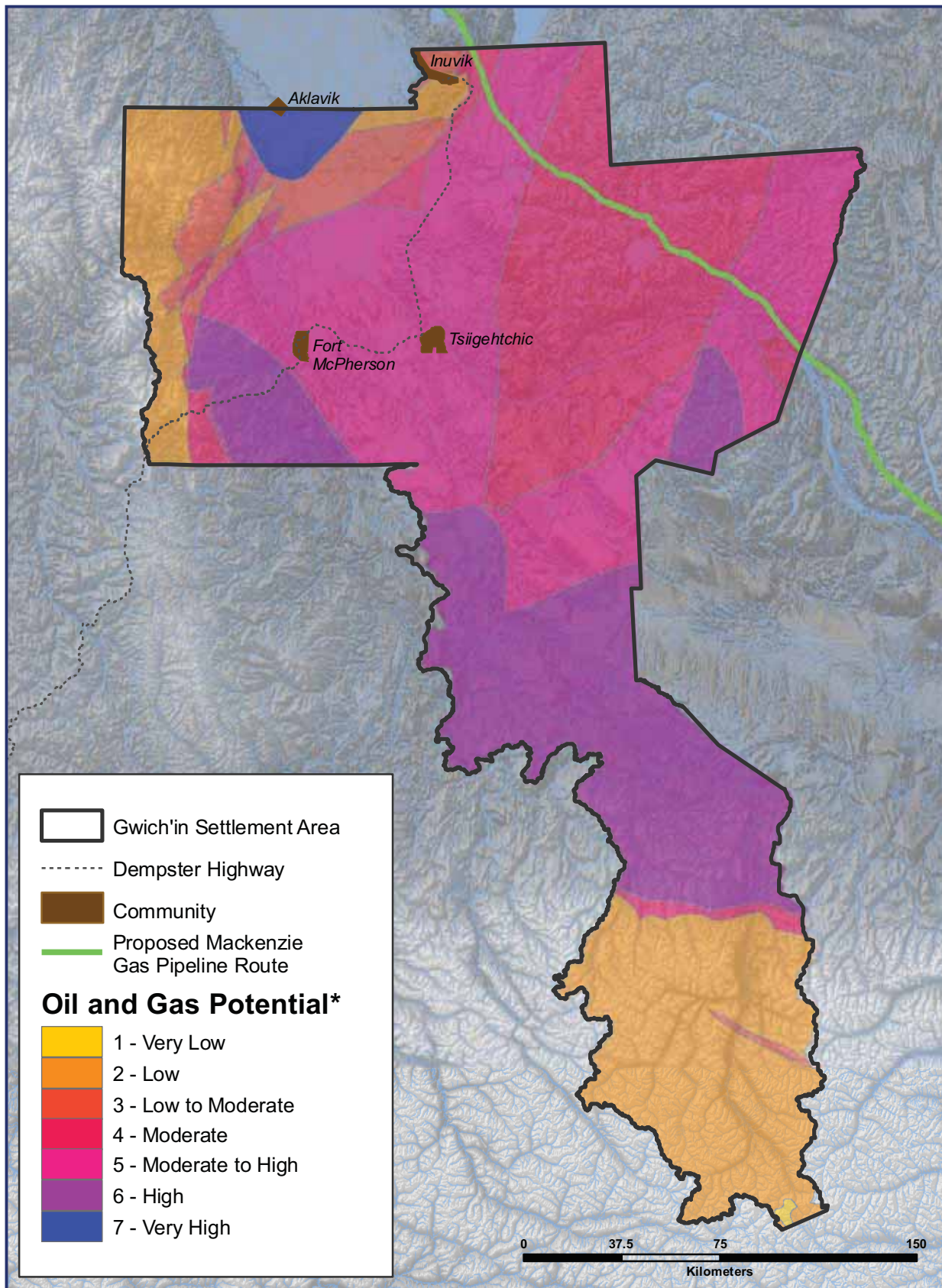
2.4 Non-Renewable Resources: Oil, Gas, Minerals, Sand, Gravel and Crushed Rock

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 11).

