Appendix V6-3A

Hope Bay Belt Project:
2011 Socio-economic and Land Use Baseline Report

TMAC RESOURCES

Hope Bay Mining Limited

HOPE BAY BELT PROJECT
2011 Socio-economic and Land Use Baseline Report

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HOPE BAY BELT PROJECT

2011 SOCIO-ECONOMIC AND LAND USE BASELINE REPORT

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HOPE BAY BELT PROJECT
2011 SOCIO-ECONOMIC AND LAND USE BASELINE REPORT

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Glossary and Abbreviations

Glossary and Abbreviations

Terminology used in this document is defined where it is first used. The following list will assist readers who may choose to review only portions of the document.

AA	Alcoholics Anonymous
AANDC	Aboriginal Affairs and Northern Development Canada (formerly INAC)
ABE	Adult Basic Education
ATV	All-terrain Vehicle
B&E	Breaking and Entering
BC	British Columbia
CHARS	Canadian High Arctic Research Station
CHR	Community Health Representatives
CNGO	Canada-Nunavut Geoscience Office
Co-op	Co-operative
CPNP	Canadian Prenatal Program
CTS	Career and Technology Studies
CWB	Community Well-Being
DARE	Drug Abuse Resistance Education
DEW	Distant Early Warning
DFO	Fisheries and Oceans Canada
EDO	Economic Development Officer
EIS	Environmental Impact Statement
GDP	Gross Domestic Product
HBML	Hope Bay Mining Limited
HSP	Nunavut Harvester Support Program
HTO	Hunters and Trappers Organization
INAC	Indian and Northern Affairs Canada (currently known as AANDC)
Inuit	Aboriginal peoples of northern Canada and Greenland. In the context of Nunavut, those with beneficiary status under the Nunavut Land Claims Agreement (NLCA).
IOL	Inuit Owned Land. With respect to the Nunavut Land Claims Agreement (NLCA), lands that vest in a Designated Inuit Organization as Inuit Owned Land.
IBC	Inuit Broadcasting Corporation

Inuit Qaujimajatuqangit	"The traditional, current, and evolving body of Inuit values, beliefs, experience, perceptions, and knowledge regarding the environment, including land, water, wildlife and people, to the extent that people are part of the environment" (Qikiqtani Inuit Association 2009).
Inuit Qaujimaningit	"Inuit Traditional Knowledge and variations of Inuit Traditional Knowledge. Inuit epistemology relating to: Inuit societal values (including the legal obligations set out in the Nunavut Land Claims Agreement regarding Inuit participation, Inuit employment and training, etc.) and Inuit knowledge (both contemporary and traditional)" (Qikiqtani Inuit Association 2009).
KEDC	Kitikmeot Economic Development Commission
KIA	Kitikmeot Inuit Association
LSA	Local Study Area
NAC	Nunavut Arctic College
NBCC	Nunavut Business Credit Corporation
NDC	Nunavut Development Corporation
NDEDT	Nunavut Department of Economic Development and Transportation
NGO	Non-governmental Organization
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NLUP	Nunavut Land Use Plan
NPC	Nunavut Planning Commission
NOS	National Occupancy Standard
NSRT	Nunavut Surface Rights Tribunal
NSSI	Nunavut Sealift and Supply Incorporated
NTCL	Northern Transportation Company Limited
NTEP	Nunavut Teacher Education Program
NTI	Nunavut Tunngavik Incorporated
Nunavummiut	Residents of Nunavut
NWB	Nunavut Water Board
NWMB	Nunavut Wildlife Management Board
NWT	Northwest Territories
Primary industries	Industries which extract or harvest raw materials from nature, including mining, oil/gas, hunting, fishing, forestry, and agriculture.
RCMP	Royal Canadian Mounted Police
RIA	Regional Inuit Association
SAO	Senior Administrative Officer

Secondary industries	Manufacturing and construction industries, which create finished products from the materials produced by primary industries.
Service sector	The provision of various services, including government, education, health, social, and trade, among others. Also called the tertiary industry in relation to primary (i.e., natural resources) and secondary (i.e., manufacturing) industries.
SME	Small and Medium-sized Enterprises
STI	Sexually Transmitted Infection
Subsistence economy	Non-commercial hunting, fishing, trapping and gathering that provides food and other goods for individuals, households and communities.
TLUR	Territorial Land Use Regulations
Wage economy	Component of livelihood provided through engagement in the labour force and receipt of monetary compensation.
WKRLUP	West Kitikmeot Regional Land Use Plan

1. Introduction

1. Introduction

1.1 OVERVIEW

The Hope Bay Belt property is located southwest of Cambridge Bay, Nunavut, on the south shore of Melville Sound (Figure 1.1-1). The property consists of an approximately 80 km long greenstone belt running in a north-south direction, with three main gold deposit areas. The Doris and Madrid deposits are located in the northern portion of the belt, and the Boston deposit is located in the southern end. The northern portion of the property consists of several watershed systems that drain into Roberts Bay and a large river (Koignuk River) that drains into Hope Bay. Watersheds in the southern portion of the belt ultimately drain into the upper Koignuk River, which drains into Hope Bay.

Hope Bay Mining Limited (HBML) is proceeding with the development of the Doris North Project. Required licences and permits are in place for the development of the Doris North Gold Mine, and construction of the project commenced in 2010.

HBML plans to develop additional deposits in the belt, and planning for this project development, named the Phase 2 Project, has commenced. Baseline studies to support the permitting of the Phase 2 Project were carried out in 2009 and were continued in 2010 and 2011. This report presents the results from the 2011 socio-economic and land use baseline program for the Phase 2 Project (the Project).

1.2 STUDY OBJECTIVES

The objective of this socio-economic and land use baseline study is to provide the background information needed to assist in the completion of a socio-economic impact assessment of the Project. This is achieved with development of a focused profile that describes important economic, social, and cultural aspects for the defined study areas (Section 1.3).

This study also aims to include socio-economic and land use baseline information that is identified as important by community stakeholders based on their local values and concerns. This may include opinions and information regarding the current state of a community, needs and challenges, and plans for future economic and community development. Specific concerns or ideas regarding the Project may also be expressed by local residents involved in the study and will be considered as part of the effects assessment at later work stages. An effects assessment is a process for identifying, predicting, evaluation, and mitigating the relevant effects of proposed projects and physical activities prior to major decisions and commitments being made (NIRB 2007).

1.3 SOCIO-ECONOMIC AND LAND USE STUDY AREAS

Socio-economic information is presented for three different spatial scales (Figure 1.3-1). At the broadest scale is the Nunavut Territory, for which the focus is primarily on population and demographics, governance, and the economy; this baseline information will support the assessment of socio-economic effects for Nunavut as a whole.

Next, at the regional level, the Kitikmeot Region is discussed with a focus on population and demographics, governance, regional planning, and the economy, including business and industry characteristics. The Kitikmeot region is located in the most western part of the Nunavut Territory. It covers an area of approximately 446,728 km^2, which includes the western and northern portions of the Nunavut mainland, Prince of Wales Island, King William Island, Somerset Island, and the southern and eastern parts of Victoria Island.

Figure 1.1-1

Hope Bay Belt Project Location

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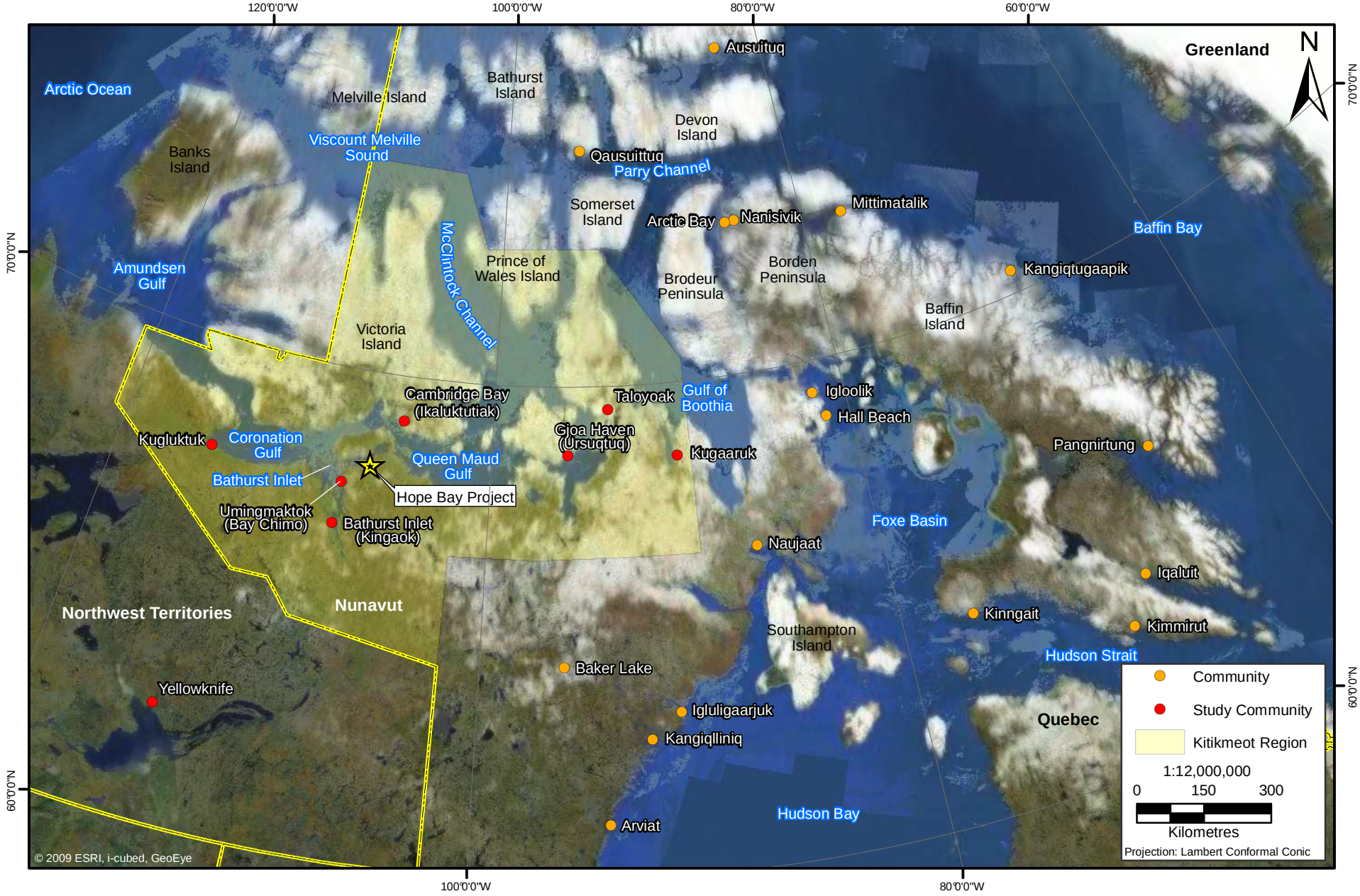

Figure 1.3-1

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Socio-Economic Study Area

Figure 1.3-1

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The closest settlements to the Project (Figure 1.3-1) are Umingmaktok, also known as Bay Chimo, (~70 km) and Bathurst Inlet, also known as Kingaok (~150 km). The communities of Cambridge Bay(~130 km) and Kugluktuk, previously known as Coppermine, (~350 km) are the closest major regional centres. Cambridge Bay is traditionally known as "Ikaluktutiak or "Iqaluktuttiaq", which means "good fishing place". Cambridge Bay is the largest community and the main economic and transportation hub for the Kitikmeot Region. Other Kitikmeot communities are at a greater distance from the Project, including Gjoa Haven, also known as Ursuqtuq (~445 km), Taloyoak, previously known as Spence Bay (~550 km), and Kugaaruk, previously known as Pelly Bay (~690 km).

At the local level, socio-economic information about each of the seven communities of the Kitikmeot Region is presented, including: Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk, Bathurst Inlet, and Umingmaktok. The local level includes a more detailed profile of the study communities, including existing socio-economic issues and challenges. Conditions examined in more detail include community demographics, education and training, livelihoods, economic development, community infrastructure and services, health and well-being, culture, and governance. Based on the direction of the Kitikmeot Inuit Association (KIA) and the Nunavut Impact Review Board (NIRB), all seven Kitikmeot communities are included in the study. The inclusion of all seven Kitikmeot communities supports the goal of having direct employment and business benefits distributed amongst Nunavummiut throughout the Kitikmeot Region.

The population and economy of Yellowknife, NWT, is also briefly described because of its role as a supply and service centre for northern Canada. It is recognized that residents of Nunavut communities travel to Yellowknife for work and to access the services provided. Because of these connections, the economy of Yellowknife is important to describe.

With respect to land use, Nunavut and the Kitikmeot Region are examined in relation to territory and region-wide land management, land tenure, land use characteristics and trends, and planning initiatives.

The land use Local Study Area (LSA; Figure 1.3-2) is defined as an area that encompasses the Project and is consistent with the widest boundary of the regional wildlife, fisheries, and terrestrial study areas defined for those baseline studies. The need for consistency of the boundary with these biophysical study areas is due to the strong link between these biophysical components and land-based activities and values. This approach recognizes the relationship between the environment (e.g., habitat, fish, wildlife, and vegetation) and the people who use the land and rely on its resources. This approach also recognizes that potential Project effects may extend beyond the physical footprint through human use of wildlife, vegetation, fish, and other biological resources. Land use research also included an exploration of activities within marine waters, from Roberts Bay through Melville Sound, to where the anticipated Project-related shipping would meet the main shipping lane in the Coronation Gulf.

The land use baseline research identifies existing land uses, users, values, and activities associated with the land and natural resources. This includes both subsistence activities (e.g., hunting, trapping, fishing, and gathering) and commercial activities (e.g., mining, tourism). The land use description focuses on existing, contemporary use by people, communities, and companies who use the local study area, including residents of the nearest communities of Umingmaktok, Bathurst Inlet, Cambridge Bay, and Kugluktuk. The importance of traditional activities is reflected in contemporary land and resource use and management in the Kitikmeot Region. This, most notably includes, hunting, trapping, and fishing. In addition, non-traditional activities are also of increasing importance, including mining and mineral exploration and tourism.

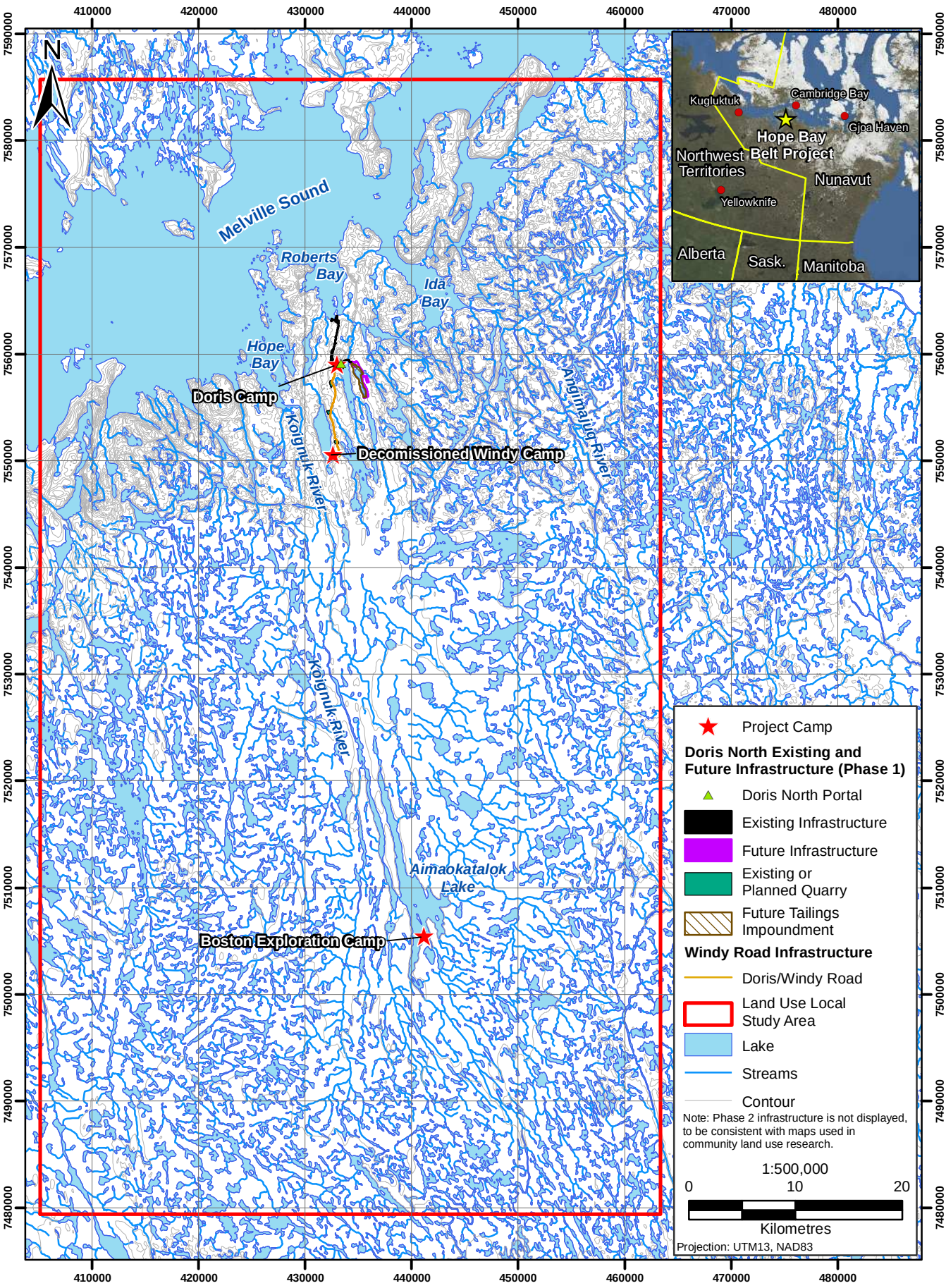

Figure 1.3-2

Land Use Local Study Area

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1.4 METHOD

Baseline information was collected through a method that relied on both desk- and community-based research. Desk-based research provided an initial base of information that was, in turn, augmented by the results of community-based research. Community-based research was important to confirm desk-based research results, identify other available data and documents, provide additional information, and provide local context. Throughout the research process, information from different sources was triangulated and integrated, where feasible, to provide a more complete description of existing baseline conditions.

1.4.1 Desk-based Research

Desk-based research consisted of document and database review to identify and compile available information in order to characterize socio-economic conditions and land use. Initially, an internet and bibliographic search was completed to identify potential information sources. The identified sources were then reviewed and applicable information extracted and compiled. Accessed sources included publically available statistics from government agencies, government reports, Inuit organization and co-management organization reports, private sector and non-government organization (NGO) reports, academic literature, and internet publications.

1.4.2 Community-based Research

Community-based research consisted of site visits and the completion of interviews with key informants from each study community. A focus group session was also held with land users from Umingmaktok, the community closest to the Project location. Key informants are defined as individuals with specific knowledge and experience concerning a particular socio-economic or land use component because of their professional capacity and/or role in the community. Community visits to conduct interviews were conducted during January and February of 2011 in Cambridge Bay, Kugluktuk, Taloyoak, Gjoa Haven, and Kugaaruk, with a second visit to Cambridge Bay in November 2011 The interviews and focus group were completed with approximately 70 key informants.

Key informants included government representatives, service providers, business leaders, and other organization representatives. Representation was provided across a number of areas: local and regional governance, economic development, education and training, health and well-being, housing, safety and protection services, planning and resource management, hunting and trapping, and guide outfitting. A list of the organizations interviewed is provided in Table 1.4-1.

Most interviews were conducted in-person, while a small number were conducted by telephone and were supplemented with email and fax correspondence. A semi-structured interview guide that was tailored for each major topic area and specifically targeted the interviewee's area of expertise was developed. Interview participants were initially provided with an overview of the Project and the purpose of the baseline study, and they were informed of how the information that they provided would be used. Before beginning interviews, participants were provided with a consent form that they were asked to complete to ensure that they had a thorough understanding of their rights with respect to participating in the interview and provided their consent regarding how the information could be used.

The focus group session with land users from Umingmaktok was held over two hours on November 16, 2011, in Cambridge Bay. The session was attended by five elders and one younger hunter. The participants had extensive knowledge of the land use LSA and surrounding area. An interpreter attended the session as translation was required for some participants. The discussion followed questions in a semi-structured interview guide. As per with the interviews, participants completed a consent form, and were informed of the purpose of the baseline study and how the information that they provided would be used.

Table 1.4-1. Representation for Key Informant Interviews

Area	Organization
Governance	Hamlet Administration
Economic Development	Hamlet Economic Development Nunavut Economic Development and Transportation Kitikmeot Economic Development Commission Community Futures Local Businesses
Education and Training	Nunavut Arctic College Kitikmeot Economic Development Commission Hamlet High Schools
Health and Well-being	Nunavut Health and Social Services Mental Health Services Community Health Community Justice Community Wellness Community Recreation
Housing	Hamlet Housing Associations or Authority
Safety and Protection	RCMP
Planning and Resource Management	Nunavut Community and Government Services Nunavut Environment Nunavut Planning Commission
Hunting and Trapping	Hunters and Trappers Organizations Inuit local land users
Guide Outfitting	Hunters and Trappers Organizations Lodges Guide Outfitting Businesses

During the land use interviews and focus group session, resource mapping was also conducted whereby interview participants were shown maps of the land use LSA (as in Figure 1.3-2, less camp locations) and nearby marine waters and asked to describe and identify the location of known land use activities. Existing and future Phase 1 infrastructure for the Doris North Project was included on the maps as a geographic reference point. Phase 2 planned infrastructure was not included on maps so as not to distract participants from the focus of the interviews on current land use.

During interviews, written summary notes were taken and were later transcribed in a computer document file format. Sessions were also audio-recorded with the consent of the participant, and the recording was later used to verify written notes. Interview results were provided to each participant as requested for their information and review. Any errors or omissions that were brought to the researchers' attention were rectified, as appropriate.

1.4.3 Information Caveats and Limitations

The limitations of the baseline information are dependent on the data collection, analysis, and presentation methods used. For secondary information limitations vary by source. For example, a key source of socio-economic information is the 2006 Census of Canada. The main caveat associated with this information is that data were collected in 2006 and, therefore, do not capture any changes that have occurred since that time. For small populations data may be supressed to protect confidentiality, and, because of rounding error, when data are reported they may be misleading. There are a number

of more minor technical caveats and limitations associated with using census information, as there are with the use of any secondary data sources.

Key informant interviews and a focus group session were the primary source of community-based research information. The main caveat or limitation associated with a semi-structured interview method is the potential for bias in the information provided due to the selection of interviewees, framing of questions, and the potential for limited or strategic answers. Given the scarcity of secondary information on local land use activities, the description of baseline conditions was particularly dependent on interview information and was limited by the representation and extent of information provided by interview participants. However, best practices in social analysis were employed in the study design to minimize any bias.

Bathurst Inlet and Umingmaktok are small communities situated on the shores of Bathurst Inlet (Figure 1.3-1). At present, these communities are mostly seasonally occupied, although they have supported small year-round populations in recent years. Because of the small size of these communities, a limited amount of secondary socio-economic information is available. Thus, for Bathurst Inlet and Umingmaktok, this baseline study relies primarily on information from key informant interviews and the land use focus group session.

Regional and territorial land use planning information was not complete at the time of writing. The Kitikmeot Land Use Plan was only completed to draft form and the Nunavut Land Use Plan is not yet publically available. For this baseline report, the land use planning direction was described to the greatest extent possible from publically available documents.

While “outpost camps” have specific meaning under the NCLA, at the time of writing there was no list of officially designated outpost camps as identified by government. Which specific sites or camps are to be described as outpost camps is uncertain. Therefore, in this report it is noted if a site was referred to as an outpost camp by local land users, but otherwise such sites are described by the more general term “camps”. Use of the term outpost camp in this report is not necessarily equivalent to its use within the NCLA.

1.5 REPORT OVERVIEW

Chapter 2 of this report introduces the socio-economic and land use components that have been identified for the baseline study. Important information elements, indicators that are to be used to provide a description and characterization of those elements, and the key information sources are outlined. An overview description of the study area, including Nunavut, the Kitikmeot Region, and the study communities, is presented in Chapter 3. Chapters 4 to 14 provide baseline information on each identified socio-economic and land use component. The summary and conclusions are presented in Chapter 15.

2. Socio-economic and Land Use Components

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2. Socio-economic and Land Use Components

Socio-economic and land use components for the study have been identified through a review of completed environmental assessments of previous projects in Nunavut (i.e., Doris North, High Lake, and Meadowbank), recent government environmental assessment guidelines for other mine projects in Nunavut (i.e., Mary River), the values and concerns local community stakeholders expressed during field studies, consideration of the existing socio-economic conditions within the Kitikmeot Region, and professional judgement. The components include:

- community demographics;
- education and training;
- livelihood;
- economic development;
- community infrastructure and public services;
- health and community well-being;
- culture;
- governance and government revenues;
- land use planning and designation;
- subsistence and cultural land use; and
- commercial and industrial land use.

The following sections describe the indicators that were used to help provide a description and characterization of each of those elements and the main information sources that were relied upon.

2.1 COMMUNITY DEMOGRAPHICS

Community demographics provide an initial characterization of the composition of the Kitikmeot communities. This includes population levels and age distribution (Table 2.1-1). Descriptions of social and cultural aspects of the population are addressed in other sections.

Table 2.1-1. Community Demographics Information

Information Element	Indicators	Primary Information Sources
Population level	• Total population • Aboriginal population	• Statistics Canada (2006 Census) • Nunavut Bureau of Statistics
Age	• Age distribution • Median age	• Statistics Canada (2006 Census) • Nunavut Bureau of Statistics

2.2 EDUCATION AND TRAINING

This component describes the current education and skill levels of the Kitikmeot communities. It also describes the experience of the local labour force, available education facilities, training programs, and enrolments (Table 2.2-1).

Table 2.2-1. Education and Training Information

Information Element	Indicators	Primary Information Sources
Educational attainment	• Highest level of attainment by type • High school completion rates	• Statistics Canada (2006 Census) • Interviews
Labour force experience	• Total experienced labour force by occupation • Total experienced labour force by industry	• Statistics Canada (2006 Census) • Interviews
Education facilities and programs	• Secondary education facilities, enrolment, and programs • Post-secondary education facilities and programs • Program availability and enrolment	• Nunavut Department of Education • Nunavut Arctic College • Interviews

2.3 LIVELIHOOD

Livelihood is an individual's and household's ability to provide for themselves and their family. Livelihood can include a range of activities, from formal employment in the wage economy to a subsistence lifestyle. The livelihoods of many Nunavummiut are supported by both wage income and subsistence, to varying degrees. The livelihood section examines income and the involvement of a community's labour force in the wage economy and in subsistence activities (Table 2.3-1).

Table 2.3-1. Livelihood Information

Information Element	Indicators	Primary Information Sources
Labour force	• Potential and active labour force • Participation rate • Number unemployed • Unemployment rate	• Statistics Canada • Nunavut Bureau of Statistics
Income	• Median individual and household income • Earnings • Sources of income	• Statistics Canada (2006 Census) • Nunavut Bureau of Statistics
Subsistence economy	• Community participation in harvesting • Household reliance on subsistence economy • Community use of harvest	• Statistics Canada • Nunavut Wildlife Harvest Study • Interviews

2.4 ECONOMIC DEVELOPMENT

Economic development looks at the local business environment and support programs and initiatives in the Kitikmeot communities. This includes an examination of existing business types and growth capacity, economic development plans and priorities, and support available to local businesses and industry (Table 2.4-1).

Table 2.4-1. Economic Development Information

Information Element	Indicators	Information Sources
Business	• Business types and size by community (diversity) • Business growth capability	• Nunavut Tunngavik Inc. (NTI) • Interviews

(continued)

Table 2.4-1. Economic Development Information (completed)

Information Element	Indicators	Information Sources
Directions for economic development	• Economic development plans and priorities • Economic development and business support programs • Economic development initiatives	• Community Economic Development Plans • Nunavut Tunngavik Inc. • Kitikmeot Economic Development Commission (KEDC) • Nunavut Department of Economic Development and Transportation (NDEDT) • Interviews

2.5 COMMUNITY INFRASTRUCTURE AND PUBLIC SERVICES

Community infrastructure and public services describes the current conditions of local infrastructure and services available within Kitikmeot communities. This includes the conditions of local housing, health care and social services, safety and protection services, and community facilities and infrastructure (Table 2.5-1).

Table 2.5-1. Community Infrastructure and Public Services Information

Information Element	Indicators	Information Sources
Housing	• Number of dwellings • Housing tenure (owned, public, government, private market rental) • Proportion of houses classified as crowded • Number of applicants waiting for public housing • Public housing deficit	• Nunavut Housing Needs Survey • Nunavut Housing Corporation • Statistics Canada • Interviews • Field study
Health care and social services	• Medical infrastructure and service provision • Health care staffing • Health care programming	• Nunavut Department of Health and Social Services • Interviews • Field study
Safety and protection services	• RCMP staffing and equipment • Fire protection	• Interviews • Field study
Community facilities and infrastructure	• Public facilities and infrastructure by type and community	• Interviews • Field study

2.6 HEALTH AND COMMUNITY WELL-BEING

Health and community well-being acknowledges the aspects that are necessary to establish and maintain a high level of wellness for community members. This includes a wide variety of considerations. Information used to describe conditions for the baseline study comprises various aspects of health, crime, and community well-being, including the provision of wellness programs (Table 2.6-1).

2.7 CULTURE

Culture encompasses aspects of knowledge, belief systems, values, practices, and traditions. It is a complex concept that can be difficult to characterize. The strength and sustainability of Inuit culture is recognized to be an important socio-economic component. Key elements include cultural philosophy and world view, language, land use and country foods, and cultural knowledge and education (Table 2.7-1).

Table 2.6-1. Health and Community Well-being Information

Information Element	Indicators	Information Sources
Health	• Health status • Health centre utilization • Suicide	• Inuit Tuttarvingat • Nunavut Department of Health and Social Services • Nunavut Inuit Health Survey • Statistics Canada • Haggarty et al. (2008) • Hicks (2009)
Crime	• Crime rates, by type of offence	• Nunavut Bureau of Statistics
Well-being	• Community well-being index • Wellness programs	• Aboriginal Affairs and Northern Development Canada (AANDC) • Interviews • Field study

Table 2.7-1. Culture Information

Information Element	Indicators	Information Sources
Cultural philosophy and world view	• Philosophical concepts and principles	• Inuit Qaujimajatuqanginnut Task Force (2002)
Language	• Mother tongue • Language spoken most often at home • Ability to speak Inuktitut or Inuinnaqtun	• Statistics Canada (2006 Census) • Nunavut Bureau of Statistics • Nunavut Department of Culture, Language, Elders and Youth • Interviews
Land use and country foods	• Rate of participation in country foods harvests • Country foods consumption	• Nunavut Harvest Study (NWMB 2004) • Interviews • Field study
Cultural knowledge and education	• Land use knowledge and skill base • Transfer of traditional knowledge to youth	• Nunavut Department of Culture, Language, Elders, and Youth • Interviews • Field Study

2.8 GOVERNANCE AND GOVERNMENT REVENUES

Institutions and governance systems are critical to the overall functioning of society and the provision of public goods and services. This includes territorial and hamlet governance. Government revenues derived from personal income taxes, corporate taxes, indirect taxes (including sales tax), commodity taxes and royalties, as well as other sources, provide the means to support government (Table 2.8-1).

2.9 LAND USE PLANNING AND DESIGNATION

The land management regime is considered in this baseline, as it relates to land use planning processes and initiatives, the establishment and management of land title and tenure (including Inuit Owned Land and Crown land), and designated parks and protected areas (Table 2.9-1). Land use planning and designation is important because it provides a basis for managing the allocation and use of land in support of socio-economic development and cultural sustainability.

Table 2.8-1. Governance and Government Revenues Information

Information Element	Indicators	Information Sources
Territorial governance	• Government structure and function	• Government of Nunavut (various departments) • Inuit organizations (various)
Hamlet governance	• Government structure and function • Community planning	• Community plans • Interviews
Government budgets	• Government revenues and expenditures	• Statistics Canada • Government of Nunavut

Table 2.9-1. Land Use Management Information

Information Element	Indicators	Information Sources
Land use planning	• Characteristics of land use planning initiatives • Stated land use plan principles, priorities, and restrictions	• Nunavut Planning Commission
Land title and tenure	• Inuit Owned Land • Crown land	• Nunavut Tunngavik Inc. • AANDC
Parks and protected areas	• Location and type of parks and protected areas	• Nunavut Environment • Commission of Environmental Cooperation • Nunavut Planning Commission

2.10 SUBSISTENCE AND CULTURAL LAND USE

Inuit cultural, spiritual, and traditional values are intimately connected with the land. The description of land use activities includes hunting and trapping, fishing, cabins, camps, travel routes and harvesting methods (Table 2.10-1). The focus of the characterization of subsistence and cultural land use is on activities within and in the vicinity of the land use LSA (Figure 1.3-2).

Table 2.10-1. Subsistence and Cultural Land Use Information

Information Element	Indicators	Information Sources
Land use values	• Cultural, spiritual, and traditional values of land use	• Qualitative description based on published documentation and information provided from interviews
Land use activities	• Hunting and trapping • Fishing • Cabins and camps • Travel routes and methods to access the land	• Nunavut Harvest Study (NWMB 2004) • Field Study • Interviews

2.11 COMMERCIAL AND INDUSTRIAL LAND USE

The description of commercial and industrial land use includes commercial food harvests, sport hunting, outdoor tourism and recreation, industrial land use, and transportation and shipping (Table 2.11-1). The description of Industrial land also incorporates mineral exploration and mine development, as well as the presence of contaminated sites and reclamation activities. The focus of the characterization of commercial and industrial land use is on activities within and in the vicinity of the land use LSA (Figure 1.3-2).

Table 2.11-1. Commercial and Industrial Land Use Information

Information Element	Indicators	Information Sources
Commercial food harvest	• Description of commercial operations and activities	• Nunavut Planning Commission • Interviews • Field study
Sport Hunting	• Description of guide outfitting operations and activities	• Interviews • Field study
Outdoor tourism and recreation	• Lodges • Tourism companies • Tourism opportunities	• Interviews • Field Study
Industrial land use	• Mine development and mineral exploration • Oil and gas exploration and development • Contaminated sites and reclamation	• AANDC • Nunavut Tunngavik Inc. • Nunavut Geoscience • Interviews • Field study
Transportation and shipping	• Marine transportation and shipping routes	• Nunavut Transportation Company Ltd. • Nunavut Sealink and Supply Inc. • Interviews • Field study

3. Area Overview

3. Area Overview

3.1 NUNAVUT

3.1.1 History and Context

Nunavut – "our land" in the Inuktitut language - was formally established on April 1, 1999 when it separated from the Northwest Territories, in accordance with the provision of the *Nunavut Land Claims Agreement Act* (1993b) and the *Nunavut Act* (1993a).

The Nunavut Land Claims Agreement (NLCA) established a set of collective rights exercised by Inuit beneficiaries. Under the NLCA, Inuit surrendered their Aboriginal claims, rights, and title to lands and waters in exchange for the rights and benefits provided in the agreement. The NLCA covers an area of approximately 1,800,000 km^2, including 356,000 km^2 of surface Inuit Owned Land (IOL), of which approximately 10% includes mineral rights.

Nunavut encompasses a major proportion of Northern Canada and most of the Canadian Arctic Archipelago. It is the largest of Canada's provinces and territories, yet comprises less than 0.1% of the country's population (Statistics Canada 2010). Most of the Nunavut population is Aboriginal, the vast majority of which are Inuit (more than 84% of the total population in the territory; Statistics Canada 2007).

Nunavut is characteristically remote. Communities within the territory are generally isolated from one another, and transportation and communication options are limited. There are no roads into Nunavut or roads connecting the communities within Nunavut. Air travel is the main means of inter-community travel. Communities can also be reached by sea during an approximately two-month summer window.

Nunavut imports most of its consumer goods such as fuel, food, clothing, building materials, machinery, and equipment. Exports include precious metals (gold), tourism, fish and fur products, and arts and crafts, but these products represent a relatively small proportion of the Nunavut economy. The territory's economy is highly dependent on the public sector.

3.1.2 Population

Nunavut had an estimated population of 33,200 in 2010, 10,500 (31.5%) of whom were under the age of 14, with 21,700 people (65.4%) between 15 and 64, and 1,000 (3%) 65 or above (Statistics Canada 2010). Slightly more than half of Nunavut's population is male (51.7%).

The average household size in Nunavut is relatively large: 3.7 people per household as of the 2006 Census versus the Canadian average of 2.5 people per household (Statistics Canada 2007). Household incomes are relatively high, with a 2005 median household income in Nunavut of approximately $60,221 in 2005 compared to the Canadian average of $53,634 (Statistics Canada 2007). However, this statistic is partially offset by the relative high costs of living in the North.

In Nunavut's labour force of approximately 11,700 people, the employment rate was 55.7% in 2010, an increase from 53.5% the previous year, but still below the national average of 61.6% (Nunavut Bureau of Statistics 2011a). Only one other province in Canada (Newfoundland and Labrador) had a lower employment rate. Unemployment also increased, mainly because more people entered the labour force looking for work; in 2010, the unemployment rate was estimated at 15%, compared to 12.6% the previous

year.[1] Unemployment among the Inuit population (20.5%) outstripped the territory's average in 2010, an increase from 16.9% in 2009 (Nunavut Bureau of Statistics 2011a).

3.1.3 Governance

Nunavut is governed by an elected legislative assembly of 19 members, who select a government leader and ministers. The capital city is Iqaluit, located on Baffin Island on the shore of Frobisher Bay. The government has ten departments that are responsible for the development and delivery of policy and programs. Departmental officials take policy direction from their respective deputy ministers, who serve as the departments' chief executives.

The cabinet has eight members; each cabinet minister, including the premier, is responsible for multiple portfolios. The government also includes public agencies such as the Nunavut Arctic College (NAC) and government corporations devoted to business credit, public development, housing, and energy. Further information on governance is provided in Chapter 11.

3.1.4 Economy

The service sector is the main component of the territorial economy. In 2009, it contributed to approximately 80% of the territorial Gross Domestic Product (GDP), whereas the goods sector represented only about 20% of Nunavut's GDP (Table 3.1-1; Nunavut Bureau of Statistics 2010d).

Table 3.1-1. Main Industries' Contribution to Nunavut Economy

Sector	2008 GDP by Industry (million $)	2009 GDP by Industry (million $)	2009 Share of Total GDP (%)
Goods sector			
Agriculture, forestry, fishing, and hunting	2.3	2.0	0.2%
Mining and oil and gas extraction	14.1	18.4	1.7%
Utilities	19.9	20.6	1.9%
Construction	261.2	170.5	15.8%
Manufacturing	2.1	1.6	0.1%
Service sector			
Wholesale trade	18.4	16.4	1.5%
Retail trade	52.7	54.3	5.0%
Transportation and warehousing	18.6	18.6	1.7%
Information and cultural industries	40.5	41.1	3.8%
Finance and insurance, real estate, and renting, leasing and management of companies and enterprises	165.1	171.7	16.0%
Professional, scientific, and technical services	12.3	12.4	1.2%
Administrative and support, waste management, and remediation services	13.0	13.3	1.2%

(continued)

[1] Employment rate is defined as the proportion of the population 15 years and older that is working, while unemployment rate is defined as the proportion of the labour force that is not working; the labour force is a sub-set of the total population 15 years and older that specifically includes those working and looking for work. Both unemployment rate and employment rate can increase with a growing economy because more people working will increase the employment rate, and the improvement in the economy will entice people to enter the labour force thus increasing the unemployment rate (with more people now looking for work).

Table 3.1-1. Main Industries' Contribution to Nunavut Economy (completed)

Sector	2008 GDP by Industry (million $)	2009 GDP by Industry (million $)	2009 Share of Total GDP (%)
Educational services	114.2	117.0	10.9%
Health care and social assistance	86.5	86.6	8.0%
Arts, entertainment, and recreation	1.3	1.3	0.1%
Accommodation and food services	20.4	21.2	2.0%
Public administration	284.9	292.7	27.2%
Other services (except public administration)	16.5	16.6	1.5%
Total, all industries	**1,137.9**	**1,067.2**	**100.0%**

Note: GDP expressed in millions of chained 2002 dollars.
Source: Nunavut Bureau of Statistics (2010d).

The Government of Nunavut is the primary driver of the economy. In 2009, public administration accounted for more than 27% of the territory's GDP, compared to a total of 6% for Canada as a whole (Statistics Canada 2011a). The public sector also includes educational services and health care as main contributors to economic activity, each representing 11% and 8% of the GDP, respectively.

Within the goods sector, secondary manufacturing industries (construction, utilities, and manufacturing) were the main contributors to the Nunavut economy. In particular, construction represented approximately 16% of the territory's GDP. The construction sector was generally stimulated by mining construction activities and by government spending on social housing (Impact Economics 2011). Primary and harvesting industries (mining, forestry, fishing, hunting, and agriculture) contributed less than 2% to the territory's GDP. Mining, which includes exploration activities, was the main primary industry in the territory, albeit it only represented a small proportion of its GDP (approximately 1.7 %).

In 2009, the GDP decreased by 6% compared to 2008. This was mainly explained by a decline in the construction sector (35% less than in 2008). Most of this decline is attributable to a drop in the construction spending by the Meadowbank Gold Mine Project, the expenditures of which peaked in 2008.

The government is the largest employer in Nunavut. Public administration, health care, and education-related employment represents more than 50% of jobs. In 2009, approximately 3,104 people (30% of workers) were directly employed by the public administration sector. An additional 6,052 people (60% of workers) were employed in service-related sectors (excluding public administration), and only about 938 people (9%) were employed in the goods sector (Impact Economics 2011).

3.1.4.1 Mining and Mineral Exploration

The mineral potential of Nunavut is rich and varied. At present, there is only one operating mine in the territory, but exploration and development is active for a number of other projects. In 2010, there were 85 active explorations, including several projects at various stages of environmental approval (Nunavut Geoscience 2011).

Operating Mines

Meadowbank Gold Mine, a wholly-owned subsidiary of Agnico-Eagle Mines Ltd, is the only mine currently operating in Nunavut. It is located approximately 86 km north of Baker Lake, in the Kivalliq

Region. Meadowbank Gold Mine is also the first mine operating on Inuit Owned Land. All collected royalties will flow directly to the Inuit government (INAC 2010c).

The mine started operations in the first quarter of 2010, and is intended to operate over a period of nine years, with a potential extension if additional reserves are confirmed. The mine is expected to extract 362,000 ounces of gold in 2011 and an average of 399,000 ounces of gold per year from 2012 to 2015, with a mine life up to 2019 (Agnico-Eagle 2011).

As of August 2010, the mine reported a total employment of 1,435 (637 direct employees and 798 contractors). A total of 1,035 employees were involved in the mine's operations and the remaining 400 workers were involved in construction activities (Impact Economics 2011). Since construction activities were completed at the end of 2010, the overall workforce is expected to have decreased by 2011. The local workforce encompassed approximately 20% of the overall mine employment, about 289 workers; of that total, 147 (more than 50%) were from Baker Lake. Locals were mostly employed in unskilled (33%) and semi-skilled (51%) positions, with an additional 15% employed in management or other skilled positions (Impact Economics 2011).

The company has signed an Inuit Impact Benefit Agreement that provides funding for education and skill development in the local communities in order to maximize Inuit employment and business opportunities. Agnico-Eagle has also guaranteed employment for students of the Kivalliq Region who successfully complete mine training courses. As of August 2010, the company reported a training expenditure of more than $400,000 for the first half of the year (Impact Economics 2011).

Developing Mine Projects

The Hope Bay Belt (Doris North) Project is currently under construction in the Kitikmeot Region. Kiggavik, Mary River, and Meliadine are new projects that may also be developed in the upcoming years. Plans are also currently underway to re-open the Jericho Diamond Mine, which closed in 2008.

Hope Bay

HBML is slated to be the next producer of gold in Nunavut through its Hope Bay development. During the first phase, the company is undertaking the initial development of the Doris North underground mine, while continuing district exploration and planning for the development of other known deposits. In parallel, Newmont is moving forward with permitting activities for potential future phases, which will include operation at deposits such as Madrid and Boston. There is potential for mine production to exceed nine million ounces gold over a 20-year mine life (Impact Economics 2011).

In 2010, HBML spent approximately $200 million in underground development and drilling (Impact Economics 2011). The Project's funding for 2011 is approximately $310 million. An average of about 82 Inuit were working on the mine's development during 2010. The company has also assisted in the development of training programs (Impact Economics 2011). An Inuit Impact Benefit Agreement for the Doris North Project was signed in 2006, providing for Inuit contracting, employment and training benefits. Contracting to Inuit Owned Companies and Kitikmeot Based Businesses to the end of 2010 (initial stages of construction) totalled approximately $155 million or 49% of total expenditures.

Kiggavik

The Kiggavik Project is a proposed uranium mining and milling operation located 80 km west of Baker Lake in the Kivalliq Region. It is owned by AREVA Resources Canada Inc. in joint venture with JCU Exploration (Canada) Co. Ltd and DAEWOO Corporation. The project is currently undergoing environmental assessment studies and is expected to begin construction in 2017. The project includes three mine sites, milling facilities, an access road, and a dock site at Baker Lake. The company estimates

that capital investments required to bring the Kiggavik Project into production will be about $1.5 billion with an annual operating cost of about $200 million for approximately 20 years (AREVA 2011).

The project contains approximately 52,000 tonnes of uranium with a grade of about 0.23%. Kiggavik has a potential to produce between 2,000 and 4,000 tonnes of uranium per year for up to 20 years, employing an estimated 400 to 600 people (Impact Economics 2011).

Mary River

The Mary River Project is a potential iron ore mine located approximately 160 km south of Pond Inlet and 1,000 km northwest of Iqaluit on North Baffin Island in the Qikiqtani Region of Nunavut (Baffinland Iron Mines Corporation 2011). Now owned by ArcelorMittal, which recently acquired Baffinland Iron Mines, the project consists of nine high-grade direct-ship iron ore deposits. The open pit mine would crush and screen the ore, which would then be transported to the coast for shipment. The mine's output is estimated to be an average of 21 million tonnes per year over 20 years of operation, with approximately 18 million tonnes being shipped via a railway and year-round port at Steensby Inlet, with the remaining 3 million tonnes being shipped during open water season using an optional alternate port location (Baffinland Iron Mines Corporation 2011).

The Mary River Project is currently in the environmental approval process. In January 2011, the Draft Environmental Impact Statement (EIS) was submitted to the Nunavut Impact Review Board (NIRB). An EIS is a documented assessment of the environmental and socio-economic consequences and recommended mitigative actions of any project proposal expected to have significant environmental consequences, which is prepared by the Proponent (NIRB 2007).

Construction could begin as early as 2012 and is expected to require an initial capital investment of approximately $4 billion (ArcelorMittal 2011). Employment will total approximately 1,500 people during construction and 900 during operation (ArcelorMittal 2011).

Meliadine

The Meliadine Project is a gold deposit located 25 km from Rankin Inlet in the Kivalliq Region. The project is wholly-owned by Agnico-Eagle, which has announced plans to accelerate exploration and has committed a budget of $130 million for the period 2010 to 2012 (INAC 2010c). It is estimated that, if the company receives its permits by 2013, production could commence by 2015. The mine is likely to operate for eight years, employing about 350 people. At full operation, production could reach 300,000 ounces a year (Impact Economics 2011).

Jericho

Shear Diamonds Ltd. has acquired the Jericho Diamond Mine property, which was mined between 2006 and 2008, and is currently working on plans to re-open the mine (Shear Diamonds 2011b). A total of 1.6 million tonnes of kimberlite was mined from the property between 2006 and 2008. Shear Diamonds is in the process of renewing the water license and plans to carry out a full exploration and development program in 2011(INAC 2010c; Shear Diamonds 2011a). A total un-mined reserve of approximately 1.88 million carats is indicated, with an additional 1.13 million carats inferred (Shear Diamonds 2011b). Existing infrastructure from the previously-operating mine include a 2,000 tonnes per day plant, offices, and an accommodation camp for 225 people (Shear Diamonds 2011b). Permits and agreements are currently in place to support operations, including the NIRB Project Certificate and an Inuit Impact Benefit Agreement, although additional permitting and environmental work will be required. There is currently no published target date for the mine's re-opening.

Exploration Activities

In addition to the projects that are at a more advanced stage of development, exploration is active across Nunavut. In 2010, there were 16 base metals, 15 diamonds, 29 gold, 3 iron, 7 platinum group elements, and 14 uranium explorations, as well as 1 rare earth elements exploration (Nunavut Geoscience 2011).