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.¹⁶ In the past, 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 corridors 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. At this time, the Mackenzie Gas Project is undergoing an environmental assessment for a proposal of a natural gas pipeline that would run north of the Mackenzie River to Norman Wells and then closely following the oil pipeline corridor from there into Alberta.

Figure 11: Oil and Gas Potential

* Gal, L.P. and Udell, A.J., 2005. Compiled Hydrocarbon Play Polygons for mainland Northwest Territories, ArcView .shp format files: Sahtu Settlement Area, Gwich'in Settlement Area, mainland Inuvialuit Settlement Region, Dehcho Territory; Northwest Territories, Canada; Northwest Territories Geoscience Office NWT Open Report 2005-004

2.4.2 Minerals

The mineral potential of the Gwich'in Settlement Area is thought to be concentrated in the Mackenzie Mountains and Richardson Mountains. In general, the Mackenzie Mountains have higher mineral potential than the Richardson Mountains. (see Figure 12)

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.¹⁷ 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. Diamond indicators have been found in the Gwich'in Settlement area, but so far a source for these materials has not been identified in the region.¹⁸

There are no active mines in the Gwich'in Settlement Area, but some prospecting and staking is taking place. This includes the headwaters of the Arctic Red River in the Mackenzie Mountains and a few places in the eastern portion of the Gwich'in Settlement Area.

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.

There are approximately 38 pits in the settlement area. Fifteen pits are being actively used, some just for stockpiling, with the rest inactive. Access to adequate sources of sand, gravel and crushed rock is important for the maintenance of the Dempster Highway and community infrastructure. (see Figure 13)