The Canada-Nunavut Geoscience Office (CNGO) is carrying out numerous geological mapping programs throughout Nunavut. Established in 1999, the CNGO provides geoscience information, expertise, and support of responsible resource exploration and development of Nunavut's mineral and energy resources. The CNGO conducts and disseminates geoscience maps and research. The CNGO's geoscience initiatives undertaken in 2010 include mineral district and deposit studies in the Elu Greenstone Belt, southeast of the Hope Bay greenstone belt (Figure 1.1-1). Hyperspectral surveys for mineral explorations around Izok Lake and High Lake Greenstone belts were also conducted. In addition, the CNGO conducted aggregate resource mapping near Gjoa Haven (INAC 2010c).

Exploration activities were highly impacted by the global recession in 2009. Mineral exploration expenditures dropped sharply since 2008's record of $432.6 million (and increase of about 23% over the previous year) to less than $200 million in 2009 (Impact Economics 2011). In 2010, however, exploration expenditures are estimated to have risen again to more than $280 million (INAC 2010c). This trend is expected to continue in 2011, in large part due to the increased mineral demand (particularly in Asia) and surging metal prices worldwide.

Under the NLCA, Inuit people received rights to over 356,000 km^2 of land (IOL). Inuit hold mineral rights on about 10% of that land or 38,000 km^2 (subsurface IOL), while the Government of Canada retains the mineral rights on the remaining 90%, with Inuit holding surface title only (surface IOL). Many of the advance mining explorations projects in Nunavut are located on subsurface IOL.

Mining is viewed as a key sector to promote employment and economic development in Nunavut. Nunavut Tunngavik Inc. (NTI) has adopted several policies that are relevant to exploration and mining, including a general *Mining Policy* (1997), a *Uranium Policy* (2007), and a *Reclamation Policy* (2008; INAC 2010c). The 2007 *Policy Concerning Uranium Mining in Nunavut* established that uranium development must have the full support of Inuit and nearby communities. NTI plans to review the policy after the Government of Nunavut completes its planned uranium consultations (NTI 2011d).

To further promote the industry, the Government of Nunavut has developed *Parnautit: the Nunavut Mineral Exploration and Mining Strategy*. It provides a policy framework and action plan that aims to encourage mineral discovery and development in the territory (NDEDT 2007b). The strategy addresses Nunavut regulatory and taxation regimes, workforce training, infrastructure development, and environmental assessment. Following the release of the Strategy, the government is currently working on areas of legislative renewal and regulatory reform, the development of a policy on uranium, and community consultation guidelines (INAC 2009b).

3.1.4.2 Fisheries

Fishing, particularly in the Baffin area, is an important economic activity for some local communities. The sector has experienced a significant growth in recent years, led by offshore shrimp and turbot fisheries (Impact Economics 2011). Commercial marine fisheries are operating in all the three regions of Nunavut. The largest fish processing facility is located in Pangnirtung, with smaller operations in Iqaluit, Rankin Inlet, Cambridge Bay, and several community facilities, such as those in Gjoa Haven, Chesterfield Inlet, and Whale Cove.

Currently, there are four active Nunavut-based fishing entities: Arctic Fishery Alliance, Baffin Fishery Coalition, Cumberland Sound Fisheries and Pangnirtung Fisheries, and Qikiqtaaluk Corporation (Impact Economics 2011). In 2010, these four organizations held 70% of all turbot allocations (9,350 tonnes) and 34% of all northern shrimp allocations (10,681 tonnes) for the offshore fishing season. Although the Nunavut fishing quota has been increasing, Nunavut allocations are still low compared to allocations in Canadian provinces, which own 80% to 90% of allocations in their adjacent waters (Impact Economics 2011).

In 2009, the total value of a turbot catch was approximately $41 million, slightly lower than the $42 million in 2008 and 2007. In contrast, the value of a shrimp catch decreased significantly in the last years from approximately $22 million in 2007 to $15 million in 2008 and to only $6 million in 2009 due largely to increasing competition from warm-water, farmed shrimp from Asian countries, which has depressed prices (Impact Economics 2011).

Employment in the industry is seasonal, although salaries are relatively high with average earnings of approximately $50,000 per six to seven months of work (Impact Economics 2011).

Inshore fisheries are expected to provide the main opportunities for expansion in this industry, although currently there is only one exploratory fishery inshore (Cumberland Sound). In 2005, the Government of Nunavut developed the *Nunavut Fisheries Strategy* to provide direction to strengthen this sector.

3.1.4.3 Tourism

Touristic activities occur throughout Nunavut, albeit to a limited degree. Nunavut offers an array of tourism products that reflect the remote and natural wilderness of the area. Key tourist interests and activities include:

- ecotourism, focused on wildlife viewing (e.g., muskox, caribou, birds), outdoor adventure (e.g., canoe or kayaking, dog sledding), and interpretive cultural experiences; and
- guide outfitting, including fishing for Arctic char and hunting for muskox and grizzly.

Between June and October 2008, approximately 13,889 people were recorded as visiting Nunavut, an increase of 27% over the number of people who visited Nunavut during the same period in 2006. The majority of visitors were Canadian (83%), followed by American (13%). Approximately 4% of visitors were from other countries. However, most of recorded visits are for business purposes, with approximately one-third of visits being for leisure or holiday. Cruise passengers accounted for approximately 17% of visitors to Nunavut in 2008 (DataPath Systems 2008). Cruise ship stop-off points in the Kitikmeot region include Cambridge Bay, Gjoa Haven, and Kugluktuk.

Because of remoteness and the high costs of travel, the Nunavut ecotourism and guide outfitting product is, overall, for a higher-end, niche market. Infrastructure is also lacking and limited in many communities.

3.1.4.4 Arts and Crafts

The arts and crafts sector is an important economic activity in Nunavut. In 2007, the sector engaged 20% of the Nunavut workforce over the age of 14, which equates to approximately 4,000 individuals (NDEDT 2007a). The sector is estimated to contribute about $30 million to the Nunavut economy each year. Nunavut art is also a significant contributor to Canada's international art export market, with Inuit art representing more than 10% of Canadian art sold internationally (NDEDT 2007a). The government expects this sector to contribute at least $50 million annually to the territorial economy by 2013.

The Canadian and Nunavut governments, mainly through Aboriginal Affairs and Northern Development Canada (AANDC; formerly known as Indian and Northern Affairs Canada or INAC), the Nunavut Development Corporation (NDC), and the Nunavut Department of Economic Development and Transportation (NDEDT), provide substantial financial support to promote the development of the arts and crafts sector.

The NDC provides employment and income-earning opportunities for residents participating in Nunavut's arts and crafts and fur fashions sectors, as well as in commercial fishing and food production. The NDC has nine subsidiaries in seven Nunavut communities, as well as economic partnerships with other Nunavut communities and businesses. The NDC Sales Division based in Mississauga, Ontario, markets and sells Nunavut produced arts and crafts to commercial clients in Canada and abroad. It provides a distribution option for producers looking to connect with the national and international marketplace, and provides marketing support for subsidiary companies (NDC 2012).

The Government of Nunavut, through the NDEDT, has developed a strategy to strengthen the arts and crafts sector (The Sanaugait: A Strategy for Growth in Nunavut's Arts and Crafts Sector; NDEDT 2007a). The strategy defines 19 objectives to support the expansion and diversification of the sector in Nunavut.

The main identified challenges that limit the expansion of this sector are indicated to be (NDEDT 2007a):

- availability of materials;
- provision of safe workspaces;
- lack of training including art techniques, business skills, and school curriculum development;
- access to domestic and international markets; and
- access to information about funding programs, copyrights, and the internet, available in the Inuktitut and Inuinnaqtun languages.

3.1.4.5 Subsistence Economy

Throughout Nunavut, traditional pursuits, such as hunting, trapping, and fishing, are an important part of the economy and quality of life for Nunavummiut. Recognizing the role of this subsistence economy is key to understanding its importance within the socio-economic environment of Nunavut. Subsistence activities are discussed in more detail in Section 6.3 (Subsistence Economy) and Chapter 13 (Subsistence and Cultural Land Use).

3.2 KITIKMEOT REGION

The Kitikmeot Region is the most western of the three administrative regions within Nunavut. The region incorporates the southern and eastern parts of Victoria Island and the adjacent part of the mainland up to the Boothia Peninsula, along with King William Island and the southern portion of Prince of Wales Island (Figure 1.3-1).

This section provides a summary-level profile of the communities of the Kitikmeot Region. More detailed information for each socio-economic component (initially described in Section 2) is provided in Sections 4 to 14.

3.2.1 Bathurst Inlet

Bathurst Inlet is a seasonal community found on a deep inlet of the same name, located on the northern coast of the mainland, into which the Burnside and Western rivers drain. Bathurst Inlet is one of the smallest communities in the Kitikmeot Region. Access can be gained by air from Yellowknife and Cambridge Bay by chartered flights. Snowmobile access is also possible during the ice period.

The community of Bathurst Inlet is currently only occupied during the spring and summer, and is especially driven by the open season of the Bathurst Inlet Lodge, which runs from June through July. It is currently reported that the majority of the population, which consists of a few families, pass the winters in Cambridge Bay.

Given the small population, no public services are available to the community. Electricity is sourced from personal generators and water from ice and river water. The closest business services, school, RCMP station, and medical services are in Cambridge Bay, which is approximately 280 km from Bathurst Inlet.

The majority of economic activity in the community is generated by tourism, sport hunting, subsistence hunting, fishing, and trapping, with a few residents also obtaining employment in the mining sector. The Bathurst Inlet Lodge is a joint venture between Bathurst Arctic Services and the Bathurst Inlet Inuit and is a primary focus for the tourism industry, which operates over June and July catering to eco-tourists. The Nunavut Planning Commission (NPC 2004) notes that the people of Bathurst Inlet follow a traditional and independent way of life, having only relatively recently joined the wage economy to support their traditional lifestyles. The population remains actively involved in hunting and fishing.

3.2.2 Umingmaktok

Umingmaktok is located on Bay Chimo Harbour and was established around an abandoned post on the east shore of the Bathurst Inlet. The community is primarily a seasonal hunting and fishing camp, which may be accessed by chartered flights from Yellowknife and Cambridge Bay or by a boat barge service during the ice-free period. Travel by snowmobile is also common during the winter.

Similar to Bathurst Inlet, occupation is mainly seasonal, although a small population of five to ten residents do typically remain year-round. Census evidence suggests that the population has significantly decreased in recent years. Between 1991 and 1996, Umingmaktok hosted a stable population of approximately 50 people, which declined in 2001 to a reported five persons (Statistics Canada 2007).

The majority of economic activity is generated from tourism, sport hunting, subsistence hunting, fishing, trapping, and employment in the mining sector. Umingmaktok offers no public services. Access to business services, schools, and health services is through Cambridge Bay. As with Bathurst Inlet, electricity is supplied from personal portable generators and water comes from ice and river water.

3.2.3 Cambridge Bay

Cambridge Bay is situated on the southeast coast of Victoria Island in western Nunavut. Cambridge Bay is the largest community in the Kitikmeot Region (Statistics Canada 2007), acting as a regional transportation and business hub.

Cambridge Bay is a traditional hunting and fishing location. Residents undertake harvesting activities that include hunting caribou and fishing Arctic char, which are staple local foods. However, statistics indicate (Statistics Canada 2008a) that there is a growing reliance on the market economy within the community. There are a number of businesses operating in Cambridge Bay, which offer a range of

goods and services, many of which are supported by the mining industry. Tourism and transportation are also important industries.

The government is a prominent employer in the community. Available services in the community include two stores, an RCMP station, elementary and high schools, the Nunavut Arctic College, library, churches, a health and wellness centre, a recreation centre, an arena and pool, a visitors' centre, and government regional offices.

3.2.4 Kugluktuk

Kugluktuk is located on the Coronation Gulf on the Arctic Coast near the mouth of the Coppermine River. It is approximately 450 km southwest of Cambridge Bay and is the second largest community in the Kitikmeot Region, with the population showing consistent growth over recent years (Statistics Canada 2007). This growth may be associated with the increased number of employment opportunities in the community, stemming from both the government and mining sectors.

Local businesses offer a range of goods and services, including construction, contracting, retail, tourism, and accommodation and food services. Employment with the Diavik and EKATI mines, as well as community contributions from those operators, has been important to Kugluktuk. Residents undertake a variety of land-based activities including trapping, hunting, fishing, as well as arts and crafts (Statistics Canada 2008a).

Services in the community include two stores, an RCMP station, elementary and high schools, an annex of Arctic College, churches, a health centre, a rehabilitation centre, a library and recreation centre with skating and curling rinks, and a visitor's and heritage centre.

3.2.5 Gjoa Haven

Gjoa Haven is located on the south-eastern shore of King William Island. The population of Gjoa Haven has grown strongly for over many decades, rising to over 1,000 people in 2006 (Statistics Canada 2007).

Hunting and fishing have historically been regarded as important activities in the community, and the economy of Gjoa Haven is largely based around a traditional lifestyle focused on subsistence harvesting (Statistics Canada 2008a). There are also a number of businesses operating in the community, which offer a range of goods and services including construction, contracting, retail, technical and communication services, and accommodation and food services. Tourism and cultural businesses are also present, and the hamlet is home to the Northwest Passage Interpretive Centre and Historical Park.

3.2.6 Taloyoak

The community of Taloyoak is located on a narrow inlet on the western side of the Boothia Peninsula. Prior to 1992, the community was known as Spence Bay. It is the most northerly mainland community. The population of Taloyoak has been steadily increasing in recent years and has seen a 12.4% rise from approximately 710 people in 2001 to over 800 people in 2006 (Statistics Canada 2007).

The principle forms of economic activity in Taloyoak include hunting, trapping, crafts (sewing), carving, fishing, and wage employment. Pursuit of traditional land use activities is commonly practiced by residents of the community (Statistics Canada 2008a). Local businesses offer a range of goods and services including construction, contracting, retail, technical and communication services, and accommodation and food services. Focus has been placed on the development of the Taloyoak economy as a tourism and arts and craft centre.

3.2.7 Kugaaruk

Kugaaruk, known as Pelly Bay prior to 1999, is located on the northeastern Arctic Coast within Pelly Bay, south of the Gulf of Boothia. Kugaaruk is one of the smallest, youngest, fastest growing, and traditional communities in the region. The population of Kugaaruk has increased rapidly since 1991 when it was just 400 people, increasing by over 68% to approximately 690 people in 2006 (Statistics Canada 2007).

In Kugaaruk, there is a relatively high level of participation in traditional activities, including hunting, trapping, and fishing (Statistics Canada 2008a). Businesses in the community offer a range of goods and services related to construction, contracting, technical and communication services, tourism and culture, accommodation and food services, and transport and shipping. However, as is typical for small Arctic communities, the public sector is a dominant influence on the economy, and unemployment levels remain relatively high (Statistics Canada 2007).

3.3 YELLOWKNIFE

Yellowknife is in the North Slave Region of the Northwest Territories (NWT), located on the western shore of Yellowknife Bay and the Northern Arm of Great Slave Lake. The population of Yellowknife has grown rapidly over the last century, largely due to expansion in the non-renewable resource sector. From 1996 to 2010, the community experienced moderate growth with an average annual growth rate of 0.6% for the total population. The population was estimated at 19,927 in 2010, which accounts for approximately 45.5% of the total NWT population (NWT Bureau of Statistics 2011).

Yellowknife has a fairly high participation in traditional activities, with 34.5% of individuals hunting and fishing and 10.7% of household consuming country foods in 2008. In terms of labour force, the community had a participation rate of 84.5% and an unemployment rate of 5.6% in 2009, making employment conditions better than in the rest of the NWT, which had an overall participation rate of approximately 75.1% and an unemployment rate of 10.3%. Average individual employment income in 2007 was $58,591, higher than the NWT average of $50,627. Similarly, average household income for 2007 was higher in Yellowknife at approximately $128,473 compared to $107,252 for the NWT as a whole (NWT Bureau of Statistics 2011).

4. Community Demographics

4. Community Demographics

4.1 POPULATION

The population of the Kitikmeot Region is estimated to have grown to 5,361 persons in 2006, up 11.3% from 4,816 persons in 2001, which is much higher than the 3.7% growth rate observed between 1996 and 2001 (Statistics Canada 2002). The population has continued to increase in recent years, but it remains as the region with the lowest population in Nunavut. With a recently-estimated total population of 5,974, it represents 18% of the Nunavut Territory's population (Nunavut Bureau of Statistics 2011c).

The 2006 Census of Canada reported the population of Cambridge Bay to be 1,477, an increase of 13% from 1,309 in 2001 (Statistics Canada 2007). Cambridge Bay is the largest community in the Kitikmeot Region, followed by Kugluktuk and Gjoa Haven, with estimated populations of 1,302 and 1,064, respectively. Kugaaruk is the smallest community, with only 688 inhabitants, followed by Taloyoak, which has a reported population of 809.

In 2010, the population was estimated to have grown in all the communities, although at a different pace. The largest communities, Cambridge Bay and Kugluktuk, had the highest population growth from 2006 to 2010 (9% and 8%, respectively), while the lowest population growth was estimated for the small community of Kugaaruk (3%; Nunavut Bureau of Statistics 2011c). As for the whole of Nunavut, strong natural increases (birth rate minus death rate) and a net in-migration from other areas of Canada are the main factors that contributed to the population growth in the communities (Statistics Canada 2010).

For all communities a high proportion of the population is Aboriginal, primarily Inuit. For the Kitikmeot Region as a whole, in 2006, the population was estimated to be 89.7% Aboriginal, totalling approximately 4,800 individuals, of who 4,725 were Inuit (Statistics Canada 2007). For Cambridge Bay, 83% of residents self-identified as Aboriginal. This proportion was higher in all the other Kitikmeot communities, with more than 92% of residents identifying as Aboriginal. This rate is higher than the Nunavut average of 85%, and much higher than the national average of 4% (Statistics Canada 2007). The breakdown of each community's 2006 population, as reported by the census, and estimates for 2010 are shown in Table 4.1-1.

All communities tend to have a slightly higher proportion of males than females. The highest ratio is found in Gjoa Haven, with approximately 1.2 males for every female (Statistics Canada 2007).

Population projections over the next 25 years predict that the population of the Kitikmeot Region will experience a net increase of approximately 19%, reaching a total of 6,913 residents by 2036 (Nunavut Bureau of Statistics 2010e).The fastest growing communities are expected to be Kugaaruk, Kugluktuk, and Taloyoak, with accumulated growths of 29%, 25%, and 20%, respectively (reaching 946, 1,694, and 1,102 inhabitants by 2036). Cambridge Bay and Gjoa Haven are expected to have populations of 1,845 and 1,302, respectively, by 2036 (with 14% and 15% of accumulated growth). With the exception of Taloyoak, the male population is expected to grow at a faster pace than the female population in all the communities. The number of men is predicted to continue to be greater than the number of women in all hamlets (Nunavut Bureau of Statistics 2010e).

Table 4.1-1. Kitikmeot Community Populations

Community[1]	2006 Population			Population Estimates 2010[2]	Estimated Growth 2006-2010[3] (%)
	Total Population 2006	Aboriginal Population (%)	Median Age (years)		
Cambridge Bay	1,477	83%	26.3	1,676	9%
Kugluktuk	1,302	92%	23.8	1,458	8%
Gjoa Haven	1,064	93%	19.9	1,184	7%
Taloyoak	809	92%	19.6	895	6%
Kugaaruk	688	92%	18.0	736	3%

[1]Because of the seasonal and/or low number of permanent residents in the communities of Umingmaktok and Bathurst Inlet, reliable statistics for these communities are not available and thus omitted from the table.
[2]Estimates as of July 1, 2010. Estimates are based on the 2006 Census counts adjusted for net census under-coverage and for the estimated population growth that occurred since the census. Population estimates are not official and should be used with caution.
[3]To get a better comparator, the growth rate was calculated using the July 1, 2006 post-census population estimate adjusted for net census under-coverage provided for the same source.
Source: Statistics Canada (2007), Nunavut Bureau of Statistics (2011c).

4.2 AGE DISTRIBUTION

All communities have a young population, with a median age ranging from 26.3 years in Cambridge Bay to only 18 years in Kugaaruk (Table 4.1-1; Statistics Canada 2007). The entire Kitikmeot Region was reported to have a median age of 22.1 years, making it slightly younger than Nunavut's median of 23.1 years and much younger than the Canadian median of 39.5 years (Statistics Canada 2007).

In 2006, about 30% of the population in Cambridge Bay and Kugluktuk were under the age of 15 (Statistics Canada 2007). Similarly, Gjoa Haven and Taloyoak each had approximately 38% of their population under the age of 15. In Kugaaruk, 43% of the population was under the age of 15, compared to the Nunavut average of 34%. These proportions were substantially higher than the 18% for Canada overall. Kugaaruk had the youngest population among the study communities (Statistics Canada 2007).

Estimates from 2010 show a similar age distribution among hamlets, although it reveals a larger concentration of people in the 15 to 64 age group for all communities (Nunavut Bureau of Statistics 2011d). While no detailed information was available to calculate the median age by community in 2010, it was estimated to have increased in all communities since 2006. Overall, in July 2010, an estimated total of 1,917 people in the Kitikmeot Region were under the age of 15, representing 32% of the region's population (Table 4.2-1). Government projections predict that the population will age slightly by 2036, although it is still expected to remain substantially younger than the Canadian average (Nunavut Bureau of Statistics 2010a).

Table 4.2-1. Age Distribution by Community

Community or Region	2006 Population			2010 Population Estimates		
	Under 15	15-64	65+	Under 15	15-64	65+
Cambridge Bay	450	955	55	485	1,126	65
Kugluktuk	395	850	55	407	982	69
Gjoa Haven	410	625	30	420	733	31
Taloyoak	310	460	20	319	540	36

(continued)

Table 4.2-1. Age Distribution by Community (completed)

Community or Region	2006 Population			2010 Population Estimates		
	Under 15	15-64	65+	Under 15	15-64	65+
Kugaaruk	295	390	10	282	446	8
Kitikmeot Region	1,860	3,320	185	1,917	3,848	209
Nunavut Territory	9,995	18,660	815	10,470	21,738	1,012

Notes: 2010 estimates are as of July 1, 2010. Community population estimates are not official and should be used with caution.
Source: Statistics Canada (2007); Nunavut Bureau of Statistics (2011d).

5. Education and Training

5. Education and Training

5.1 EDUCATIONAL ATTAINMENT

Approximately 32% of the potential labour force in the Kitikmeot Region (i.e., those aged 15 years and over) had some form of post-secondary education in 2006 (Statistics Canada 2007). Amongst those aged 25 years and over, this proportion increased to 44%.

In general, high school completion rates remain low in all communities. Gjoa Haven residents exhibited the lowest level of educational attainment in the region, with over 59% of residents aged 25 to 64 lacking high school or other certificates or diplomas (Table 5.1-1; Statistics Canada 2007). In contrast, Cambridge Bay residents had the highest level of educational attainment among the communities, with only 36% of residents aged 25 to 64 with no high school or other certificates or diplomas. However, for all Kitikmeot communities high school incompletion is well above the Canadian proportion of 15.4% (Statistics Canada 2007). Anecdotally, females in the Kitikmeot region achieve higher levels of formal education compared to males.

Table 5.1-1. Educational Attainment, 2006

	Total Population Aged 25-64									
	Cambridge Bay		Kugluktuk		Gjoa Haven		Taloyoak		Kugaaruk	
Level of Education	N	%	N	%	N	%	N	%	N	%
No certificate, diploma or degree	260	36%	275	48%	245	59%	160	54%	130	52%
High school certificate or equivalent	80	11%	40	7%	25	6%	15	5%	0	0%
Apprenticeship or trades certificate or diploma	85	12%	95	17%	60	14%	45	15%	55	22%
College, CEGEP, or other non-university certificate or diploma	175	24%	100	18%	60	14%	40	14%	35	14%
University certificate or diploma below the bachelor level	10	1%	10	2%	10	2%	10	3%	0	0%
University certificate, diploma or degree	115	16%	55	10%	30	7%	10	3%	20	8%

Notes: N refers to the total number of individuals. Percentages for each community may not sum to 100% due to rounding errors at the source.
Source: Statistics Canada (2007).

The most common reasons for not finishing school reported by young Inuit men included that they wanted to work (18%), they were bored (18%), or they had to work (14%). The most commonly cited reason by Inuit women for not finishing school was pregnancy/taking care of children (24%). Reasons were similar across Inuit regions (Statistics Canada 2008a).

The low level of high school completion and pursuit of education continues to be a challenge in the region. Attendance rates of those enrolled in school can be low (e.g., 50 to 70%). In some communities there can be a number of individuals who have never gone to school (P. Cipriano, pers. comm.). Given the size of class cohorts in earlier grades (i.e., 20 to 25 students), the typical number of students graduating with a grade 12 education continues to be low – from approximately two to eight each year from each community (P. Cipriano, pers. comm.; G. Pizzo, pers. comm.). In Cambridge Bay, there have been about fifteen high school graduates a year for the last three years (C. Kapolak, pers. comm.). Similar challenges remain for attracting students to post-secondary education.

In the Kitikmeot Region, Cambridge Bay had a relatively high proportion of the population with a university certificate or diploma (16%) compared with all the other communities (Table 5.1-1). It also had the highest proportion of residents with a college degree or diploma (24%). However, attainment levels for apprenticeship and trade certifications were approximately equivalent across all communities. The most common field of study reported by all community residents was engineering, architecture, and related technologies. The exception is Cambridge Bay, where the major field of study reported was management and public administration (Statistics Canada 2007).

5.2 LABOUR FORCE EXPERIENCE

The majority of Kitikmeot residents in the workforce were employed in service occupations (Table 5.2-1). The largest proportion of the labour force worked in sales and service occupations, ranging from 23% (Cambridge Bay) to 36% (Kugaaruk). In the majority of the communities, the second most important occupation area was trades, transport and equipment operations. Cambridge Bay was an exception with business, finance, and administration being the second most important occupation category. This is not unexpected given Cambridge Bay's role as a service centre in the Kitikmeot Region.

Table 5.2-1. Experienced Labour Force by Occupation, 2006

	Cambridge Bay		Kugluktuk		Gjoa Haven		Taloyoak		Kugaaruk	
Occupation	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Management	100	14%	40	8%	25	7%	15	6%	10	5%
Business, finance, administration	125	17%	50	10%	40	11%	25	10%	25	11%
Natural and applied sciences	35	5%	30	6%	10	3%	10	4%	0	0%
Health occupations	15	2%	10	2%	10	3%	0	0%	10	5%
Social science, education, government, religion	105	15%	90	17%	65	17%	40	16%	30	14%
Art, culture, recreation, sport	20	3%	20	4%	10	3%	10	4%	0	0%
Sales and service	165	23%	150	29%	130	35%	75	30%	80	36%
Trades, transport and equipment operators	110	15%	105	20%	85	23%	60	24%	55	25%
Primary industry	10	1%	15	3%	20	5%	10	4%	10	5%
Processing, manufacturing and utilities	20	3%	10	2%	0	0%	0	0%	10	5%
Total	715	100%	515	100%	375	100%	250	100%	220	100%

Notes: N refers to the total number of individuals. Percentages for each community may not sum to 100% due to rounding errors at the source.
Source: Statistics Canada (2007).

Social science, education, government, and religion was the third most important occupational category, engaging around 15% of the labour force in all communities (Table 5.2-1). Management was of particular importance in Cambridge Bay, accounting for more than 14% of the labour force.

Occupations unique to primary industry, including mining, accounted for less than 5% of local workforce experience within each community, ranging from less than 2% in Cambridge Bay (approximately 10 people) to 5% in Gjoa Haven and Kugaaruk (approximately 20 and 10 people, respectively; Table 5.2-1).

With respect to industry experience, all Kitikmeot communities exhibit high participation in service sectors, including education, business, retail, and other services (Table 5.2-2). The retail trade is particularly important in Kugaaruk and Gjoa Haven (16% and 15%, respectively). In general, the service sector is the foundation of all the local economies in the Kitikmeot Region, accounting for about 80% of

employment in all communities (Statistics Canada 2007). These labour trends are not atypical for small, isolated, communities where there is a need for the provision of essential services to the local population.

Table 5.2-2. Total Experienced Labour Force by Industry, 2006

Industry	Cambridge Bay		Kugluktuk		Gjoa Haven		Taloyoak		Kugaaruk	
	N	%	N	%	N	%	N	%	N	%
Total experienced labour force 15 years and over	715	100%	515	100%	370	100%	250	100%	220	100%
Agriculture and other resource-based industries	55	8%	80	16%	40	11%	30	12%	15	7%
Construction	40	6%	25	5%	40	11%	20	8%	30	14%
Manufacturing	20	3%	10	2%	0	0%	0	0%	0	0%
Wholesale trade	0	0%	0	0%	0	0%	0	0%	0	0%
Retail trade	65	9%	60	12%	55	15%	35	14%	35	16%
Finance and real estate	30	4%	20	4%	10	3%	10	4%	0	0%
Health care and social services	55	8%	50	10%	20	5%	20	8%	15	7%
Educational services	70	10%	60	12%	60	16%	30	12%	35	16%
Business services	100	14%	40	8%	30	8%	30	12%	20	9%
Other services	280	39%	170	33%	115	31%	70	28%	60	27%

Notes: N refers to the total number of individuals. Percentages for each community may not sum to 100% due to rounding errors at the source. Source: Statistics Canada (2007).

5.3 EDUCATION FACILITIES AND PROGRAMS

Each of the study communities, with the exception of Bathurst Inlet and Umingmaktok, has kindergarten, elementary, and secondary schooling (Table 5.3-1). Students from Umingmaktok and Bathurst attend school in Cambridge Bay (C. Kapolak, pers. comm.). There are separate secondary and elementary schools in the larger communities (i.e., Cambridge Bay, Kugluktuk, and Gjoa Haven), while the smaller communities (i.e., Taloyoak and Kugaaruk) have a single school for all grades. Within these communities, students are provided with the opportunity to obtain their high school certificate (or equivalent). The regional school operations offices are based in Kugluktuk.

Table 5.3-1. Schools in Kitikmeot Communities

Name of School	Community	Grades available
Kullik Ilihakvik	Cambridge Bay	Kindergarten to grade 6
Kiilinik High School	Cambridge Bay	Grades 7 to12
Jimmy Hikok Ilihakvik	Kugluktuk	Kindergarten to grade 6
Kugluktuk High School	Kugluktuk	Grades 7 to12
Quqshuun Ilihakvik Centre	Gjoa Haven	Kindergarten to grade 6
Qiqirtaq Ilihakvik	Gjoa Haven	Grades 7 to12
Netsilik School	Taloyoak	Kindergarten to grade 12
Kugaardjuq School	Kugaaruk	Kindergarten to grade 12

Source: Kitikmeot School Operations (2011).

In terms of early childhood education, Gjoa Haven and Kugluktuk have Aboriginal Head Start Program pre-school facilities, while Cambridge Bay has a conventional day care. Conventional day cares also

operate sporadically in Kugaaruk, Gjoa Haven and Taloyoak. The impact of early childhood intervention on future educational success is recognized and addressed to some degree in the Kitikmeot Region.

The remainder of this section provides further detail on secondary education within each community.

5.3.1 Cambridge Bay

There are two schools in Cambridge Bay – Kullik Ilihakvik and Kiilinik High School. Kullik Ilihakvik offers classes from kindergarten to grade six. The school has approximately 250 students who are served by 11 teachers, a language and cultural specialist, and one school counsellor. The average class size is 25 students per class (Kitikmeot School Operations 2011). Kullik Ilihakvik has a computer lab, a gymnasium, library, a language and cultural area, and kitchen.

Kiilinik High School provides classes from grades seven to twelve (Kiilinik High School 2011). It currently has a population of approximately 180 students served by fourteen teachers, two guidance counsellors, a team of student assistants and a half time student counsellor (C. Kapolak, pers.comm.). People from the Wellness Centre and Health and Social Services also in to the school to help with health programs (C. Kapolak, pers. comm). The average class size is reported to be approximately 20 students at junior level and around 28 students at high school level. Having been completed in 2002, Kiilink School has reasonably modern facilities such as a kitchen, wood shop, science labs, a full-size gymnasium, an art room, sewing room (currently used as the music room), a language room and mobile, wireless computers (C. Kapolak pers. comm.; Kitikmeot School Operations 2011). The school also houses the May Hakongak Community Library and the Cultural Centre, which is operated by the Kitikmeot Heritage Society. The high school shares facilities and an instructor for cooking courses with Nunavut Arctic College, as the high school kitchen is too small for their class sizes (C. Kapolak, pers.comm.).

5.3.2 Kugluktuk

In Kugluktuk, the elementary school (Jimmy Hikok Ilihakvik) offers programs for students in kindergarten to grade six. High school programs through grade 12 are offered by Kugluktuk High School. Total enrolment is approximately 160 students.

5.3.3 Kugaaruk

Kugaardjuq School in Kugaaruk offers classes from kindergarten to grade 12. Currently there are approximately 300 students enrolled in the school, who are relatively evenly distributed across the grades (e.g., about 21 students per grade) until grade 10, after which enrolment declines (Anonymous 1, pers. comm.; Kitikmeot School Operations 2011). There are 18 staff members, including teachers and student support assistants.

The school is relatively well-equipped (Anonymous 1, pers. comm.). All classrooms have been provided with SMART Boards, interactive whiteboards that use touch detection for user input A junior and senior high wing was opened in 2003 and a new gymnasium in 2002 (Kitikmeot School Operations 2011).

5.3.4 Gjoa Haven

The community of Gjoa Haven has two schools – the Quqshuun Ilihakvik School offers kindergarten to grade six and Qiqirtaq Ilihakvik offers grades seven through 12.

There are approximately 170 students enrolled at Qiqirtaq Ilihakvik who are served by 12 teachers, two full-time and one half-time student assistant(s), and one counsellor. There are challenges with the aging infrastructure, including safety issues. The facility can be described as basic. Space is limited and the school operates beyond design capacity; for example, the school library was converted into

two classrooms to meet teaching needs (P. Cipriano, pers. comm.). The library has been relegated to the computer room and one shelf of books.

5.3.5 Taloyoak

Netsilik School offers classes from kindergarten to grade 12. The school has an enrolment of approximately 335 students, with a further 48 students in preschool (G. Pizzo, pers. comm.). There are currently 14 full-time teachers, two full time and one half-time language specialist(s), four full-time and one half-time student support assistant(s), and four pre-school employees, which, for the number of students, is relatively low overall (G. Pizzo, pers. comm.). The school can accommodate an estimated maximum of 350 students (Netsilik School 2011), and it will soon reach its maximum capacity.

Netsilik School is well-equipped, having undergone a major renovation and extension. Facilities include a home economic lab, industrial arts, two computer labs, a music room, a science lab and greenhouse, a library, and a gymnasium. It also provides swimming lessons at the nearby community swimming pool (Netsilik School 2011).

5.3.6 Education Challenges

A challenge with program delivery within Kitikmeot schools is the ability of individual teachers to work within the local culture (Anonymous 1, pers. comm.). There are a number of Inuit teachers working in schools, although there are still a substantial number of teachers who have relocated from the South (the rest of Canada). This also poses challenges for the implementation of the language program. In the lower grades, Inuktitut or Innuinaqtun is the main language of instruction, while in the senior grades all teaching is generally provided in English. It can be difficult for schools to find enough teachers with the necessary language skills to teach in Inuktitut or Innuinaqtun (Anonymous 1, pers. comm.; P. Cipriano, pers. comm.). The Nunavut Teacher Education Program (NTEP; Section 5.3.2) has been successful in helping to provide qualified local teachers.

It can also be difficult for Kitikmeot schools to find teachers who are able to support the delivery of specialized programs or classes (Anonymous 1, pers. comm.; C. Kapolak, pers.comm.; P. Cipriano, pers. comm.). Full time teachers are usually generalists trained in math, language, arts and social subjects. Most do not have specialty teaching skills in important elective areas such as computers, mining and cooking (C. Kapolak, pers. comm.). This results in schools having to bring in teachers for short teaching terms (e.g., to provide art classes, shop classes). Due to the low school population, relative to school sizes in the south, it can be difficult or expensive to provide diverse programming. For this reason, many schools focus on core classes and programs.

A reported issue across the Kitikmeot Region communities is the overall lack of understanding of the value and use of education (Anonymous 1, pers. comm.; P. Cipriano, pers. comm.; G. Pizzo, pers. comm.). As generally perceived by educators, parents do not see the benefits of an education and, thus, do not actively encourage attendance. Communities do not take full advantage of the education opportunities that are provided to them (G. Pizzo, pers. comm.). One cited reason for the low value placed on education is that students do not see the benefits, in terms of opportunities within their community, and often do not get exposed to business and employment opportunities outside of their community (Anonymous 1, pers. comm.; P. Cipriano, pers. comm.). Others identified a gap between the community's view of the school and what the school sees as their role. For example, the school sees its mission as offering education services, whereas some community members may see school as a system imposed from the South (C. Kapolak, pers. comm.) Teachers and school administrators are working towards having input and connections with the community, and to provide programs and activities that reflect traditional values.

Another challenge for education is that students may come to school with issues from home, which can lead to problems in the school. School counsellors play an important role in easing these difficulties, for example by doing home visits (Anonymous 9, pers. comm.). However, due to the transient nature of school staffing, important positions such as this are not always filled.

5.3.7 Nunavut Education Program Initiatives

Nunavut schools have moved towards the development of a Multiple Options program, in order to provide students with more than one pathway to the grade 12 graduation diploma. The program aims to meet the diverse needs of students and allow for multiple career development options. Expectations for the program were articulated by education stakeholders during the extensive *Sivuniksamut Ilinniarniq* consultation process, launched by the Nunavut Department of Education. Participants consistently stated that the current education system, inherited from southern Canada, lacks relevance to the Nunavut context and does not acknowledge Inuit language and culture (Nunavut Department of Education, n.d.) To replace the existing single graduation option, six multiple graduation options emerged from the consultations:

- Community Caregiving and Family Studies;
- Entrepreneurship and Small Business Studies;
- Fine Arts and Crafts;
- History, Heritage and Cultural Studies;
- Communications & Information Technology; and
- Pre-Trades and Engineering.

Students are now encouraged to choose in junior high what they want their focus to be in high school (C. Kapolak, pers. comm.).

Career and Technology Studies (CTS) programs modelled after the program developed for Alberta's secondary schools (Government of Alberta Education 2011), are currently offered in many Kitikmeot schools. The basic intent of a CTS program is to develop skills that are focused on preparing students for employment and careers. Communities have stated interest in establishing CTS courses in mining, as well as other potential career areas (Anonymous 1, pers. comm.; P. Cipriano, pers. comm.). Netsilik School in Taloyoak does offer CTS programs, dependant on student demands and the capabilities of the teaching staff (G. Pizzo, pers. comm.). For example, the school has put a focus on audio-visual equipment and infrastructure to support a specific CTS production program because of the presence of the Inuit Broadcasting Corporation (IBC) centre in Taloyoak. For the first time this past year the Netsilik School also offered an energy and mines CTS that had 24 students enrolled (G. Pizzo, pers. comm.). Kiilinik High School in Cambridge Bay offers CTS courses, but has found that students end of with a wide variety of CTS courses in different areas. They are trying to encourage students to think about future professions and target their selection of CTS courses to support career objectives (C. Kapolak, pers. comm.). In other communities, CTS initiatives are less well-developed and have suffered from poor stakeholder support. A lack of specialized staff to support specific CTS programs can be a challenge (G. Pizzo, pers. comm.).

Some schools, such as Kiilinik High School in Cambridge Bay, offer community and job practicum courses for students to give back to the community and build career opportunities. The school also offers a career and life management course covering health living, personal well-being, career and personal goals (C. Kapolak, pers. comm.).

5.3.8 Post-Secondary Education

Post-secondary education is offered through the Nunavut Arctic College (NAC). The college serves Kitikmeot communities through its Kitikmeot Campus based in Cambridge Bay, which is responsible for all college programming in the region. In addition, education programs are accessible in all Kitikmeot communities through the NAC's Network of Community Learning Centres. Each learning centre coordinates the delivery of college programs in its own community and coordinates partnerships with local organizations (NAC 2008).

Overall, NAC enrolment has been declining over recent years to a total of 1,020 students in 2008, 25% lower than its peak of 1,366 students in 2004. Reduced funding is reported as the main reason for this decline. Two-thirds of the programs are third-party funded and most students in adult education receive financial sponsorship. Another reason cited for the enrolment decline was the greater availability of jobs for young people, who favoured joining the labour market rather than continuing post-secondary education. In contrast, trade and mining-related training has experienced an increase in enrolment (NAC 2008).

Total NAC enrolment in the Kitikmeot Region for the 2010/2011 school year is approximately 140 across all programs (Anonymous 2, pers. comm.). Of this total, approximately 60 students are in Cambridge Bay. The majority of students are in their twenties, with the majority being female (approximately 80:20 split), although this varies by community and program (e.g., most recent NAC students in Taloyoak have been male; Anonymous 2, pers. comm.).

There are a variety of courses available from short, non-credit courses to two-year, full-time programs. Courses range from Adult Basic Education (ABE), which provides course work at the grade-twelve level, to the Nunavut Teacher Education Program (NTEP), which, in partnership with the University of Regina, is able to offer a Bachelor of Education Degree (NAC 2011). A brief summary of the type of programs offered by NAC is provided in Table 5.3-2.

Table 5.3-2. Summary of Programs Offered by Nunavut Arctic College

Program Type	Description
Trade Programs	Designed to teach trade skills at different levels, from basic trade skills to apprenticeship-level skills. There are three types of trade programs available: • introductory trades programs; • pre-trades preparation programs, which prepare students to write the apprenticeship trades entry exam; and • pre-employment programs, which provide training for apprentices at the First Year Apprenticeship level. These apprenticeship programs are delivered in cooperation with the Apprenticeship Division of the Nunavut Department of Education.
Certificate and Diploma Programs	These are credit programs offered in a variety of subjects such as Information Technology, Jewellery, Metal Working, Community Health Representative, and Nunavut Teacher Education. Certificate programs normally include a sequence of 10 courses delivered over a period of one year. Diploma programs are generally delivered over a period of two years and include a sequence of 20 courses.
Career Development Programs	These are short-term skills programs delivered to satisfy training requirements of a particular employment sector such as the Inshore and Offshore Fisheries Program or the Customer Service Training Program.
Academic Studies Programs	These are basic courses designed to improve skills to meet employment, personal, or educational needs. Some examples of these courses are: life skills, traditional knowledge, mathematics, English, and science in the ABE Program.
Continuing Education	Other credit and non-credit customized training, personal development, and general interest courses and workshops are offered on a part-time basis through NAC's Continuing Education Department.

Source: NAC (2011).

The greatest number and diversity of post-secondary education programs are offered through the Cambridge Bay facility (Table 5.3-3). The ABE Program is considered a core offering that is available through all learning centres and receives secure, base funding. As a base-funded program, student space is available for all those who want to take the program. ABE has traditionally been the main focus of offered programs; however, recently the NAC has put emphasis on providing pre-employment programs (Anonymous 2, pers. comm.). Pre-employment programs (of which ABE is a part) are currently being offered in Kugluktuk and Taloyoak. By 2012, pre-employment programs will be offered in all Kitikmeot communities as a base-funded program. Other programs may be offered in the various communities based on there being sufficient local student interest, the necessary funding being secured for programs that are not base funded, and the availability of qualified instructors. For example, a Long-term Care Program was previously provided in Gjoa Haven, which successfully trained workers to staff the continuing care facility located in the community (a total of 10 program graduates were hired by the centre). The program will likely be offered again in the near future to train more local residents (Anonymous 3, pers. comm.).

Table 5.3-3. Current Programs and Courses Offered in Kitikmeot Communities

Program Name	Community
ABE	All communities
Pre-employment	All communities
Pre-trades	Cambridge Bay
Culinary Arts	Cambridge Bay
Human Services (Year 1 and 2)	Cambridge Bay
Foundations Program (for Midwifery Program)	Cambridge Bay
Midwifery Program	Cambridge Bay
Foundations Program (for NTEP)	Gjoa Haven
Nunavut Teacher Education Program (NTEP)	Cambridge Bay and Gjoa Haven
College Foundations	Cambridge Bay
Teacher Education (Year 2)	Kugluktuk
Camp Cook	Taloyoak
Fur Production and Design	Kugaaruk

Source: NAC (2011) and interviews.

There has also been a focus by NAC on offering training to support employment in the mining sector and associated businesses. The Pre-trades Program prepares high school students for the entrance exam for the Nunavut Trades Training Centre in Rankin Inlet (Anonymous 2, pers. comm.). The Pre-trades Program can be described as a combination of high school and college education, allowing part of the coursework to count towards high school credits to help students meet graduation requirements. A total of ten students are enrolled in the Cambridge Bay Pre-trades Program in the 2010/2011 school year, with enrolment being limited due to the capacity of the shop space (Anonymous 2, pers. comm.).

The Nunavut Trades Training Centre in Rankin Inlet is the centre for trades schooling in Nunavut. Individuals from the Kitikmeot Region who want to pursue the trades have to relocate for the school year to Ranking Inlet or, alternatively, attend another post-secondary institution in the South. In 2011, the centre offered training to become an apprentice electrician, oil burner mechanic, and plumber. However, there has been a relatively low level of interest in trades training across Nunavut. The Nunavut Trades Training Centre has a capacity for 132 students, but only had 38 applications from prospective students resulting in the cancellation of a number of courses this year (Anonymous 2, pers. comm.).

The Kitikmeot Economic Development Commission (KEDC), based in Cambridge Bay, provides grant funding to students to allow them to pursue training and education programs, and it also funds programs (C. Aitaok, pers. comm.). The KEDC works to secure funding from other partner agencies, such as the Nunavut Department of Education and Service Canada, to maximize the amounts that are available. Funding is client-driven, with proposals accepted from prospective students as well as from companies that are developing training programs either on their own or with the NAC (C. Aitaok, pers. comm.). In total, the KEDC provides grants to approximately 50 students a year.

The Nunavut Department of Education also provides post-secondary financial support through the Financial Assistance for Nunavut Students (FANS) program.

6. Livelihood

6. Livelihood

6.1 LABOUR FORCE

According to the 2006 Census, the potential labour force in the five Kitikmeot communities (excluding Bathurst Inlet and Bay Chimo), the population over 15 years of age, totalled approximately 3,475 people (Statistics Canada 2007). The collective active labour force was approximately 2,185, indicating an average participation rate of 62.9%. This level of participation is lower than the Nunavut average of 65.3% and the Canadian average of 66.8% (Statistics Canada 2007).

The participation rate ranged from 71% in Cambridge Bay to a low of 58% in Taloyoak and Kugaaruk (Table 6.1-1). The unemployment rate in all communities was relatively high compared to the national average of 6.6% and it was also higher than the Nunavut average of 13%, except for Cambridge Bay, which reported an unemployment rate of 10% (Table 6.1-1).

Table 6.1-1. Participation and Unemployment Rates for Kitikmeot Communities, 2006

Community	Potential Labour Force[1]	Active Labour Force[2]	Participation Rate[3]	Unemployment Rate[4]
Cambridge Bay	1,020	720	71%	10%
Kugluktuk	895	540	60%	22%
Gjoa Haven	660	405	61%	30%
Taloyoak	495	285	58%	28%
Kugaaruk	405	235	58%	21%

[1]Potential labour force is defined as the total population 15 years and over.
[2]Active labour force is defined as the total number of persons registered as employed or unemployed.
[3]Participation rate is defined as the share of the potential labour force that is active.
[4]Unemployment rate is defined as the share of the active labour force that is unemployed.
Note: Percentages may not sum to 100% due to rounding errors at the source.
Source: Statistics Canada (2007).

Male participation rates were higher than female participation rates (Statistics Canada 2007). The unemployment rate was also higher among men than among women in all communities. Collectively for the Kitikmeot Region, a total of 440 people (20.1% of the total labour force) were not employed, of whom 270 were male and 185 were female. This indicates high levels of male (22.9%) and female (18.3%) unemployment, compared to the Nunavut averages of 17.8% and 13%, respectively. With the exception of Cambridge Bay, all the Kitikmeot communities have higher levels of unemployment for both sexes than the territory average. The community that reported the greatest number of unemployed persons was Gjoa Haven, with a total of approximately 120 or 30% of the labour force unemployed (Table 6.1-2).

Table 6.1-2. Unemployment by Gender for Kitikmeot Communities, 2006

	Number Unemployed			Unemployment Rate		
Community	Total	Male	Female	Total	Male	Female
Cambridge Bay	70	45	25	10%	12%	8%
Kugluktuk	120	70	55	22%	24%	22%
Gjoa Haven	120	75	45	30%	33%	25%
Taloyoak	80	50	35	28%	32%	27%
Kugaaruk	50	30	25	21%	25%	23%

Note: Percentages may not sum to 100% due to rounding errors at the source.
Source: Statistics Canada (2007).

6.2 INCOME

6.2.1 Individual and Household Income

For Cambridge Bay, median individual income in 2005 was reported at $26,061, which was substantially higher than the territorial average of $20,982 (Table 6.2-1; Statistics Canada 2007). In contrast, the other Kitikmeot communities reported much lower incomes, ranging from $18,336 for Kugluktuk to only $15,744 for Taloyoak, all of them below the Nunavut average.