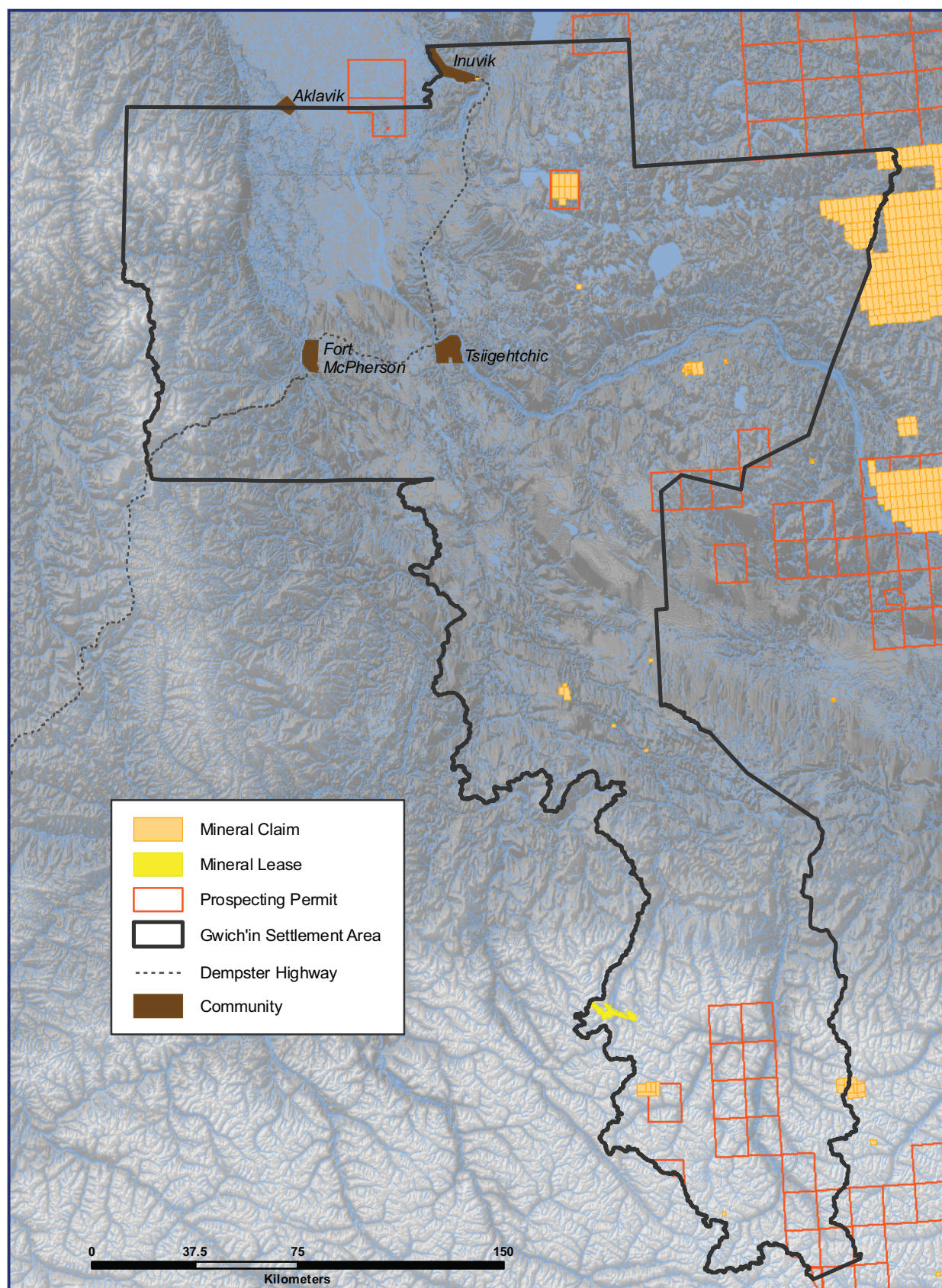
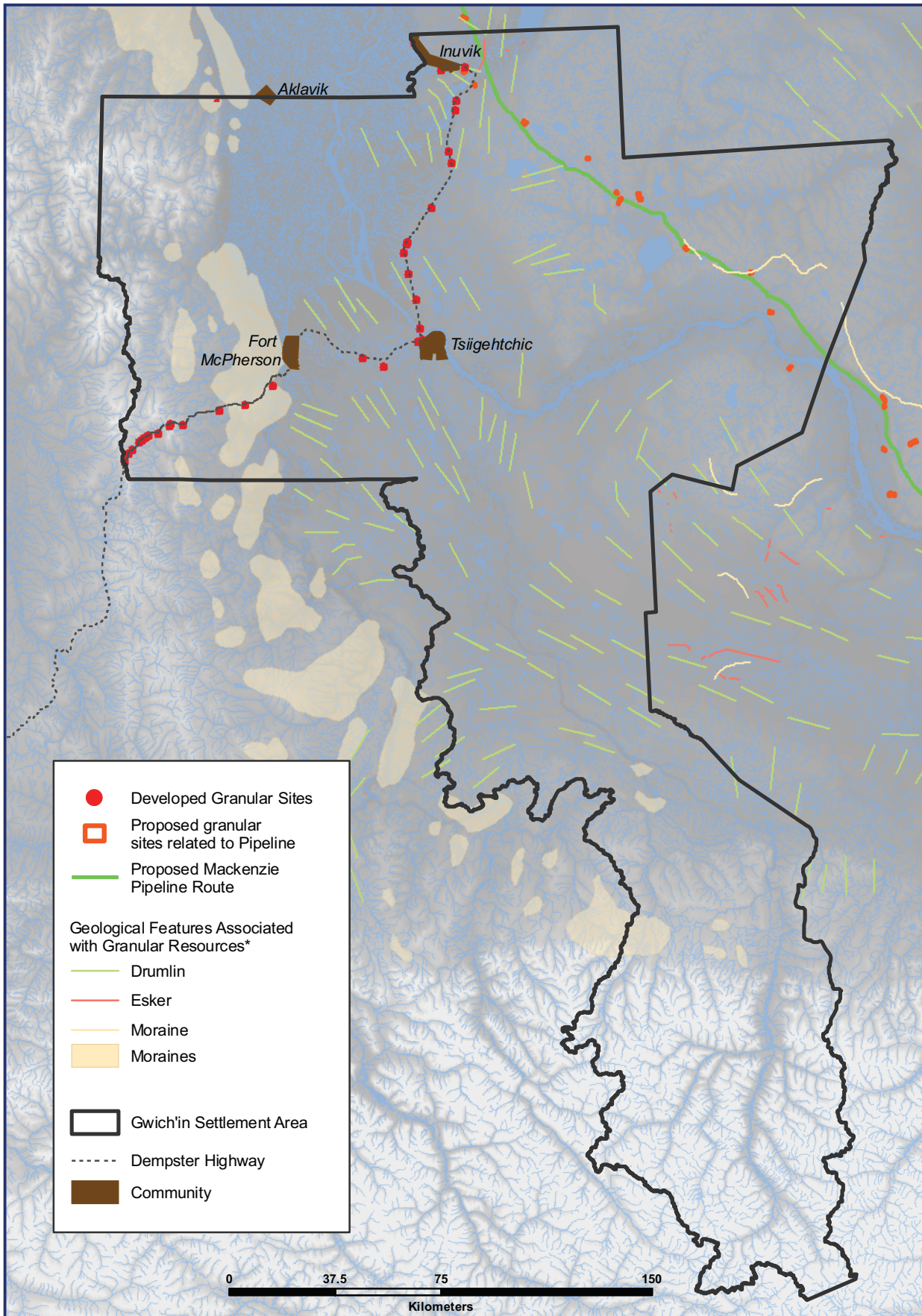
Figure 12: Mineral Tenure

Figure 13: Rock and Gravel

* Fulton, R.J., compiler
 1995: Surficial materials of Canada, Geological Survey of
 Canada, Map 1880A, scale 1:5 000 000

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 along the major waterways, boats, motorized land vehicles and aircraft. Goods and supplies are brought in by commercial aircraft, truck traffic, and barges.

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 roads created in the winter provide highway 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 primarily through telephone services and internet access in all communities. Cell phone service is limited to around the communities; it doesn't extend along the length of the Dempster highway. Satellite phones can be fairly reliable throughout the region with the right service provider, but are not commonly used because of the cost. Although maybe not used as much as they once were, bush radios are still an important part of communication for the area. They are an inexpensive way for people stay in touch while on the land.

Accessed through satellite feeds or the internet, there are no real limits to radio and television programs available to provide local, national and international news, and entertainment for the Gwich'in Settlement Area.

2.6 Existing Designated Areas

Several areas within the Gwich'in Settlement Area have legislated conservation related designations (see Figure 14).

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 Gwichya 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.

NORTHWEST TERRITORIES HISTORIC SITES

Nominations for the following sites have been made by the Gwich'in Social and Cultural Institute.¹⁹ If applied, this designation is commemorative only and will not provide legal protection. Regardless of any official designations, these sites still have archaeological and cultural values which should be respected. Sites within municipal boundaries have not been included in this list because the land use plan does not apply to municipal lands.

Knut Lang's Place

The heritage value of this site is associated with an important economic development phase of the Northwest Territories; the period when some independent traders such as Knut Lang worked with different local groups in supplying the global fur economy. This designation also commemorates a relationship of respect between non-Natives and the local Aboriginal populations. Knut operated his trading post from 1936 to 1964, and is remembered for his caring and generosity. More recently, the site has been used as a drug and alcohol program facility and a science camp.

Constable Millen's Cairn

A grey log pyramid marks the spot where RCMP Constable Edgar "Spike" Millen, who was in charge of the Arctic Red River Detachment at the time, was killed in the line of duty on the morning of January 30, 1932. As part of an RCMP search party, he was mortally wounded during an altercation with the man they were attempting to apprehend. That man was Albert Johnson, who was also known as "The Mad Trapper".