Table 6.2-1. Median Individual and Household Income, 2005 and 2008

Community	2005 Median Individual Income Population Aged 15 +			Median Household Income 2005	Median Tax Filer Income 2008
	Total	Male	Female		
Cambridge Bay	$26,061	$33,920	$19,979	$71,936	$25,850
Kugluktuk	$18,336	$20,506	$15,088	$54,976	$18,550
Gjoa Haven	$16,602	$18,768	$15,040	$57,984	$17,550
Taloyoak	$15,744	$14,848	$17,109	$45,952	$18,080
Kugaaruk	$18,304	$18,880	$17,216	$58,624	$16,800

Source: Statistics Canada (2007); Nunavut Bureau of Statistics (2008a, 2010c).

Again, Cambridge Bay reported the highest median household income among the Kitikmeot communities ($71,936), 22% more than for Kugaaruk, the community with the second highest household income and almost 20% more than the average for the Nunavut Territory (Table 6.2-1; Statistics Canada 2007). All the other communities have median household incomes that are lower than the Nunavut average of $60,221. More recent data on incomes reported by tax filers in 2008 for each community show similar patterns (Table 6.2-1).

The Government of Nunavut is currently preparing a poverty reduction strategy that focuses on various themes, including community and economic development, food security, education and training, health and well-being, and housing. This strategy is currently in the second stage of three planned consultations and is expected to be completed near the end of 2011.

6.2.2 Earnings

There is a divergence among communities in terms of income from earnings. This is explained largely by the difference in salaries and the proportion of part-time workers within communities. The individual earnings in Cambridge Bay, estimated at $33,408, are more than double the individual earnings in Gjoa Haven, estimated at $12,096 (Table 6.2-2; Statistics Canada 2007). However, full-time and part-time individual earnings in Gjoa Haven were only 40% lower than those in Cambridge Bay. The higher proportion of part-time workers in Gjoa Haven largely explains the difference in total individual earning. In general, all communities reported high proportions of part-time or seasonal workers, ranging from 58% in Cambridge Bay to 87% in Gjoa Haven. Kugluktuk reported 72% of work being part-time or seasonal and Taloyoak and Kugaaruk both reported 74%.

The median full-time individual earnings among the communities of Cambridge Bay and Kugluktuk were higher than for the territory ($58,088), having been estimated at $65,856 and $60,055, respectively, for 2005 (Statistics Canada 2007). Full-time earnings for Gjoa Haven, Kugaaruk, and Taloyoak were notably lower than for Nunavut as a whole, having been estimated at $47,360, $38,016, and $30,784, respectively. On the whole, the Kitikmeot Region has the lowest income in comparison to the other two regions of Nunavut.

Women have relatively lower employment earnings than men (Table 6.2-2). Full-time earnings for women are significantly lower than those for men in many of the study communities, with the difference being less pronounced in Kugluktuk. This difference is evident when comparing part-time earnings. The biggest difference in terms of full-time earnings was observed in Taloyoak, where male earnings were more than double female earnings. Overall, the Kitikmeot communities have the highest salary disparity between genders than any other region in Nunavut.

Table 6.2-2. Median Individual Earnings, 2005

Community	Total			Male			Female		
	Total	Full-time	Part-time	Total	Full-time	Part-time	Total	Full-time	Part-time
Cambridge Bay	$33,408	$65,856	$9,696	$40,032	$71,765	$10,880	$24,986	$63,104	$8,016
Kugluktuk	$23,980	$60,055	$9,632	$27,520	$61,312	$11,984	$21,013	$58,965	$7,104
Gjoa Haven	$12,096	$47,360	$6,792	$13,728	$54,400	$6,992	$10,016	$35,712	$5,392
Taloyoak	$12,928	$30,784	$6,608	$15,520	$49,946	$6,608	$11,296	$24,032	$6,640
Kugaaruk	$15,024	$38,016	$7,136	$17,472	$47,957	$7,136	$11,989	$28,608	$7,280
Kitikmeot Region	$20,041	$56,864	$8,022	$23,984	$60,000	$9,600	$16,969	$50,816	$6,984
Nunavut	$26,848	$58,088	$10,007	$29,235	$59,915	$10,040	$24,973	$56,005	$9,627

Source: Nunavut Bureau of Statistics (2008a).

6.2.3 Sources of Income

Household income is often derived from a variety of sources. This includes earnings from employment, government transfers (i.e., income assistance), and other sources (Table 6.2-3; Statistics Canada 2007).

Table 6.2-3. Sources of Income, 2005

Community	Employment Income	Government Transfers	Other Income Sources
Cambridge Bay	91.4%	6.9%	1.5%
Kugluktuk	85.1%	12.6%	2.2%
Gjoa Haven	75.1%	21.9%	2.9%
Taloyoak	71.7%	26.4%	2.5%
Kugaaruk	78.0%	20.6%	1.8%
Nunavut	86.5%	11.2%	2.3%

Note: Percentages may not sum to 100% due to rounding errors at the source.
Source: Statistics Canada (2007).

Cambridge Bay derived 91.4% of its household income from earnings, while in Taloyoak the share of total household income from earnings was only 71.7% (Table 6.2-3). Household incomes in Kugluktuk, Kugaaruk, and Gjoa Haven were between these values and compared to the Nunavut average of 86.5% in 2005. With the exception of Cambridge Bay, all the communities obtained a relatively large amount of income from government transfers compared to the average for Nunavut as a whole (11.1%). In particular, 26.4% of household income in Taloyoak was from government transfers in 2005 (Statistics Canada 2007).

6.3 SUBSISTENCE ECONOMY

Traditional economic activities are recognized to be of great importance in the Kitikmeot communities, particularly among Inuit residents. The subsistence economy includes non-commercial hunting, fishing,

trapping, and gathering. It also includes the transformation of harvested products into useful articles such as clothing, tools or arts and crafts. Subsistence harvests have real value for households because harvests decrease the need to purchase food and other necessities. In addition, products made from or acquired through land-based activities (e.g., furs, clothing, and arts and crafts) may also be sold, thus providing income and linking with the cash economy. The economic value obtained from subsistence activities is supplementary to the deep social and cultural values associated with use of the land (Sections 10.2 and 10.3).

The subsistence economy is supported through the Nunavut Harvester Support Program (HSP), offered by NTI and administered locally by Hunters and Trappers Organizations (HTOs). Recipients can obtain support for mobile and small equipment purchase, and some funds are set aside for equipment necessary to process harvested materials. Kitikmeot communities each obtain approximately $90K per year from NTI for this purpose.

A large proportion of residents participate in harvesting activities (Table 6.3-1). In 2006, the majority of Kitikmeot community members hunted, fished, trapped, or gathered wild plants and berries (Table 6.3-1). This compares to data for all Aboriginal residents in Nunavut, in which 71% reported that they hunted, 76% fished, 79% gathered wild plants and berries, and 30% trapped (Statistics Canada 2008a, 2008b).

Table 6.3-1. Proportion of the Population (15 years and over) Participating in Harvesting Activities during the Past 12 Months, 2006

Community	Hunting	Fishing	Gathering Plants	Trapping
Cambridge Bay	62%	68%	45%	n/a
Kugluktuk	64%	71%	89%	30%[E]
Gjoa Haven	74%	85%	29%	21%[E]
Taloyoak	80%	92%	73%	n/a
Kugaaruk	82%	92%	72%	n/a

E = estimated.
n/a = data not available.
Source: Statistics Canada (2008a, 2008b).

Furthermore, statistics indicate that an increasing proportion of the Kitikmeot population is participating in traditional economic activities. Statistics Canada (2008a) reports that the number of adult residents aged 15 years and older in Kugluktuk, Cambridge Bay, and Gjoa Haven who reported hunting activity in 2006 was approximately 14% greater than the number reported in 2001. In contrast, between census years there was virtually no change in participation rates for fishing. The frequency of gathering activities reported in 2006 showed a large variation between communities, from 29% in Gjoa Haven, to 89% in Kugluktuk; this is likely related to the availability of plants and berries for harvesting near the communities.The remainder of this section describes harvest activities and use of the harvests. The focus of the discussion is on Bathurst Inlet, Umingmaktok, and Cambridge Bay because the interview and focus group results (J. Avalak, pers. comm.; B. Sitatak, pers. comm.; Land use focus group participants, pers. comm.) confirmed that residents from these communities are known to hunt and fish within the land use LSA (Figure 1.3-2; Section 13.2). Residents of Gjoa Haven, Taloyoak, and Kugaaruk do not hunt or fish this far west, typically remaining within an 80 to 100 km range of the community, often only going out on day-trips (T. Carter, pers. comm.; S. Quingnaqtuq, pers. comm.; L. Nakoolak, pers. comm.; P. Qayatinuak, pers. comm; M. Uqqarqluk, pers. comm).

6.3.1 Harvest Activities

The Nunavut Wildlife Harvest Survey, conducted between 1996 and 2001, remains as the most current and comprehensive information source on subsistence harvests in the Kitikmeot Region (NWMB 2004). The survey collected data on non-commercial hunting, trapping, gathering, and fishing of mammals, birds (and their eggs and feathers), fish, and shellfish. For the purposes of the study, a hunter was defined as someone who is a beneficiary of the NLCA, who is 16 years of age or older, and who participates in hunting, fishing, or trapping of animals at any time during the year. Three major categories of hunting frequency were defined for the analysis:

- intensive land users are those who are repeatedly and regularly engaged in most of the various hunting activities throughout the year;
- active land users are those who are engaged in a limited number of major harvesting activities, often with a short but intense commitment; and
- occasional land users are those who are usually short-term and irregular hunters, focused on day-trips and weekend outings.

Approximately 17 to 18 hunters were registered annually in Bathurst Inlet; three were classified as intensive land users, four as active, and the remainder reported occasional activity (NWMB 2004). Harvest data indicate that the majority of hunters harvested caribou, with an annual mean harvest of 93 animals, while Arctic ground squirrel, Arctic fox, red fox, wolverine, grey wolf, Arctic hare, and seal were also common prey. Ptarmigan (willow ptarmigan and rock ptarmigan) were the most commonly hunted bird species, and seagull eggs were also popular. Fishing activities were practiced by nearly all hunters, with catches including Arctic char, cod, lake trout, and whitefish. It is noted that many hunters leave Bathurst Inlet for the winter to live in other centres (e.g., Cambridge Bay, Kugluktuk), returning to the community for the summer months.

In Umingmaktok, the number of hunters decreased from 31 in 1996/97 to only 11 in 2001, which likely reflects an overall decline in the population of the community (NWMB 2004). There were no intensive hunters in any year, while approximately three hunters were classified as active, although actual numbers varied greatly with changes in the population. Caribou was the most-hunted game, with an annual average of 176 kills, and Arctic ground squirrel, grey wolf, Arctic and red fox, wolverine, and seal were also common. Canada goose, eider duck, and ptarmigan were the most popular among birds, as were goose, duck, and seagull eggs. Similar to Bathurst Inlet, fishing activity focused on Arctic char, cod, and lake trout.

Cambridge Bay hunters reported between 330 and 350 hunters each year, utilizing an area that includes much of Victoria Island, Queen Maud Gulf, and sections of the mainland (NWMB 2004). Each year, 15 to 17 hunters were classified as intensive and approximately 60 were classified as active. Caribou was by far the most popular game, with an average of 811 harvests per year, followed by Arctic fox (226 harvests), and seal (97 harvests). Waterfowl, including geese and ducks, also showed high harvest levels, and fishing harvests focused on Arctic char, lake trout, and whitefish (NPC 2004). People from Umingmaktok indicated that the number of animals harvested per hunter depends on the size of their family (M. Avalak, pers. comm.).

The results of interviews conducted for this baseline study have indicated that the current number of intensive and active hunters in each of these communities is approximately as reported in the NWMB (2004) survey. Approximately 20 to 25 hunters are reported to be active within and near the land use LSA (Figure 1.3-2), 10 from Umingmaktok and Bathurst Inlet and 10 to 15 from Cambridge Bay (see also Section 13.2).

6.3.2 Use of the Harvest

Harvested animals are used for a variety of purposes, first and foremost as food for household and community consumption. As noted in Section 10.3 (Land Use and Country Foods), the sharing of the harvest strengthens and upholds community and family relations and values, especially as country foods are more shared than store bought foods. Country foods are an important component of livelihoods as they provide food security to elders and single parent families through their sharing beyond the hunter's immediate household.

Approximately 31% of residents reported eating caribou meat daily or almost daily, while only 16% reported rarely or never eating it. Country foods consumption also includes fish, seal, ptarmigan, and muskox, which combine for an estimated average of 1,000 to 1,500 kg of product per hunter. The meat and fish harvested by each hunter every year has an estimated replacement value of $10,000 to $15,000 (NPC 2004).

- The main uses of harvested animals includes the following (J. Avalak, pers. comm,; B. Sitatak, pers. comm.; Land use focus group participants, pers. comm.):
- caribou – food, material for making clothing, tools, and shelter, and supplies for arts and crafts (e.g., antlers);
- muskox – food for people and dogs, hide and wool (qiviut) for clothing, wool for sale, and supplies for arts and crafts (e.g., horns);
- wolverine, wolf, and fox – fur for sale to provide income (mainly within the community), but also for personal use (e.g., parka trimming, mukluks, mitts);
- seal – food and hide for clothing;
- various bird species and their eggs (e.g. geese, swans, ducks, ptarmigan) – food and insulation in blankets and jackets (eider duck); and
- Arctic char, trout, and whitefish – food for people and dogs, bags and mitts made with skin.

In Cambridge Bay, the collection and sale of wool from the muskox harvest has been very successful (B. Sitatak, pers. comm.). The underwool from a muskox (qiviut) is highly valued in the international market. Locals in the community have recently been trained on how to shear the hides, rather than having to bring a skilled shearer up from the South. Currently, the raw wool is sold and shipped south for processing and marketing through a buyer based in Peru; however, the local Hunters and Trappers Organization (HTO) hopes that in the future more of the value-added processing and marketing will be done locally (B. Sitatak, pers. comm.).

Through the guide outfitting operations of the HTOs, Cambridge Bay (the Ekaluktututiak HTO), Umingmaktok and Bathurst Inlet also conduct sport hunts for muskox and/or grizzly. This also provides a source of income for local hunters. The sport hunt is discussed in more detail in Section 14.2.

7. Economic Development

7. Economic Development

7.1 THE KITIKMEOT REGION'S ECONOMY

The economy of the Kitikmeot Region is characterized as mixed, with focuses on public sector services, the private sector market economy, and traditional activities. Important formal economic sectors for Kitikmeot communities include: government administration; health care and social services; education; retail; construction; transportation; tourism services; arts and crafts; and mineral exploration and development. The traditional economy is largely focused on subsistence land use that does not involve the exchange of money (Section 6.3). Inuit people in the region often supplement their traditional livelihoods by participating in the market economy at different times of the year, depending on factors of seasonal harvesting in the area and the availability of wage employment.

As with many northern communities, the service sector is the base of the Kitikmeot economy. It provides employment to approximately 80% of the working population (Section 5.2; Statistics Canada 2007). This includes business services, education services, retail trade, and health and social services. In contrast, primary and secondary industries account for about 20% of local employment, including resource-based industries and construction.

The renewable and non-renewable natural resource sectors are important to the regional economy, while tourism is also becoming more prominent. There is also significant potential for a period of growth in the Kitikmeot Region over the next 25 years as opportunities to develop mineral-based deposits and oil and gas are expected to emerge. This in turn is expected to fuel economic growth within local communities and provide substantial benefits to Nunavummiut in the region.

7.2 BUSINESS

7.2.1 Existing Community Businesses

As for the territory as a whole, the Government of Nunavut dominates the service sector and is the major economic driver of the local communities. This heavy dependency on the public sector is the result of circumstances such as a harsh climate, geographic remoteness, small population, and underdeveloped infrastructure systems that have led to serious constraints for private sector economic development in the territory.

Cambridge Bay is the largest and most diversified economy and is the business hub for the Kitikmeot Region, with an economy that is fairly balanced across the sectors (J. MacEachern, pers. comm.). Other communities have relatively few private sector businesses. These businesses mainly focus on providing essential services required by the community, which are not provided by government agencies, or on providing goods and services to government programs (e.g., housing). Businesses provide a wide range of services, including those that focus on goods and services to industry and the general public.

Many communities in the Kitikmeot Region do not maintain a registry of businesses. However, a central registry of Inuit-owned businesses is maintained by NTI (NTI 2011b; Table 7.2-1). This excludes businesses that do not meet the criteria for being deemed Inuit-owned (e.g., the Northern Store). Further information on community business and services was obtained from field visits and interviews, as presented below. In addition, the Municipality of Cambridge Bay has provided a listing of businesses operating within the community (J. MacEachern, pers. comm.).

Table 7.2-1. Profile of Registered Inuit Firms in the Kitikmeot Region

Community	Type of Business	Number of Firms
Cambridge Bay	• Construction, contracting, and property management	7
	• Accommodation and housing	2
	• Retail	2
	• Air transportation	3
	• Medical, safety, and paramedical	3
	• Logistical services, expediting, and remote site management	3
	• Multiple services to mining sector	1
	• Mine development and training	1
	• Trade and services	3
	• Explosives	1
	• Catering, camp management, and janitorial services	2
	• Taxi	1
	• Translation and language services	1
	• Finance and accounting	1
	• Lodge and guide outfitting	1
Kugluktuk	• Construction, contracting, and property management	2
	• Accommodation	1
	• Retail	2
	• Taxi	1
Gjoa Haven	• Construction, contracting, and property management	3
	• Accommodation	1
	• Retail	1
	• Consulting	1
	• Lodge and guide outfitting	1
Taloyoak	• Construction, contracting, and property management	2
	• Accommodation	1
	• Retail	1
	• Trade and service	1
	• Translation and language services	1
Kugaaruk	• Construction, contracting, and property management	1
	• Accommodation	1
	• Retail	1
	• Fish sales	1

Source: NTI (2011b).

Because of the opportunities afforded by government spending on housing and infrastructure, each Kitikmeot community has at least one prominent firm providing construction services. These services can include housing and building construction, heavy equipment operation and excavation, road construction and maintenance, pad construction, and crushing to provide aggregate, as well as the rental of trucks, tools, and equipment (B. Schoenauer, pers. comm.). These businesses provide a relatively large number of private sector jobs, particularly during the summer construction season, and for smaller communities they typically provide the greatest number of jobs outside of government. The construction businesses include Kalvik Enterprises (Cambridge Bay), Kitnuna Projects (Cambridge Bay), Kikiak Contracting (Kugluktuk), CAP Enterprises (Gjoa Haven), Lyall's Construction (Taloyoak), and

Koomiut Co-operative Association (Kugaaruk), among others. For example, in Taloyaok the largest private sector employer is Lyall's Construction, with approximately 20 local employees, followed distantly by the Co-op Store and the Northern Store (J. Oleekatalik, pers. comm.).

Co-operatives are a popular business model in Nunavut. Each Kitikmeot community has a co-operative (co-op) retail store that sells food, clothing, and a broad range of household items. With the exception of Kugaaruk, communities also have a competing Northern Store. Co-operatives operate the Inns North hotel chain and also hold a number of other contracts for providing services in the community. For example, in Kugaaruk, the Koomiut Co-op Association Ltd. operates the retail store and hotel; provides accommodation units for rent, heavy equipment services, construction services, and cable television systems; holds the POL (petroleum, oil, and lubricant) service contract for the community; and is the agent for air service (First Air and Canadian North) and ATV and snowmobile sales (Yamaha and Polaris; L. Flynn, pers. comm.).

Mining service businesses have developed in Cambridge Bay, including medical and safety services, expediting and logistical services, site management, catering, and janitorial services (Tables 7.2-1 and 7.2-2). These companies have benefited from business opportunities associated with the current Doris North exploration and development activities, as well as other mining sector activities in the Kitikmeot Region. In total, there are approximately 100 businesses operating in Cambridge Bay (Table 7.2-2). The recent announcement of the new Canadian High Arctic Research Station (CHARS) in Cambridge Bay, which is to be operational within approximately five years and have a staff of approximately 55 or more, will bring additional business opportunities to the community (J. MacEachern, pers. comm.).

Table 7.2-2. Cambridge Bay Businesses

Type of Business	Description	Number of Firms
Consulting Services	• Engineering, environmental, business, management, human resources, language, and culture consulting services	9
Contracting and Mining Services	• Project management, property management, general contracting, construction, renovation, logistics, equipment rental, and mechanical, plumbing, heating, and electrical services	17
Expediting Services	• Expediting services focused on the mining industry	4
Financial, Legal, and Beneficiary	• Finance, banking, legal, insurance, accounting, and bookkeeping services	7
Food and Accommodations	• Hotel accommodations, rental accommodations, restaurant, and catering services	6
Janitorial Services and Supplies	• Cleaning and painting services, and janitorial supplies	4
Other Businesses and Services	• Wide variety of services, including import and export, daycare, dental, petroleum products, carpentry, and medical site services (among others).	13
Property Management	• Property management	7
Retail Sales and Rental Services	• General retail, gifts, art consulting and sales, motor vehicle sales, vehicle rental, retail sewing, meat and fish products, and pharmacy	18
Telecommunication Services	• Cable TV, internet, mobile phone, and telephone services	4
Tourism and Outfitters	• Guide services, sport hunting and fishing, sight-seeing, and other tourism services	11
Transportation Services	• Aviation, helicopter charter, shipping and barging, and taxi services	13

Note: individual businesses may appear in more than one category if providing multiple services.
Source: J. MacEachern, pers. comm.

In addition to Cambridge Bay, the mining sector has also had an effect on other Kitikmeot communities, including Kugluktuk (because of the Diavik and EKATI operations in the NWT) and Kugaaruk (because of local exploration activities of companies such as Diamonds North and Indicator Minerals; L. Flynn, pers. comm.).

In smaller communities, businesses and other organizations are involved in providing a wide range of services and providing services outside of their core client group. This is necessarily as a result of servicing relatively small, isolated populations that cannot support a large number of businesses. For example, it is not uncommon for housing associations, which are primarily responsible for the management and maintenance of public housing for the Nunavut Housing Corporation, to contract out maintenance services outside of public housing on an as-required basis (i.e., accept work orders from private home owners; G. Dinney, pers. comm.; H. Tungilik, pers. comm.). Because of the on-hand inventory and ability to source building supplies, private home owners may also purchase construction materials directly from housing associations, which effectively operate as local building supply stores.

7.2.2 Challenge for Business Growth

There are a number of regional challenges for economic development. Overall, the relatively low levels of education and training within the labour force hinder economic development (S. Novak, pers. comm.). There is strong competition for skilled labour. For example, the mining sector tends to attract the more educated and skilled Nunavummiut, taking them away from local government and business jobs and leaving gaps in the communities (C. Dimitruk, pers. comm.). This can exacerbate the lack of skilled and experienced labour (e.g., trades, equipment operators) available in communities.

Transportation can also be a substantial challenge (C. Hogaluk, pers. comm.). The cost of air travel is relatively high, and schedules can be affected by poor weather (L. Flynn, pers. comm.). Supplies are also shipped by barge (e.g., dry goods, construction materials, and fuel), but this is limited to the summer months. Communities must rely on one sealift delivery a year, which can compete with the transportation demands of industry potentially resulting in delivery delays (C. Dimitruk, pers. comm.).

A lack of infrastructure is a continuing hindrance to business growth. This includes both a lack of housing for employees, as well as a lack of building space for the location of businesses. A number of hamlets are interested in establishing an “incubation mall” or building that has a number of office and storefront spaces that can be rented by small businesses. The need to focus on the arts and crafts sector to provide both work space and a place to sell products to visitors was also identified (C. Dickson, pers. comm.).

Another cited challenge for business growth in the Kitikmeot Region is a lack of business and financial management skills (C. Hogaluk, pers. comm.). In general, start-up businesses that fail often do so because of financial mismanagement (T. Schwindt, pers. comm.). There is a need for local skills training in business management.

Other challenges for business growth include access to funding for business start-ups, expansions, and capital purchases. However, there are a number of government services and programs available to provide grants and loans (Section 7.3). Nevertheless, local businesses have difficulties raising the personal equity component required for funding (J. MacEachern, pers. comm.).

In Cambridge Bay, a number of forces working against economic development have been identified, these include: a lack of leadership, drug and alcohol abuse, a lack of infrastructure (i.e., affordable housing, recreation facilities), and a lack of tourism products and branding. Stated positive forces include the relatively high level of education in the community, the presence of the NAC and its focus

on trades training, the level of volunteerism in the community, the delivery of community wellness programs and services, and the growing population with increasing incomes (RT Associates 2009).