This historic site overlaps with conservation zoning in the Gwich'in Land Use Plan.

Nagwichoo Tshik (Mouth of the Peel Village)

Nagwichoo Tshik is associated with events that have shaped the history of the Northwest Territories. These are related to the fur trade and most particularly, the growth of muskrat trapping during the early twentieth century. The place is also representative of the Teet'it Gwich'in way of life and tradition, as it became a major fishing location for them during this period. The Mouth of the Peel is the only historic village still standing in the Gwich'in Settlement Region.

This historic site overlaps with heritage conservation zoning in the Gwich'in Land Use Plan.

Nataiinlaih (Eight Miles)

This place was the scene of several battles between the Teet'it Gwich'in and the Siglit during the early historic period. Over the years, the place developed into an important fishing village. Its existence is closely related to the establishment of Fort McPherson and the presence of the Hudson's Bay Company in the area. Today, the village is 'home' to many Teet'it Gwich'in elders who have established cabins and fish houses there and continue to live their traditional lifestyle.

This historic site overlaps with heritage conservation zoning in the Gwich'in Land Use Plan.

Kaii Luk Tshik (Travaillant Creek)

The site encompasses about 2.5 km² on the north shore of the Mackenzie River surrounding the mouth of Travaillant Creek. Khaii Luk Tshik was a thriving trading community during the early to mid twentieth century and in legendary times. It is the head of a traditional trail leading to the wintering country of the north. Physical records of the rich history and current use of the site include archaeological sites, buildings and graves.

This historic site is overlapped by conservation zoning in the Gwich'in Land Use Plan.

Teetshik Goghaa (Old Arctic Red)

In pre-contact times this site was a traditional fishing and gathering place for the Gwichya Gwich'in. It later became the site of one of the first Roman Catholic Missions in the vicinity. The most visible human features left today are the remains of an old stone fire place and several wooden grave markers that are recorded as an archaeological site.

This historic site overlaps with heritage conservation zoning in the Gwich'in Land Use Plan.

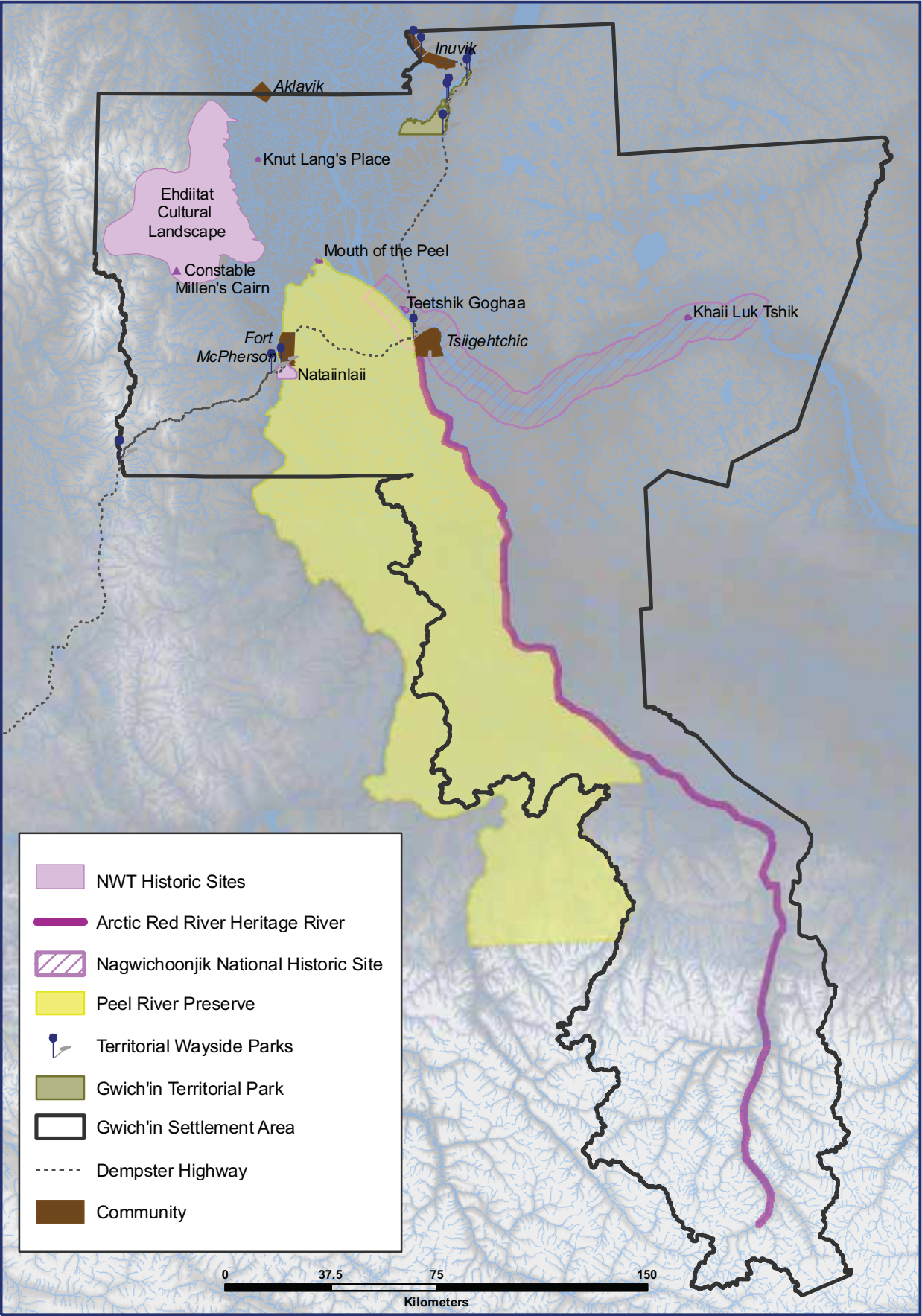
*Chigwaazraii, Sreih Nitsik, Ddhah Zhit Han and Eneekaii Han
(Black Mountain, Red Mountain, Rat River, and Husky Channel)*

This landscape encompasses several important cultural features. This landscape plays an important role traditionally and mythologically for the Ehdiitat Gwich'in and continues to be

used for subsistence fishing and hunting, as well as, recreation by Aklavik residents today. The modern and historic use of the area, tied together with trails, is culturally bound in a collection of stories and legends which all celebrate the unique relationship the Gwich'in have with this special landscape.

This historic site significantly overlaps with conservation zoning in the Gwich'in Land Use Plan.

Figure 14: Legislated Protected Areas



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. 2008. Summary of community statistics from 2007.
- 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)
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- ¹⁴ Government of Canada. 2008. Species at Risk Act: Public Registry. www.sararegistry.gc.ca, updated 02/01/2008. Accessed November 2009.
- ¹⁵ Working Group on the General Status of NWT Species. 2006. NWT Species 2006-2010 - General Status Ranks of Wild Species in the Northwest Territories. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.
- ¹⁶ Department of Indian Affairs and Northern Development, 1998, Comments on Preliminary Draft Land Use Plan
- ¹⁷ Department of Indian Affairs and Northern Development, 1998, Comments on Preliminary Draft Land Use Plan
- ¹⁸ Lariviere, J.M., 2010. Geological analysis and interpretation of regional stream sediment and water geochemical data from heavy mineral concentrates, silts, and waters, Travaillant Lake, Gwich'in Conservation Zones, Northwest Territories; Northwest Territories Geoscience Office, NWT Open File 2010-02, 36 p.
- ¹⁹ Prince of Wales Northern Heritage Centre. Cultural Places Program - Recommended Territorial Historic Sites. <http://pwnhc.learnnet.nt.ca/programs/historicplaces/index.asp>, accessed March 2010.