Similarly for Kugluktuk, factors that have been identified as posing challenges for economic development include lack of skills and training, lack of infrastructure (i.e., housing), few developed tourist attractions, Government of Nunavut housing policies and "red tape" faced by businesses, and the high costs of living (RT Associates 2005). Positive forces include improved education services and a greater level of respect for education (and a resulting greater high school completion rate and number of students pursuing post-secondary education), a growing and trained workforce, more residents committed to community projects, and a greater community awareness of how wellness supports economic development.

Challenges and opportunities are similar in other Kitikmeot communities. But perhaps one of the greatest challenges is the overall lack of industry and diverse private sector economic base (J. Oleekatalik, pers. comm., B. Schoenauer, pers. comm.; T. Schwindt, pers. comm.). As described previously, local economies, particularly in the eastern Kitikmeot communities, are based mainly on the public sector. Specifically, government expenditures on public services, public housing, and income support in turn support local retail and service businesses. Export (e.g., tourism and arts and crafts sales) does occur, and there is outside investment, but to a relatively limited extent. Overall, there is a lack of private sector economic activity that is independent of government expenditures, meaning little generation of "new" money and value-added products as a basis for economic growth within the communities.

7.3 DIRECTIONS FOR ECONOMIC DEVELOPMENT

Community Economic Development plans provide a vision for economic development and guide local efforts to support economic growth. Sector strategies and goals as described by the Community Economic Development plans for the Kitikmeot study communities are provided in Table 7.3-1. The Community Economic Development plans for Kugaaruk and Taloyaok were not available at the time of the writing of this report.

Through the Government of Nunavut, there is a number of investment support programs offered to encourage the development of local business. The Nunavut Department of Economic Development and Transportation (NDEDT) provides funding to small business, individuals, organizations, and municipal governments out of the Community Economic Development regional office based in Kugluktuk. The four main funding programs include:

- Small Business Support Program – the program provides funding for business planning, financial planning, marketing, pilot projects, site development and improvements, equipment, and professional services.
- Arts and Crafts Program – the program provides funding for the purchase of tools and equipment.
- Strategic Investment Program – the program provides funding for building renovations and the purchase of infrastructure.
- Policy on Program Partnership – the policy's fund pays the salaries of hamlet Economic Development Officers (EDOs) and for municipal projects (as proposed and developed by the municipalities).

Table 7.3-1. Identified Sector Strategies and Goals for Economic Development

Community	Sector Strategy	Goal
Cambridge Bay	Canadian High Arctic Research Station	• Establish Cambridge Bay as the site of the CHARS with 55 plus employees undertaking and supporting research throughout the Arctic
	Mineral Exploration and Mining	• Expand employment and training and business opportunities related to mineral exploration and mining
	Tourism	• Develop and promote tourism products and services that attract tourists and business travelers to Cambridge Bay
	Small Business	• Develop opportunities within the business sector that create more local services, create local employment and income, reduce leakage, and keep money circulating within the community
	Other Sectors	• Expand and diversify arts and crafts, and expand commercial meat and fish harvesting and processing with more value-added products
	Community Wellness	• Improve community wellness that supports community economic development
Gjoa Haven	Arts and Crafts	• Increase the opportunity for artists and crafts people to participate in the wage economy
	Small and Micro Business	• Support small and micro businesses by hamlet policies, programs, and initiatives • Ensure the success and increase the number of small and micro businesses in the community
	Community Infrastructure	• Provide infrastructure that meets the needs of the community
	Commercial Food	• Sustainable utilization of country foods for local consumption and for the economic benefit of hunters, businesses, and employees
	Health, Wellness, Education, and Training	• A healthy community with a positive environment in which to live • An educated, skilled, and literate workforce • Provision of qualified personnel for the mining sector • Employment of residents in all three levels of government
	Tourism	• Tourism to be a leading contributor to the economy of Gjoa Haven
	Transportation	• Improve the availability of transportation services within Gjoa Haven • Costs of importing and exporting goods will not be a barrier to economic development
Kugluktuk	Mining and Mineral Exploration	• Develop opportunities within the mining and mineral exploration sector, including joint ventures and training that generate local employment, income, and business opportunities
	Tourism	• Develop, promote, and market more quality products and services that attract more tourists and business travelers
	Small Business	• Develop more locally owned and operated new and expanded businesses that serve residents and regional markets
	Arts and Crafts	• Develop and market more local arts and crafts with strong a product-market match
	Renewable Resources Strategy	• Develop sustainable renewable-resource commercial activities that generate work, income, and business opportunities for harvesters and local residents
	Social Development	• Improve Kugluktuk's social environment that supports economic development

Sources: Aarluk Consulting (2007a, 2007b); RT Associates (2005, 2009).

In addition, the NDEDT offers other broader-based funding programs that are administered out of offices outside of the region (e.g., the Prospector's Assistance Program). Within the Kitikmeot Region, the main sectors of focus for funding are tourism, arts and crafts, and service and retail businesses (Anonymous 4, pers. comm.). There has been little direct involvement by the Community Economic Development regional office in support of businesses for the mining sector.

Other business development support is available from the Nunavut Business Credit Corporation (NBCC), which provides venture debt financing, with a focus on small and medium-sized enterprises (SMEs). Products include loans, loan guarantees, bid security, and investment support. Under NTI, the Atuqtuarvik Corporation also offers loans, loan guarantees, bid security, and investment placement to SMEs that are Inuit-owned.

The Kitikmeot Economic Development Commission (KEDC), based in Cambridge Bay, provides grants for business start-ups, business expansions, and the development of the arts and crafts sector (i.e., carvers and sewers). Grants have a limit of $50,000 for individual businesses and $5,000 for the Nunavut Sivummut Program. Business strategy grants are available for business planning, financial planning, and marketing; for these services, the KEDC provides a list of consultants, mostly based in Yellowknife, who are able to provide these services. Arts and crafts grants are used by recipients mainly to purchase tools and other equipment. The business development section of the KEDC serves approximately 20 clients per year (C. Hogaluk, pers. comm.).

Kitikmeot Community Futures Inc. operates out of Cambridge Bay and has a mandate to support economic development across the region. The organization provides small-scale loan products, including lines of credit, bridge financing, and financing for barge orders, as well as business planning services. Community Futures provides support to local businesses by focusing on financing beyond what would typically be provided by the commercial banks; loans are at a higher interest rate and on a short-term basis, but are easier to access. Approximately 35 clients are served each year. Community Futures also works closely with the KEDC (T. Schwindt, pers. comm.).

Within each community, the hamlet EDO is also an available source of information and non-financial support for the development and expansion of local business. EDOs provide economic development programming for the community and administer grant programs provided through the NDEDT (S. Novak, pers. comm.). Overall, EDOs support entrepreneurs, training, and employment-related initiatives. Their services include assistance with business planning and preparation, which could include the development of business and financial plans, the development of marketing strategies, serving as a liaison with different levels of government, obtaining licenses and permits, and accessing business and financial management services (J. MacEachern, pers. comm.; S. Novak, pers. comm.; J. Oleekatalik, pers. comm.).

In addition, there continue to be a number of business trade shows, conferences, and workshops with a focus on promoting the economic development of Nunavut and the Kitikmeot Region. For example, in February of 2011, the Kitikmeot Trade Show was held in Cambridge Bay. Sessions at the show addressed the development of transportation, infrastructure, and mining, as well as the social and cultural aspects of doing business in the region. An arts and crafts workshop for the Kitikmeot Region was also recently held in Taloyoak to examine ways to come together as a region and improve product marketing (S. Novak, pers. comm.).

8. Community Infrastructure and Public Services

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8. Community Infrastructure and Public Services

8.1 HOUSING

The availability of suitable housing is an important issue for all Kitikmeot communities. The current stock ranges from approximately 170 dwellings in Kugaaruk to 540 in Cambridge Bay (Table 8.1-1). The vast majority of these are occupied by residents, while from 4 to 17% are occupied either by temporary residents or are unoccupied. In some communities, such a Taloyaok, there are a number of abandoned houses that have fallen into disrepair.

Table 8.1-1. Housing Infrastructure by Community, 2009/2010

	Total Dwellings[1]		Dwellings Occupied by Usual Residents[2]		Dwellings Occupied Solely by Temporary Residents or Unoccupied Dwellings[3]	
Community	Number	%	Number	%	Number	%
Cambridge Bay	540	100%	480	90%	60	10%
Kugluktuk	430	100%	400	93%	30	7%
Gjoa Haven	230	100%	230	96%	10	4%
Taloyoak	220	100%	190	83%	40	17%
Kugaaruk	170	100%	150	87%	20	13%
Kitikmeot Region	1,600	100%	1,450	90%	150	10%
Nunavut Territory	9,400	100%	8,550	91%	850	9%

[1] Total number of dwellings excludes collective dwellings that are used for commercial, institutional, or communal purposes (e.g., hotel, hospital, work camp).
[2] Defined as a dwelling in which a person or a group of persons is permanently residing or a dwelling in which the residents have no usual home elsewhere.
[3] Defined as a dwelling in which all occupants have a usual place of residence elsewhere or a dwelling in which no usual, temporary, or foreign resident is living at the time of the survey.
Source: Nunavut Bureau of Statistics (2011b).

For the Kitikmeot Region, the most common types of dwellings are single detached houses (59%) and row houses with three or more units (28%; Nunavut Bureau of Statistics 2011b).

The majority of dwellings are rented – approximately three out of every four dwellings across the region (Nunavut Bureau of Statistics 2011b). Rented housing includes public housing, government staff housing, and private market rental units. Public housing units are subsidized rented dwellings under the Nunavut Housing Corporation and are available to Nunavummiut who meet certain eligibility requirements. Staff housing includes Government of Nunavut staff housing, Government of Canada staff housing, or other employer-provided housing. Private market rental units are owned by private individuals, corporations, or other organizations and made available on the rental market.

An important characteristic of housing in the Kitikmeot Region is the prevalence of public housing, which ranges from approximately 64% of all occupied residential dwellings in Kugluktuk to 77% in Taloyoak (Table 8.1-2). The notable exception to this is Cambridge Bay where about half of all occupied residential dwellings are public, with approximately 30% owner-occupied and 15% government staff housing. Private market rental units are characteristically a small percentage of the housing available in the communities. Although private housing is costly to construct, in communities such as Cambridge Bay

there is public interest in home ownership because it is seen as a good investment (J. Kaiyogana, pers. comm.). However, in other more remote communities with less developed economies, such as Taloyoak, there is less of an initiative for the development of privately owned homes.

Table 8.1-2. Housing Tenure by Community, 2009/2010

Community	Dwellings Occupied by Usual Residents	Owner-occupied Dwellings		Rented Dwellings					
				Public Housing		Government Staff Housing		Private Market Rental Units	
	Number	Number	%	Number	%	Number	%	Number	%
Cambridge Bay	480	140	30%	230	49%	70[E]	15%	n/a	n/a
Kugluktuk	400	90	22%	250	64%	30	8%	20[E]	6%[E]
Gjoa Haven	230	40	18%	170	75%	10	4%	10	3%
Taloyoak	190	20	13%	140	77%	10	5%	10	6%
Kugaaruk	150	30	22%	100	69%	0	2%	10	7%
Kitikmeot Region	1,450	330	23%	900	63%	120	9%	80[E]	5%[E]
Nunavut	8,550	1,880	22%	4,400	52%	1,350	16%	830	10%

E = estimated.
n/a = number considered unreliable.
Source: Nunavut Bureau of Statistics (2011b).

Public housing development in Nunavut is under the control of the Nunavut Housing Corporation. Within each community, housing associations (or an authority in the case of Taloyoak) are responsible for the overall operation and administration of public housing on behalf of the Nunavut Housing Corporation (G. Dinney, pers. comm.). Housing associations are managed by a board consisting of elected community members (J. Kaiyogana, pers. comm.). The responsibilities of housing associations or authorities include: review of applications and allocation of public housing (with final approval from the Nunavut Housing Corporation); collection of rental payments from tenants; liaising with tenants and addressing housing issues as they arise; on-going maintenance and upkeep of the units; and assistance with the administration of other government housing programs (i.e., private home grants, heating oil subsidies; G. Dinney, pers. comm.; H. Tungilik, pers. comm.). Allocation of public housing is based on a points system, in which points are awarded based on the degree of overcrowding in the applicants current home, the condition of the unit currently occupied, the number of families in the home, and the duration of the need, among other criteria (G. Dinney, pers. comm.).

Housing is overcrowded in the Kitikmeot Region as defined by the National Occupancy Standard (NOS; Table 8.1-3). The problem is particularly prevalent in the eastern Kitikmeot communities, where just over 50% of all dwellings occupied by residents are classified as crowded. Crowding results in many individuals sleeping in the same bedroom and/or using the living room as a sleeping area (Table 8.1-3).

The shortage of available public housing has resulted in a large waiting list of applicants (Table 8.1-4). Again, the issue is more prevalent in the eastern Kitikmeot communities where the percentage of the population (15 years or over) on the waiting list for public housing ranges from 23% in Kugaaruk to a high of 33% in Taloyoak (Table 8.1-4). In contrast, the wait list represents only 12% of the population in Cambridge Bay. The data reported on the length of time on the waiting list may be unreliable due to the large number of non-responses to this question during the survey (Nunavut Bureau of Statistics 2011b). However, the majority of people who provided answers have been waiting for more than one year, with many stating that they have been waiting for five years or more (particularly in the communities of Gjoa Haven and Taloyaok).

Table 8.1-3. Dwellings Occupied by Usual Residents Classified as Crowded, 2009/2010

Community	Crowded Dwellings		Crowded Dwellings Regularly Using the Living Room as a Sleeping Area	
	Number	% of Total	Number	% of Total
Cambridge Bay	170	35%	80[E]	17%
Kugluktuk	130	34%	50	13%
Gjoa Haven	130	57%	70	30%
Taloyoak	100	56%	50	28%
Kugaaruk	70	50%	30	20%
Kitikmeot Region	610	43	280	20%
Nunavut	2,930	35	1,470	18%

Note: dwelling is classified as crowded if there is a shortfall of bedrooms based on the NOS.
E = estimated.
Source: Nunavut Bureau of Statistics (2011b).

Table 8.1-4. Number of Applicants Waiting for Social Housing, 2009/2010

Community	Total Population 15+	Population 15+ on Waiting List for Public Housing	
	Number	Number	% of Total
Cambridge Bay	1,330	150[E]	12%
Kugluktuk	1,030	170	19%
Gjoa Haven	720	160	25%
Taloyoak	540	170	33%
Kugaaruk	460	100	23%
Kitikmeot Region	4,090	760	20%
Nunavut	22,780	3,780	18%

E = estimated.
Source: Nunavut Bureau of Statistics (2011b).

The severe shortage and substantial overcrowding of housing in the Kitikmeot Region has broader implications on the health and well-being of the community. A greater number of individuals living together in overcrowded conditions can lead to greater conflict and family violence, more substance abuse, a greater incidence of disease (e.g., respiratory illnesses), and mental health issues, among others (S. Bucknor, pers. comm.; T. Ennis, pers. comm.). These issues can be exacerbated during the winter months when individuals are confined indoors.

The populations of the Kitikmeot communities are expected to continue to grow (Section 3.1). Based on the projected growth, in conjunction with the current challenges of overcrowding and long waiting lists for public housing, there will be a need for additional new housing units. As part of the development of community plans for the hamlets, the public housing needs have been estimated to be:

- 325 units for Cambridge Bay by 2026 (Municipality of Cambridge Bay 2007);
- 100 units for Gjoa Haven by 2020 (Hamlet of Gjoa Haven 2008);
- 170 units for Kugaaruk by 2028 (Hamlet of Kugaaruk 2009);
- 100 units for Kugluktuk by 2020 (Hamlet of Kugluktuk 2007); and
- 216 units for Taloyoak by 2030 (Hamlet of Taloyoak 2009).

The above estimates may be conservative given that the community population growth estimates on which future housing needs are based have become dated and, overall, are lower than more recent growth estimates (see Section 3.1). For example, with the recent award of the Canadian High Arctic Research Station (CHARS) to Cambridge Bay there will be an additional housing need for approximately 55 families associated directly with that operation (J. MacEachern, pers. comm.).

In 2004 a ten-year action plan was developed to address housing needs across Nunavut (Nunavut Housing Corporation and Nunavut Tunngavik Inc. 2004). The action plan notes that due to the climate, geography, small population base, isolation, underdeveloped infrastructure systems, and high cost of building in Nunavut communities the development of private sector housing is hindered; consequently, the creation of an adequate housing supply is dependent on public sector involvement (Nunavut Housing Corporation and Nunavut Tunngavik Inc. 2004). In 2004, the action plan identified the immediate need for approximately 3,000 new housing units and the renovation of an additional 1,000 units across Nunavut to raise the housing standards to the level found elsewhere in Canada. With forecasted population growth to 2016, it was estimated that an average of about 275 new units would need to be constructed in Nunavut to keep pace with the change in population and to avoid further crowding; in total, taking into account both current and forecasted housing shortages, it was estimated that approximately 500 housing units would need to be renovated and constructed each year across the territory in order to address the existing core housing need and accommodate future growth (Bayswater Consulting Group 2004).

Public housing is being built in the Kitikmeot communities to help address the housing need, although the number of units being built is generally modest. For example, approximately seven new units are constructed each year in Cambridge Bay (J. Kaiyogana, pers. comm.). Only seven new units are also under construction in Gjoa Haven, and there are currently approximately five units that are reportedly to be in dire need of replacement (H. Tungilik, pers. comm.). Taloyoak saw the construction of four five-plexes (20 units) in 2010, although only 12 new units will be constructed in 2011 (G. Dinney, pers. comm.). Available funding for public housing falls short of the demand, and, based on the current trends, construction continues to fall further behind the increasing need of a growing population.

8.2 HEALTH CARE AND SOCIAL SERVICES

Each community in the Kitikmeot Region has a health centre that serves as the focal point for the delivery of health care and social services. Community health centres provide access to a wide range of services to meet the health service needs of the residents, which include assessment, treatment, and prevention. Health centres are operated and staffed by the Government of Nunavut. Essential services are generally provided on a full-time basis by staff who live in the communities, while other services are provided at intervals by rotating health professionals through Stanton Hospital in Yellowknife (C. Evalik, pers. comm.). The Kitikmeot Region headquarters for the Nunavut Department of Health and Social Services is in Cambridge Bay, with two additional offices in Kugluktuk (C. Evalik, pers. comm.).

Health care services can be broadly classified as consisting of (1) treatment of illness or injury and (2) public health. Within the Kitikmeot communities, services and programs are delivered by different community health care and social service providers that include the following.

- Community Health nurses – nurses provide assessment and primary, direct care to patients who come to the health centre due to injury or illness.
- Community Health representatives (CHRs) – CHRs deliver public health programs that include Well Woman, Well Child, Well Man, and Prenatal programs (M. Kayaksak, pers. comm.). Information topics include disease prevention, healthy eating, and drug and alcohol awareness,

among others (R. Kamookak, pers. comm.; R. Okpik, pers. comm.). The representatives provide on-going public health prevention and education services to the community through public health clinics on an on-demand basis (i.e., individuals or groups asking for information) and through community-wide information programs. CHRs work with various health professionals, community groups, and non-government organizations (NGOs) to help keep people well and healthy (D. Nadeau, pers. comm.).

- Home and Community Care workers – these workers serve clients who require extra care due to illness, poor health, or disability. Through case management and personal care the aim is to maximize the ability of an individual to remain independent at home.
- Mental Health workers – Mental Health workers provide care to clients with mental health issues, including Post-traumatic Stress Disorder, domestic violence, addictions, depression, schizophrenia, probation referrals, suicide ideation (thoughts about suicide), and Borderline Personality Disorder. Service includes assessment, counselling, treatment, and referrals.
- Community Social Service workers – these workers support the delivery of government services related to child protection, adoption, guardianship, adult support, residential care, and family violence services by conducting interventions and assisting individuals and families in the community with developing skills and accessing resources to enhance their well-being. A Foster Parent Association is being developed in Cambridge Bay (Nunavut Department of Health and Social Services 2012).

Health centres may also be staffed with a Community Health Nurse, Home Care Nurse, Psychiatric Nurse, and Dental Therapist. Filling vacant positions in many areas of health care has been a continuing struggle for the Government of Nunavut (Nunavut Department of Health and Social Services 2008a). The lack of training and education of individuals delivering the public health programs can also be a challenge (D. Nadeau, pers. comm.).

Specialists and medical consultants who visit community health centres to provide services on a rotational basis include audiology, vision, obstetrics, gynaecology, paediatrics, psychiatry, dentistry, and orthodontic professionals (C. Evalik, pers. comm.). Visits are typically made every two to six months, depending on the service (Nunavut Department of Health and Social Services 2008a, 2008b; T. Ennis, pers. comm.; R. Joseph, pers. comm.), with service contracts based on a specified number of days of service a year (C. Evalik, pers. comm.).

Health centres' nursing staff will also contact on-call physicians outside of the Kitikmeot Region by phone to seek advice on the treatment of a case (T. Ennis, pers. comm.). Communities are also connected to a video teleconferencing system called Telehealth. The system is used to connect patients in community health centres to physicians and specialized health professionals located in larger centres.

The Kitikmeot Health Centre in Cambridge Bay is the largest in the region and provides additional services that not offered in other communities. This includes diagnostic services (i.e., medical laboratory, x-ray services, and endoscopy) and midwife services, allowing childbirth to occur at the community health centre. In-patient care is also provided, consisting of three adult beds and four paediatric beds; in-patient services are focused on short-term, low-acuity clients who require prolonged intervention or monitoring of their condition. The Kitikmeot Health Centre also serves as the training centre to provide orientation and mentorship to newly recruited community health professionals (Nunavut Department of Health and Social Services 2008b).

In the communities of Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk, expecting mothers are flown out of the community at 36 weeks (R. Joseph, pers. comm.). However, because expecting mothers may be reluctant to leave the community, many births still occur at health centres (T. Ennis, pers. comm.; R. Joseph, pers. comm.). The Birthing Program at the Kitikmeot Health Centre in Cambridge Bay allows women with low-risk pregnancies to give birth with the assistance of a midwife. The experience with this new program to date has been positive (C. Evalik, pers. comm.). However, due to a lack of surgical or specialized services, obstetrical cases are still directed to either Stanton Territorial Hospital in Yellowknife or the University of Alberta Hospital in Edmonton (Nunavut Department of Health and Social Services 2008b). Outside of Cambridge Bay there is no midwife program available in the Kitikmeot communities.

Within the Kitikmeot Region there is one continuing care facility for Elders. The nine-bed facility is located in Gjoa Haven. Other community-level Elder care is provided by home care workers and through the individual hamlet wellness programs (Section 9.3.2).

Patients with emergencies, for which the necessary level of treatment at a community health centre is not available, are medevaced typically to Stanton Territorial Hospital in Yellowknife, NWT. Other non-emergency cases that require a full-service hospital or medical specialists are also transported out of the community to Stanton Territorial Hospital (C. Evalik, pers. comm.). Transported cases include those needing access to specialized medical expertise for neurology, dermatology, rheumatology, oncology, orthopaedics, and urology, among others (T. Ennis, pers. comm.).

There is no professional ambulance or paramedic service provided to Kitikmeot communities. Only Cambridge Bay has an ambulance service that is staffed by volunteers. But in all communities, ground transportation for trauma patients or other emergency cases must be either undertaken by patients themselves or assistance must be requested from the medical centre's nursing staff, the local fire department or, as is often the case, the RCMP (R. Joseph, pers. comm.; T. Ennis, pers. comm.; L. Sharbell, pers. comm.).

8.3 SAFETY AND PROTECTION

8.3.1 Law Enforcement and Crime Prevention

8.3.1.1 RCMP

Each community in the Kitikmeot Region has a staffed RCMP detachment to provide policing services. Basic duties include law enforcement, investigation of criminal offences, crime prevention (e.g., school education, delivery of the DARE program), the swearing of legal documents, administration of the driver's licence test, and participation in community justice (Section 8.3.1.2). Other RCMP activities include assisting Social Services and Mental Health Services, and providing first response and transportation of individuals to the health centre, as required (J. Atkinson, pers. comm.; P. Bouchard, pers. comm.; C. Gauthier, pers. comm.; L. Sharbell, pers. comm.). RCMP officers also participate in the Junior Rangers Program and provide assistance to municipal Bylaw Enforcement officers (at times providing enforcement of bylaws in communities that do not currently have a Bylaw Enforcement Officer; J. Atkinson, pers. comm.; L. Sharbell, pers. comm.).

The staffing and equipment available to each community RCMP detachment is listed in Table 8.3-1. Basic equipment includes trucks, ATVs, and snowmobiles. Cambridge Bay, Kugluktuk, and Taloyoak also currently have boats. Staffing varies by the size of the community and the local service demand, although it is RCMP policy that there will always be at least two officers available in each community to ensure that backup is always available (J. Atkinson, pers. comm.). If there is an emergency that

requires specialized policing services or additional officers, they are typically brought in from Iqaluit or, alternately, Yellowknife (J. Atkinson, pers. comm.).

Table 8.3-1. RCMP Staffing and Equipment in Kitikmeot Communities

Community	Staffing	Equipment
Cambridge Bay	• 1 Detachment Commander • 5 constables • 1 Clerk	• 3 trucks • 2 boats (one not operational) • 2 ATVs • 2 snowmobiles
Kugluktuk	• 1 Detachment Commander • 5 constables	• 3 trucks • 2 boats • 2 ATVs • 2 snowmobiles
Gjoa Haven	• 3 constables	• 2 trucks • 2 ATVs • 2 snowmobiles
Taloyoak	• 1 Corporal • 1 Constable	• 2 trucks • 2 boats • 2 ATVs • 2 snowmobiles
Kugaaruk	• 2 constables	• 1 truck • 1 boat • 2 ATVs • 2 snowmobiles

Sources: P. Bouchard, pers. comm.; D. Malakhov, pers. comm.; L. Sharbell, pers. comm.

The notable gaps in safety and protection services in Kitikmeot communities include victims' services (not provided in Nunavut), substance abuse treatment facilities, women's shelter services (currently not available in all communities), and emergency ground transportation services (C. Gauthier, pers. comm.; L. Sharbell, pers. comm.).

Incidences of crime in communities are discussed in Section 9.2.

8.3.1.2 Community Justice

Community justice is also an important feature of the social landscape in Nunavut. It is based on the practice of restorative justice, meaning the development of a healing relationship with the community, reintegration, and mediation. The responsibilities of the Community Justice Division, Nunavut Department of Justice, include: diversions, crime prevention, family mediation, victim services, and administration of the *Family Abuse Intervention Act* (2009; Community Justice Division 2011). *Inuit Qaujimaningit* serves as the guiding principle of community justice, including:

- *inuuqatigiitsiarniq* (respecting others, relationships, and caring for people);
- *tunnganarniq* (fostering good spirit by being open, welcoming, and inclusive);
- *pijitsirniq* (serving and providing for families and communities); and
- *qanuqtuurniq* (being innovative and resourceful).

Within each community there is a Community Justice Committee and, except where there are position vacancies, a Community Justice Outreach Worker. Committees are made up of a diversity of people from the community, including Elders (Community Justice Division 2011). For diversion clients, the Community Justice Committee meets to assess cases brought before it and to prescribe the necessary restorative measures. Committees may meet with clients individually or with the victim present using a mediation model. Based on the recommendation of the Committee, a contract is established with the client, which details the measures to be undertaken and the agreed-upon deadlines. The Community Justice Outreach Worker provides supervisory follow-up to make sure that commitments are kept and to guide the client through the process. The mandate of the Community Justice Committee also includes crime prevention, community awareness, and advocacy. Cases dealt with by community justice include diversions both from the courts and directly from the RCMP (referral without charge). Most diversion clients are youth who have committed infractions such as a break and enter and theft (Community Justice Division 2011).

Community Justice Outreach workers support the work of the committees and provide the link to the Community Justice Division (Community Justice Division 2011). Community Justice Outreach workers also support the implementation of the *Family Abuse Intervention Act* (2009) by assisting clients with obtaining emergency protection orders (immediate assistance due to serious and urgent circumstances of family abuse) and community intervention orders (counselling to support families in abusive relationships).

Opened in 2005, the Ilavut Healing Centre in Kugluktuk provides a culturally based approach to healing low risk offenders. The centre's aim is to reconnect the centre's inmates with Inuit traditions and societal values, with community elders playing a significant role. The centre is designed to house up to 16 residents (Government of Nunavut Communications 2005).

8.3.2 Fire Protection

Fire protection services in each community are provided by a volunteer fire department operated by each hamlet. There are no professional fire department personnel in Kitikmeot communities. Each community has basic fire-fighting equipment.

8.4 RECREATION

Community recreation facilities and programs are operated by the hamlets. Recreation coordinators are responsible for the delivery of recreation programs to meet the needs of the community residents, as well as management of recreation facilities (i.e., ice arena, community hall). A list of the public recreation infrastructure in each Kitikmeot community is provided in Table 8.4-1.

The recreational programs that are available vary by community in response to local demands and the infrastructure and funding that is available to support the programs. Recreation programs focus on youth to promote an increase in activity levels and to alleviate boredom (S. Krug, pers. comm.). Regular events may include ice hockey, curling, bingo, and weekend dances. Special events may include hockey tournaments, Christmas games, Arctic games, volleyball, cribbage tournaments, community feasts, fishing derbies, as well as Canada Day and Nunavut Day celebrations, among others (S. Krug, pers. comm.; R. Tucktoo, pers. comm.). The Recreation Coordinator may also work closely with the hamlet Wellness Coordinator to integrate programs and to support the overall promotion of health and wellness in the community (R. Tucktoo, pers. comm.).

Table 8.4-1. Public Recreation Infrastructure in Kitikmeot Communities

Community	Public Buildings and Infrastructure
Cambridge Bay	• Community hall • School gymnasiums and field/playground • Exercise facility • Pool (summer operation only) • Youth centre • Elder's centre (Elder's Palace) • Basketball courts • Ballpark • Arena with ice and curling rinks
Kugluktuk	• Community hall • Cultural centre • School gymnasiums and field/playgrounds • Basketball park • Ballpark • Arena with ice and curling rinks
Gjoa Haven	• Old community hall • New community hall, with assembly area, kitchen, and exercise room • School gymnasiums and field/playground • Elder's Palace • Golf course • Ball park • Arena with ice and curling rinks
Taloyoak	• Community hall • Elder's Palace • School gymnasium and field/playground • Pool (summer operation only) • Arena with ice and curling rinks
Kugaaruk	• Hamlet gymnasium • School gymnasium and field/playground • Arena with ice and curling rinks

Source: Interviews and field studies.

9. Health and Community Well-being

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9. Health and Community Well-being

9.1 HEALTH

9.1.1 Determinants of Health

Inuit Tuttarvingat, a centre of the National Aboriginal Health Organization, collects and shares information and knowledge on a wide range of health and wellness issues of concern to Inuit. The organization recognizes health to be affected by an array of factors in the surrounding physical and social environments, described as determinants of health. Key determinants of health identified by the organization include economic development, environment, food security and housing (Inuit Tuttarvingat 2012).

9.1.2 Health Status

Self-reported health status, data that are collected through the national census, provides an overall measure of health. The results for the Kitikmeot Region are shown in Table 9.1-1. Results are fairly consistent across communities, with 43 to 50% of residents reporting excellent or very good health, 33 to 39% reporting good health, and 11 to 19% reporting fair or poor health. These Kitikmeot community self-rated health status scores are comparable to the Canadian average of 56% excellent or very good, 27% good, and 17% fair or poor (Statistics Canada 2008a).

Table 9.1-1. Self-rated Health Status, 2006

	Proportion of Population (% 15 years and over)		
Community	Excellent or very good	Good	Fair or poor
Cambridge Bay	43%	38%	19%
Kugluktuk	45%	39%	16%
Gjoa Haven	49%	33%	16%
Taloyoak	43%	39%	16%
Kugaaruk	50%	37%	11%

Note: values for Taloyaok and Kugaaruk are estimated.
Source: Statistics Canada (2008a).

Census information also asks individuals to self-report on chronic conditions (Table 9.1-2). The prevalence of chronic conditions in the Kitikmeot are indicated to be generally at the same level as in Canada overall. Cardiovascular problems tended to be higher in Taloyoak than in any other community. For the two communities for which data on chronic communicable disease were available, the rate of incidence was higher than the Canadian average, while the incidence of arthritis and rheumatism are less common in Kitikmeot communities than in Canada overall (Statistics Canada 2008a). This is not unexpected given the much younger population in the Kitikmeot.

In addition to the above overall indicators of health status, there are a number of individual statistics that stand out as distinct for Nunavummiut as compared to the Canadian population as a whole. This includes a lower life expectancy, a higher infant mortality rate, a higher incidence of low birth weight, higher smoking rates, higher rates of infant respiratory tract infections, higher rate of tuberculosis, and high rates of sexually transmitted infections (STIs) such as chlamydia and gonorrhoea (NTI 2008).

Table 9.1-2. Prevalence of Selected Chronic Conditions, 2006

Community	Proportion of Population (% 15 years and over)				
	Arthritis or Rheumatism	Digestive Problems	Respiratory Problems	Cardiovascular Problems	Communicable Disease
Cambridge Bay	20%	10%	11%	18%	8%
Kugluktuk	10%	9%	7%	15%	7%
Gjoa Haven	13%	11%	11%	21%	n/a
Taloyoak	12%	12%	n/a	27%	n/a
Kugaaruk	13%	11%	11%	21%	n/a

Notes: n/a = data not available. Communicable diseases include Hepatitis, Tuberculosis, or HIV/AIDS.
Source: Statistics Canada (2008a).

The 2007/2008 Inuit Health Survey (also named "Qanuqitpit? Qanuippitali? Kanuivit?" "How about us? How are we?") was the first comprehensive examination of Inuit health in the Inuvialuit Settlement Region, Nunavut, and Nunatsaivut. The survey collected information about the health and wellness of Inuit adults, children, and communities throughout the North. Methods included questionnaires and clinical tests, with separate focuses for adults and children. The adult Inuit Health Survey involved questionnaires about household crowding and food security, nutrition, country food and eating habits, mental health and community wellness, and medical history. The Child Inuit Health Survey looked at the health of children, ages 3-5, with a focus on nutritional health, healthy growth and bones, vision, and medical history (Nunavut Inuit Health Survey 2012). The survey topics can be considered as overall health status indicators.

Key health issues identified in results of the 2007-08 Inuit Health Survey included food insecurity and poor diet quality. Food security is a condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Egeland et al. 2010).

Food insecurity was identified in 62.6% of Inuit households. Adults from food insecure households had a significantly lower Healthy Eating Index score and consumed a greater percent of energy from high-sugar foods than adults from food secure households (Huet, Rosol and Egeland 2012). The results of the Inuit Child Health Survey, 2007-2008, also found lack of food security to be a key health concern for young Inuit children, with nearly 70% of Inuit pre-schoolers residing in households rated as food insecure (Egeland et al. 2010; NTI 2010). Over the long term, food insecurity and poor diet quality can exacerbate the risk of diet-related chronic diseases (Huet, Rosol and Egeland 2012).

Food insecurity was associated with household crowding, income support, public housing, single adult households, and having a home in need of major repairs. The prevalence of having an active hunter in the home was lower in food insecure compared to food secure households (Huet, Rosol and Egeland 2012).

9.1.3 Health Care Utilization

The level of health care utilization is also an indicator of overall health because it is a measure of the extent to which the population seeks health care services. Community health centre utilization statistics for the Kitikmeot Region are shown in Table 9.1-3.

Table 9.1-3. Community Health Centre Utilization, 2005/2006

Community	Visits to Sick Clinic	Visits to Prenatal Care	Chronic Disease Visits	Well Child Visits	Well Woman Visits	Well Man Visits	Total Visits
Cambridge Bay	6,789	216	1,337	349	185	18	8,911
Kugluktuk	7,051	246	831	454	135	13	8,904
Gjoa Haven	6,456	239	1,571	232	159	8	8,747
Taloyoak	5,067	183	584	330	72	8	6,246
Kugaaruk	5,218	226	541	214	59	0	6,301

Note: At the time of the writing of this report, community information was in the process of being updated by the Nunavut Department of Health and Social Services to include more recent statistics.
Source: Nunavut Department of Health and Social Services (2008a).

The vast majority of visits are for primary care due to illness or injury. Other health centre utilization categories, shown in Table 9.1-3, are associated with public health programs. Of these, the most heavily utilized is the chronic disease program. It is also noteworthy that the number of visits for the Well Man Program (Section 9.3.2) is extremely low compared to participation in Well Woman and Well Child. In general, men are more reluctant to access the health services that are available to them (C. Evalik, pers. comm.).

Based on census information, statistics for those who report accessing health care providers sometime over the last year are shown in Table 9.1-4. Visits to a nurse occurred for a substantial proportion of the population, being highest in the smallest communities of Taloyoak and Kugaaruk. Access to the specialized care of a doctor or dentist or orthodontist occurred much less frequently.

Table 9.1-4. Access to Health Care Providers in the Last 12 Months, 2006

Community	Proportion of Population (% 15 years and over)			
	Doctor	Nurse	Dentist / Orthodontist	Other Health Professional
Cambridge Bay	44%	67%	41%	52%
Kugluktuk	40%	72%	48%	45%
Gjoa Haven	29%	71%	49%	52%
Taloyoak	39%	80%	51%	43%
Kugaaruk	37%	84%	58%	50%

Source: Statistics Canada (2008a).

9.1.4 Suicide

Suicide has been a prominent social issue in Nunavut communities. The extent to which death by suicide has occurred and the degree of suicide-related trauma is far greater than that experienced by many other jurisdictions (Government of Nunavut 2010). For example, in 2009 across Nunavut the RCMP reportedly responded to a total of 983 calls where persons were threatening or attempting suicide (Government of Nunavut 2010). Nunavut-wide rates of suicide ideation (thoughts of committing suicide) and suicide attempts are shown in Table 9.1-5.

The recent number of suicides in Kitikmeot communities is shown in Table 9.1-6. The rate has been particularly high in Kugluktuk (average annual rate of 190) followed distantly by the other communities, with Gjoa Haven the lowest at an annual average rate of 52. Young Inuit men typically make up the largest proportion of these deaths (Government of Nunavut 2010).

Table 9.1-5. Nunavut-wide Rates of Suicide Ideation and Attempts

Suicide Ideation (within past week)	Share of Respondents (%)	Suicide Attempt (within last six months)	Share of Respondents (%)
None	56.4%	Never	70%
Sometimes	40.0%	Once	14%
Very often	2.6%	Several	13%
All the time	0.0%	Many	3%

Source: Haggarty et al. (2008)

Table 9.1-6. Suicides in Kitikmeot Communities, 1999-2008

Community	Total Number of Suicides	Average Annual Rate (per 100,000 population)
Kugluktuk	22	190
Cambridge Bay	7	65
Gjoa Haven	5	52
Kugaaruk	5	80
Taloyoak	5	70

Source: Hicks (2009).

The high suicide rates in Nunavut have been attributed to the rapid social change that has occurred and the sense of discontinuity and loss of self-reliance that this has caused. The identified risk factors for suicide include: personal characteristics of depression, deficits in problem-solving skills, and substance abuse; situational factors of living in a troubled family, physical or sexual abuse, loss of a parent or caregiver, and exposure to suicidal acts of family or friends; social network, including loss of a relationship, isolation, and inter-personal problems; and socio-cultural factors of poverty, social disorganization, and loss of tradition. Factors that have been identified to reduce the likelihood that an individual will consider suicide include having a stable home life, being educated, being employed, and the receipt of mental health care as required (Government of Nunavut 2010).

In response to the need to more effectively address suicide in Nunavut communities, the Government of Nunavut, Nunavut Tunngavit Inc. (NTI), the Embrace Life Council, and the RCMP have worked together to develop the Nunavut Suicide Prevention Strategy. Commitments under this strategy include: (1) a more focused and active approach to suicide prevention; (2) strengthening of mental health services (especially in relation to accessible and culturally-appropriate care); (3) better equipping youth to cope with adverse life events and negative emotions; (4) delivering suicide intervention training; (5) supporting research to better understand suicide in Nunavut and the effectiveness of suicide prevention strategies; (6) communicating and sharing information with Nunavummiut; (7) fostering opportunities for healthy development in early childhood; and (8) support for communities to engage in community development activities (Government of Nunavut 2010).

Overall, the commitments are aimed at increasing the participation of youth and families in projects and activities that promote mental health, increase community awareness and knowledge of healthy behaviours, increase community levels of ownership and capacity to identify and address issues, and improvement in public service provisions. In addition, governments are also undertaking other initiatives to improve mental wellness and address some of the causes of social discontinuity at the community level, activities include: on-the-land camps for youth, sport and recreation activities,

substance abuse information programs, development of community wellness plans, and provision of wellness worker training. These initiatives are guided by Inuit Qaujimajatuqangit.

9.2 CRIME

Total police-reported incidences of crime for 2009 are provided in Table 9.2-1. Total violations are greatest in Cambridge Bay, which also has the highest overall crime rate. Non-violent crimes, which include break and enters (B&Es), possession of stolen property, theft, and fraud, have the greatest rate of all types of crime, again with Cambridge Bay having the highest rate followed by Kugluktuk and Gjoa Haven (Table 9.2-1). The rate of violent crime (i.e., homicide, attempted murder, assault, sexual assault, and robbery) is also greatest in Cambridge Bay, followed closely by Gjoa Haven. Comparatively, crime rates were substantially lower in Kugaaruk and, to a lesser extent, Taloyoak (Table 9.2-1).

From 1999 to 2009 across the Kitikmeot Region, violent and non-violent crime rates increased, peaking in 2003 and 2004, and showing a mainly downward trend thereafter (Tables 9.2-2 and 9.2-3). The notable exceptions were the 2008 and 2009 increases in violent crime and the persistence of a relatively high rate of non-violent crime in Cambridge Bay, the 2009 sharp increase in violent crime in Gjoa Haven, and the increase in the non-violent crime rate in Gjoa Haven and Taloyoak. Over time, Kugarruk stands out as persistently having the lowest rates of violent and non-violent crimes (Tables 9.2.2 and 9.2-3).

For other violations (i.e., mischief, bail violations, disturbing the peace, arson, and offensive weapons) and federal statute violations (including drug-related offenses) Cambridge Bay again stands out as having the highest crime rates from 1999 to 2009 (Tables 9.2-4 and 9.2-5). Kugluktuk, in particular, had relatively high rates of other violations from 2003 through 2006, which has since decreased substantially. In other communities, crime patterns are less evident and have, in many instances, shown substantial fluctuations (Tables 9.2-4 and 9.2-5).

The types of crimes reported in statistics (Tables 9.2-1 to 9.2-5) correspond to the results of interviews with representatives of the local RCMP detachments. Crime in the Kitikmeot communities was described as primarily consisting of family violence or domestic assaults, sexual assaults, thefts (mainly of ATVs and snowmobiles), B&Es, liquor and drug violations, and mischief (i.e., disturbing the peace, property damage; J. Atkinson, pers. comm.; P. Bouchard, pers. comm.; C. Gauthier, pers. comm.; D. Malakhov, pers. comm.; L. Sharbell, pers. comm.). Bullying, as well as physical and sexual abuse, are issues faced by youth, while drug and alcohol abuse and family violence cross all age groups (L. Sharbell, pers. comm.). Women are often the target of abuse by men (C. Gauthier, pers. comm.). Abuse of the elderly was also reported as being an issue in some communities (D. Malakhov, pers. comm.).

In addition to the police-reported incidences (Tables 9.2-1 to 9.2-5), the RCMP respond to a number of calls for service over the course of a year. For example in Taloyoak there were a total of 202 reported violations in 2009 (Table 9.2-1), but police officers responded to 598 calls for service (P. Bouchard, pers. comm.). In Kugaaruk, there were 266 calls in 2010 (J. Atkinson, pers. comm.). Many responses to calls do not result in a recordable offense. For example, RCMP will intervene when there is an issue that arises because of an individual who requires mental health care (D. Malakhov, pers. comm.) or in order to serve as a social worker (J. Atkinson, pers. comm.). Moreover, as previously discussed, the RCMP in Arctic communities often provide services that are beyond those that are formally part of their duties, such as first response to accident scenes and the transportation of patients to the community health centre.

Table 9.2-1. Police-reported Incident by Type of Offence, 2009

Community	Criminal Code Offences								Federal Statutes		Total Violations	
	Violent Crime		Non-violent Crime		Other Violations		Traffic					
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cambridge Bay	270	169	612	382	283	177	38	24	36	22	1,239	774
Kugluktuk	178	128	297	213	111	80	15	11	28	19[E]	629	451
Gjoa Haven	182	162	214	191	64	57	15	13	7	6	482	430
Taloyoak	58	66	88	101	25	29	2	2	4	5	177	202
Kugaaruk	17	23	17	23	4	6	0	0	0	0	38	52
Kitikmeot Region	705	123	1,228	214	487	85	70	12	75	13	2,565	447
Nunavut	3,011	94	5,415	168	3,726	399	362	11	323	10	12,837	399

Notes: rate is the number of offences per 1,000 people, based on 2009 population estimates of police jurisdictions. Violent crime involves the use or threatened use of violence against a person, including homicide, attempted murder, assault, sexual assault, robbery, and abduction. Non-violent crime includes unlawful acts against property such as breaking and entering, possession of stolen property, theft, and fraud. Other violations include mischief, bail violations, disturbing the peace, arson, prostitution, and offensive weapons. Traffic offences include dangerous or impaired operation of a motor vehicle and driving a motor vehicle while prohibited to do so. Federal statues include drug-related offences.
E = estimated due to error in original data source.
Source: Nunavut Bureau of Statistics (2010b).

Table 9.2-2. Rate of Police-reported Violent Crimes, 1999 to 2009

Community	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge Bay	74	121	143	143	174	156	130	146	127	200	169
Kugluktuk	68	101	109	175	229	234	156	169	125	112	128
Gjoa Haven	43	37	56	74	112	74	118	45	67	73	162
Taloyoak	46	38	56	87	55	115	136	125	78	78	66
Kugaaruk	46	30	16	33	80	75	37	31	46	33	23
Kitikmeot Region	58	76	88	115	145	142	123	113	96	114	123
Nunavut	69	79	88	91	103	100	94	85	91	97	94

Notes: rate is the number of offences per 1,000 people, based on 2009 population estimates of police jurisdictions. Violent crime involves the use or threatened use of violence against a person, including homicide, attempted murder, assault, sexual assault, robbery, and abduction
Source: Nunavut Bureau of Statistics (2010b).

Table 9.2-3. Rate of Police-reported Non-violent Crimes, 1999 to 2009

Community	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge Bay	224	284	283	287	346	281	334	398	331	341	382
Kugluktuk	65	123	141	224	268	356	205	339	272	179	213
Gjoa Haven	75	102	101	76	84	98	60	58	82	124	191
Taloyoak	40	44	40	95	106	123	120	75	41	58	101
Kugaaruk	21	47	20	56	78	83	29	19	47	43	23
Kitikmeot Region	102	142	141	171	203	213	175	217	187	178	214
Nunavut	84	97	117	129	159	167	148	138	137	158	168

Notes: rate is the number of offences per 1,000 people, based on 2009 population estimates of police jurisdictions. Non-violent crime includes unlawful acts against property such as breaking and entering, possession of stolen property, theft, and fraud.
Source: Nunavut Bureau of Statistics (2010b).

Table 9.2-4. Rate of Police-reported Other Violations, 1999 to 2009

Community	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge Bay	32	37	59	74	92	101	109	204	218	206	177
Kugluktuk	25	71	90	139	185	174	133	142	103	66	80
Gjoa Haven	19	18	23	14	38	23	39	22	42	51	57
Taloyoak	10	19	27	26	39	48	91	72	23	65	29
Kugaaruk	5	7	2	9	29	35	6	15	4	7	6
Kitikmeot Region	21	35	47	63	88	87	85	108	98	95	85
Nunavut	194	224	272	311	367	385	366	331	320	372	399

Notes: rate is the number of offences per 1,000 people, based on 2009 population estimates of police jurisdictions. Other violations include mischief, bail violations, disturbing the peace, arson, prostitution, and offensive weapons.
Source: Nunavut Bureau of Statistics (2010b).

Table 9.2-5. Rate of Police-reported Federal Statute Violations, 1999 to 2009

Community	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Cambridge Bay	8	3	7	6	6	9	3	10	12	13	22
Kugluktuk	2	2	1	4	7	5	0	0	3	2	0
Gjoa Haven	2	8	16	4	4	3	1	3	4	4	6
Taloyoak	7	3	4	13	9	16	42	8	2	8	5
Kugaaruk	5	3	2	8	14	9	0	0	6	4	0
Kitikmeot Region	8	10	8	7	8	10	9	9	9	12	13
Nunavut	7	10	12	11	10	11	10	8	7	10	10

Notes: Rate is the number of offences per 1,000 people, based on 2009 population estimates of police jurisdictions. Federal statues include drug-related offences.
Source: Nunavut Bureau of Statistics (2010b).

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There are a number of underlying issues that are believed to attribute to crime in the Kitikmeot communities. The overcrowding of houses places stress on individuals and families, leading to family violence and substance abuse issues (L. Sharbell, pers. comm.). Much of the crime has been related to the abuse of alcohol and drugs (J. Atkinson, pers. comm.; P. Bouchard, pers. comm.; C. Gauthier, pers. comm.; D. Malakhov, pers. comm.; L. Sharbell, pers. comm.). Marijuana is the main drug that is available within Kitikmeot communities, but there are indications that this may be changing, particularly for the larger communities such as Cambridge Bay where cocaine and crack cocaine are appearing (C. Gauthier, pers. comm.). In terms of crimes committed by youth, boredom is believed to be the main reason there is a prevalence of ATV and snowmobile thefts, damage of property, B&Es, and mischief calls (J. Atkinson, pers. comm.; P. Bouchard, pers. comm.; L. Sharbell, pers. comm.). There is typically an increase in crime during the winter months when individuals are confined within the community and within homes, particularly during the holiday season (L. Sharbell, pers. comm.). The community health and wellness issues that contribute to crime and safety issues are described in Section 9.3.

9.3 WELL-BEING

9.3.1 Community Well-being Index

Well-being is a broad concept that considers the overall wellness of individuals affected by the complex interactions involving social, economic, and cultural factors. AANDC (formerly INAC) publishes an index of Community Well-being (CWB; INAC 2010b). The index is composed of various indicators for socio-economic well-being, including education, labour force activity, income, and housing derived from Statistics Canada's population census information. The index scores can then be used to compare well-being, as measured by the index, across Aboriginal and other Canadian communities (INAC 2010b).

For 2006, the most recent data available, Nunavut had an overall CWB index score of 65.1, the lowest of all the Canadian provinces and territories. The next lowest score was Newfoundland and Labrador at 75.4, and the highest score was the Province of Alberta at 84.3; the Northwest Territories scored 79.0 (INAC 2010b).

Overall, the Kitikmeot communities were positioned low on the CWB index (Table 9.3-1). Taloyoak, Kugaaruk, and Gjoa Haven scored very low (53, 55, and 56, respectively). Kugluktuk scored near the average for Nunavut as a whole, while Cambridge Bay fared somewhat better at 73, although still below the score for the other Canadian provinces and territories.

Table 9.3-1. Community Well-being Index for Kitikmeot Communities, 2006

Community	Income Score	Education Score	Housing Score	Labour Force Activity Score	CWB Score
Cambridge Bay	85	43	80	85	73
Kugluktuk	75	33	75	75	64
Gjoa Haven	67	26	59	74	56
Taloyoak	62	27	54	70	53
Kugaaruk	61	29	52	75	55

Source: INAC (2010b).

9.3.2 Wellness Programs

Hamlets in the Kitikmeot Region each operates a wellness centre and administer programs aimed at promoting healthy living habits and the development of community. These programs also work closely

with health care, social services, and the RCMP (Section 8.2). Within each community there is a variety of programs for men, women, children, and Elders on the subjects of family violence, addictions, relationship issues, trauma, and suicide prevention, among others (M. Ingram, pers. comm.). However, assistance may be provided to members of the community at many levels, even outside of programs' areas of focus (B. Almon, pers. comm.).

Wellness programs aim to take a holistic approach to improving the health and well-being of members of the community. In addition to the health care and crime issues discussed in Sections 9.1 and 9.2, a number of community health and wellness issues were identified during field studies. These are summarized in Table 9.3-2.

Table 9.3-2. Kitikmeot Community Health and Wellness Issues

Segment of the Population	Identified Health and Wellness Issues
Infants and Children	• Poverty and overcrowding in the home • Family violence • Poor parenting skills • Poor nutrition and food security • Dental health
Youth	• Bullying • Family violence • Boredom • Abuse • Substance abuse • Obesity • Suicide and suicide ideation • Poor nutrition and food security
Young Adults	• Loss of identity • Boredom • Substance abuse • Gambling • STIs • Mental illness • Lack of life skills, education, and training
Adults	• Substance abuse • Gambling • Family violence • Violence against women • STIs • Mental illness • Lack of life skills, education, and training
Elders	• Abuse • Overcrowding in homes • Social isolation • Residential school legacy

Source: B. Almon, pers. comm.; T. Ennis, pers. comm.; R. Joseph, pers. comm.; M. Ingram, pers. comm.; L. Krejunark, pers. comm.; R. Kamookak, pers. comm.; R. Okpik, pers. comm.

In order to help address these issues (Table 9.3-2), community wellness programs have been implemented that include the following programs, among others (B. Almon, pers. comm.; M. Ingram, pers. comm.; L. Krejunark, pers. comm.; R. Kamookak, pers. comm.; R. Okpik, pers. comm.).

- Prenatal care – administered under the federally-funded Canadian Prenatal Program (CPNP), the program provides instruction in nutrition, cooking, sewing, and the use of country foods.
- Aboriginal Head Start – a pre-school program developed by the Government of Canada to promote child health by supporting their physical, personal, and social development (Public Health Agency of Canada 2011). The focus of the program is on early intervention, covering a number of components, including education, health promotion, culture and language, nutrition, social support, and parental involvement. Children do not need to be considered at risk to attend this type of pre-school.
- Children – administered under the Canada Action Program for Children, the initiative is focused on providing food and education services. Other services offered through the program include arts and crafts, story time, and Moms and Tots drop-in sessions.
- Youth – activities for youth are typically offered through a youth centre. The centre provides structured activities, such as sports, games, and movie nights, to provide youth with options and activities away from the home environment. The community of Kugluktuk no longer operates a youth centre because of a recent loss of funding (B. Almon, pers. comm.; D. LeBlanc, pers. comm.).
- Elders – group activities for Elders are typically offered at an Elders Palace. Healthy Foods North is another initiative available to Elders (including food delivery to the home). In addition, there is a new Residential School Survivor Program being offered through Health Canada that provides assistance to those living through the legacy of residential schools.
- Family violence – services include emergency shelter services for women and children, and the delivery of support programs. Shelters are not currently operating in all communities. A three-bedroom shelter is operating in Cambridge Bay, as well as a group home for children in foster care (C. Evalik, pers. comm.). A four-bedroom shelter in Kugluktuk no longer operates because of a recent loss of funding (B. Almon, pers. comm.; D. LeBlanc, pers. comm.). Kugaaruk is currently using an older one-bedroom RCMP accommodation trailer that has been converted for shelter use, although a better suited facility is required (L. Krejunark, pers. comm.); a house has been recently designated by the Nunavut Housing Corporation to serve as a women's shelter, although renovations are required before it can become operational (J. Atkinson, pers. comm.). There is no shelter or safe house in Gjoa Haven (T. Ennis, pers. comm.). When shelter space is not available in the community, those in need may be sent out of the community to the Alison McAteer House in Yellowknife (L. Krejunark, pers. comm.).
- Alcohol, gambling, and drug additions – locally, programs consist of counselling services and public education and awareness campaigns. May include Alcoholics Anonymous (AA) and Alateen programs (i.e., weekly discussion group for teens with abuse in family due to alcohol abuse). The majority of drug use in communities reportedly consists of marijuana use, although there are indications that other drugs such as cocaine, ecstasy, and crystal meth are beginning to emerge in the larger western communities of Cambridge Bay and Kugluktuk (B. Almon, pers. comm.). Except for the counselling and support offered through hamlet wellness programs, addictions treatment services are not provided by the Department of Health and Social Services in the Kitikmeot Region and individuals requiring treatment are sent to the South (C. Evalik, pers. comm.).

As is the case for health care and social services, attraction and retention of staff for the delivery of wellness programs continues to be a challenge. In addition, funding commitments are annual, resulting in a lack of program continuity and stability (B. Almon, pers. comm.). Relationships between clients and wellness workers or counsellors take time to develop, and individuals often feel reluctant to open up if they suspect that workers will not stay in the community long. It is important for individuals to trust and feel comfortable with the person that they are going to for assistance, and the longer that someone stays in the community, the greater the chance of establishing a positive relationship (B. Almon, pers. comm.; L. Krejunark, pers. comm.).

10. Culture

10. Culture

10.1 CULTURAL PHILOSOPHY AND WORLD VIEW

The cultural philosophy of the Inuit people has developed over many generations of intimate engagement with the land. Inuit cultural traditions and world view are propagated through the intergenerational transmission of Inuit Qaujimajatuqangit. Inuit Qaujimajatuqangit refers to "the traditional, current, and evolving body of Inuit values, beliefs, experience, perceptions, and knowledge regarding the environment, including land, water, wildlife and people, to the extent that people are part of the environment" (Qikiqtani Inuit Association 2009). The *Inuit Qaujimajatuqanginnut* Task Force (2002) has recently identified the following guiding principles associated with Inuit Qaujimajatuqangit in its traditional context:

- *Pijitsirnjiq* – the concept of serving (a purpose or community) and providing for (family and/or community);
- *Aajiiqatigiingni* – the Inuit way of decision-making; the term refers to comparing views or taking counsel;
- *Pilnimmaksarniq* – the passing on of knowledge and skills through observation, doing, and practice;
- *Piliriqatigiingniq* – the concept of collaborative working relationships or working together for a common purpose;
- *Avatittinnik Kamattiarniq* – the concept of environmental stewardship; and
- *Qanuqtuurniq* – the concept of being resourceful to solve problems.

These principles, as understood in their cultural context, describe the nature of the relationships that are essential to Inuit culture, world view, and Inuit Qaujimajatuqangit. There are four relationship types of particular importance to the Inuit culture: relationships between the people and their land and, as such, their culture; relationships between family members; relationships between individuals and their own internal Spirit; and relationships between individuals and their social groups (e.g., communities and organizations) and between social groups (Inuit Qaujimajatuqannut Task Force 2002). These relationships, in conjunction with the principles noted above, are the foundations for Inuit cultural philosophy and Inuit Qaujimajatuqangit; their existence helps to ensure the sustainability of Inuit culture into the future.

The relationship with the land is the foundation for the Inuit culture; it is a relationship upon which other aspects of culture are built. Avatittinnik Kamattiarniq refers to environmental stewardship, in the context of intimate human-environment relations, where humans are integrated within the "land community." Qanuqtuurniq provides Inuit with opportunities for self-fulfilment as they experience the land, which also provides the potential for learning, healing, nourishment, propagation, and child rearing. For Inuit, survival and existence are deeply rooted in their relationships with the land.

Family relationships in Inuit culture set the stage for child development, prosperity, marriage, Elder care, communities, and coalitions. These relationships play an important role in the survival of the Inuit on the land. Pijitsirnjiq defines the obligations an individual, especially leaders, have to ensure the survival and well-being of family and community through service. Children must self-actualize within the context of the family and community relations in which they are raised to develop a healthy relationship with their

inner Spirit. The relationship with the inner Spirit manifests in the form of a strong sense of personal worth and identity and is fostered by Pilnimmaksarniq, or the ability to learn, adapt, act, and practice skills for survival in constantly changing and harsh conditions. The relationships between individuals and their groups and between different groups are the foundations for strong communities, and as such, strong Inuit culture. Piliriqatigiingniq and Aajiiqatigiingni articulate the Inuit reliance on collaborative problem solving and consensus-based decision making to ensure the resilience of both their communities and culture (Inuit Qaujimajatuqannut Task Force 2002).

10.2 LANGUAGE

There are two Inuit languages in the Kitikmeot – Inuinnaqtun and Inuktitut. Inuinnaqtun is spoken primarily in the western Kitikmeot communities of Cambridge Bay, Kugluktuk, Umingmaktok, and Bathurst Inlet. Residents of these communities are traditionally of Copper Inuit decent. The eastern Kitikmeot communities of Gjoa Haven, Taloyoak and Kugaaruk are primarily descendants of the Netsilik Inuit and mainly speak Inuktitut, as does the rest of Nunavut. However, there is enough commonality between the languages for the Inuit to understand each other in either tongue, most of the time.

Knowledge of Aboriginal language is reported to be strong in all the communities (Table 10.1-1). The proportion of people who reported their mother-tongue to be a language other than English or French ranges from 30% in Cambridge Bay to 66% in Kugaaruk. The most frequent Aboriginal language is Inuktitut, but 9% of the population in Cambridge Bay and 12% in Kugluktuk reported their mother tongue to be Inuinnaqtun (Nunavut Bureau of Statistics 2008b).

Table 10.1-1. Mother Tongue by Community, 2006

Mother Tongue	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
Inuktitut only	20%	18%	42%	64%	66%
Inuinnaqtun only	9%	12%	0%	0%	0%
English only	66%	68%	55%	35%	33%
French only	1%	0%	0%	0%	0%
Other language only	3%	1%	1%	1%	0%
English and non-official language	1%	1%	2%	0%	0%
Other multiple responses	0%	1%	0%	0%	0%

Note: that numbers may not add up due to rounding error at the source.
Source: Nunavut Bureau of Statistics (2008b).

The proportion of people who reported to often use Inuktitut or Inuinnaqtun at home is lower than the proportion of people who reported having these languages as a mother tongue. In Cambridge Bay and Kugluktuk, only 9% of population speaks an Aboriginal language at home, while in Gjoa Haven, Taloyoak, and Kugaaruk this proportion increases to 14%, 21%, and 22%, respectively (Statistics Canada 2007). The language that is most often spoken at home in all the communities is English. Only 1% of population in Cambridge Bay uses French as a frequent language, and French is reportedly not used in any of the other communities.

10.3 LAND USE AND COUNTRY FOODS

Traditional activities, including hunting, fishing, trapping, and gathering are of great importance in Kitikmeot communities. Participation in country foods harvests and consumption of country foods continue to be critical elements of the culture. As was emphasized during the interviews conducted as part of this study, the harvesting of country foods “means life” and is an essential part of society, culture, and health (B. Sitatak, pers. comm.). The use of the land and eating of animals and fish is very

important to Nunavummiut (J. Avalak, pers. comm.). The sharing of the harvest strengthens and upholds community and family relations and values, especially as country foods are more shared than store bought foods. Importantly, country foods provide food security to elders and single parent families through the sharing beyond the hunter's immediate household.

The characteristics and patterns of land use are described in Chapter 13. As presented in Section 6.3 (Subsistence Economy), the proportion of the community that participates in hunting ranges from a low of approximately 62% in Cambridge Bay to a high of 82% in Kugaaruk; for fishing the range is from 68% in Cambridge Bay to 92% in Taloyoak and Kugaaruk, and for plant gathering the range is from 29% in Gjoa Haven to 89% in Kugluktuk (Table 6.3-1; Statistics Canada 2008a, 2008b).

As outlined in Section 6.3.2 (Use of the Harvest), harvested animals are used for a variety of purposes, but first and foremost they are used as food for the community. The main species that people eat from the land use LSA are caribou and fish, including Arctic char, trout, and whitefish (J. Avalak, pers. comm.; Land use focus group participants, pers. comm.). Country foods consumption also includes muskox, birds and birds eggs (e.g. geese, ducks swans, ptarmigan), and, for some communities, seal, grizzly bear, polar bear, narwhal, and bowhead whale. Land users from Umingmaktok, the community closest to the proposed Project location, noted that seal is not a big part of their diet. Their diet is mostly caribou (Land use focus group participants, pers. comm.). Focus group participants noted that they prefer not to eat the same food every day, and thus alternate between foods such as fish, caribou and muskox (M. Avalak, pers. comm.).

Country foods are always available in Kitikmeot communities and, for many, continue to be eaten on a daily basis. This is particularly true for the smaller, eastern communities of Kugaaruk and Taloyaok, which are more traditional (S. Qingnaqtuq, L. Nakoolak and P. Qayatinuak, pers. comm.; M. Uqqarqluk, pers. comm.). At a 2003 Inuit Qaujimajatuqangit workshop, Elders from Umingmaktok, Bathurst Inlet, Kugluktuk, and Cambridge Bay stated that most of their food comes from the land (NPC 2004). In Gjoa Haven and Cambridge Bay, most people reportedly still eat country foods every day, which are sometimes mixed with store bought foods (T. Carter, pers. comm.; B. Sitatak, pers. comm.). Statistics indicate at least half of the meat and fish that is eaten in the household by 66% of Inuit adults (aged 15 years and over) across Nunavut is country foods (Statistics Canada 2008b).

Each year, HTOs in each community conduct the community harvest, for which they are provided an annual allocation. Caribou, muskox, and Arctic char are currently part of the community harvest for Cambridge Bay, and there are plans to also introduce seal in the near future (B. Sitatak, pers. comm.). At times, muskox meat may also be provided to the community from sport hunts (sport hunters typically only take the head and hide as a trophy). Community harvests are not sold for income, but are freely shared among members of the community.

Usually, all Kitikmeot communities are able to harvest enough country foods to meet the community needs (T. Carter, pers. comm.; B. Sitatak, pers. comm.). However, there have been years when the community harvest has not been plentiful in certain communities, and they have had to purchase country foods, such as caribou, from other communities (B. Sitatak, pers. comm.). For example, in a recent year Gjoa Haven had to purchase 60 caribou carcasses from Cambridge Bay (T. Carter, pers. comm.).

10.4 CULTURAL KNOWLEDGE AND EDUCATION

Maintaining cultural knowledge and education, particularly as it relates to land use, is critical to sustaining Inuit culture. Active participation in subsistence activities, by current knowledge holders and youth, helps to protect Inuit Qaujimaningit and ensure that traditional knowledge is transferred to

subsequent generations. In short, the use of Inuit Qaujimaningit "…acts to conserve traditional skills, conserve biodiversity in the environment, and sustains economic security" (NPC 2004). This is critical to maintaining the traditional way of life and cultural values.

The importance of passing on knowledge to younger generations is recognized (B. Sitatak, pers. comm.). Kitikmeot communities are currently ensuring that knowledge is transferred in a number of ways. Community members still travel to traditional hunting and fishing camps, in which youth participate (B. Sitatak, pers. comm.). Elders teach young people to hunt and be on the land, and young people are also learning the Inuit culture from their parents and grandparents (J. Avalak, pers. comm.). Communities organize Elders' camps in which youth are taken out on the land for a week or two at a time at different seasons; camp activities focus on fishing in the summer and fall and sealing and caribou hunting in the spring (M. Uqqarqluk, pers. comm.). The camps are reportedly working well, as young people are getting involved and showing an interest in learning how to hunt and fish. The Taloyoak HTO has a hunter's cabin, the main purpose of which is to teach the younger generation land use skills (S. Qingnaqtuq, L. Nakoolak, and P. Qayatinuak, pers. comm.). Youth may also participate in sport hunts, working with the guide outfitters (J. Avalak, pers. comm.). By participating in these hunts, they also learn land use skills and traditional knowledge.

There are also more formal programs available to youth. Through the NTI Nunavut Harvester Support Program (HSP), the Atugaksait Program provides financial assistance for teaching survival skills, harvesting knowledge, or traditional sewing techniques to support the preservation of Inuit harvesting knowledge and lifestyle at the community level (NTI 2011a). This life skills program helps to remove any financial barriers youth may face in gaining the skills and knowledge to go out on the land. The Out on the Land education program offered by the public schools also provides opportunities for youth (B. Sitatak, pers. comm.).

With the continuing development of the local market economy and the increasing connectedness with people, businesses, and cultures from outside of Nunavut, Nunavummiut have had to deal with a substantial amount of change within their communities. Rapid change can lead to social issues and conflict, as well as the loss of traditional knowledge as lifestyles change. During interviews conducted as part of this study, it was reported that the transfer of Inuit Qaujimaningit to younger generations is currently working well, as there has been more young hunters in recent years (B. Sitatak, pers. comm.), but some are concerned that many youth in Kitikmeot communities are not taking up hunting and that this knowledge may be lost as Elders pass away (T. Carter, pers. comm.).

11. Governance and Government Revenues

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11. Governance and Government Revenues

11.1 TERRITORIAL GOVERNANCE

11.1.1 Implementation of the Nunavut Lands Claim Agreement

The Territory of Nunavut was established on April 1, 1999 as a territory that is separate from the Northwest Territories. As part of the creation of Nunavut, the Government of Canada negotiated the largest lands claim settlement in Canadian history with the Inuit: the Nunavut Lands Claim Agreement (NLCA), which covers approximately one fifth of Canada's land mass. The Tunngavik Federation of Nunavut, now superseded by NTI, represented the Inuit for the purposes of negotiating the NLCA. The NTI is responsible for ensuring the implementation of the NLCA; it coordinates and manages Inuit responsibilities as described in the NLCA (NTI 2011c).

Nunavut is divided into three administrative regions: the Kitikmeot Region, the Kivalliq Region, and the Qikiqtani Region. Within each region, Regional Inuit Associations (RIAs) are responsible for advancing the rights and benefits of Inuit as guided by the NLCA. The RIAs advocate for Inuit interests and hold legal title to all Inuit-owned surface lands. Along with the NTI, the RIAs are responsible for the management of all IOL in Nunavut. Within the Kitikmeot Region, the RIA is the Kitikmeot Inuit Association (KIA), which has its head offices in Cambridge Bay.

The NTI provides representation for Inuit under the NLCA and implements associated Inuit obligations. Broadly speaking, the NTI is mandated with the pursuit of the economic, cultural, and social well-being of beneficiaries. The NTI is governed by an elected board of directors. There are a number of organizations that have responsibilities to the beneficiaries of the NLCA as coordinated through NTI, which include the following (NTI 2011c).

- Inuit regional development corporations – the regional development corporations focus on realizing business and career development opportunities for Inuit. They aim to encourage entrepreneurship and employment for Inuit through joint ventures, training, and mentoring, in addition to investing in promising businesses and joint ventures in the regions they represent. The main office of the Kitikmeot Corporation is in Cambridge Bay (Kitikmeot Corporation 2011).
- Inuit community economic development corporations – the economic development corporations foster economic development with a focus on small business, the support of entrepreneurs, the development of job skills, and social programs aimed at children, youth, the disabled, and other vulnerable groups. They offer advisory services and microloans to small businesses, assist in the development of an inclusive workforce through provision of childcare services, provide youth with work experience opportunities, and offer training for those hoping to enter the workforce. The office of the Kitikmeot Economic Development Commission (KEDC) is located in Cambridge Bay (KEDC 2011).
- Inuit investment corporations – The Atuqtuarvik Corporation, based in Rankin Inlet, provides debt financing and equity investment for business start-ups, expansions, and acquisitions. The NCC Investment Group Inc., based in Iqaluit, operates as the principle owner of Government of Nunavut buildings and infrastructure. Nunasi Corporation is a Nunavut-wide Inuit-owned development corporation with its head office in Iqaluit and a corporate office in Yellowknife.
- Inuit wildlife organizations – within each community across Nunavut, HTOs are responsible for the management of harvesting. All Inuit in each community are members of the HTO. The

Kitikmeot HTO coordinates the management of wildlife harvests for the region, with representation from each HTO operating in Kitikmeot communities. The Nunavut Inuit Wildlife Secretariat provides logistical, technical, financial, and administrative support to the HTOs.

- Joint institutions of public governance – there are a number of other organizations through which both the Inuit and government have joint management functions. This includes the Nunavut Impact Review Board (NIRB), the Nunavut Planning Commission (NPC), the Nunavut Surface Rights Tribunal (NSRT), the Nunavut Water Board (NWB), and the Nunavut Wildlife Management Board (NWMB), the functions of which are described in more detail below.

The NIRB administers and participates in the environmental and social impact assessment process. There are nine members of the board who evaluate projects for their potential environmental and social impacts based on scientific and traditional knowledge. The board makes recommendations to the federal or territorial ministers about licenses to be issued in the Nunavut Settlement Area. The NIRB is based in Cambridge Bay (NIRB 2011).

The NPC is responsible for land use planning in Nunavut to guide and direct resource use and development (NPC 2011). Plans establish guidelines and rules by which land, fresh water, marine waters, and renewable and non-renewable resources may be used and developed. Plans also specify what types of development can take place and, if applicable, what conditions must be applied in order for the development to occur. The NPC works with the Nunavut and federal governments to develop land use plans through consultation and research with communities, government, Inuit organizations, industry, and NGOs (NPC 2011).

The NSRT, created under the NLCA, regulates access to lands. This includes determining the rights of title-holders and any compensation that is to be paid for land use or purchase. The NSRT is also responsible for determining the amount of compensation that is paid as a result of wildlife claims in the Nunavut Settlement Area.

The NWB is responsible for the use, management, and regulation of inland waters in Nunavut (NWB 2011). Projects with expected impacts on inland water supplies may require licenses from the NWB under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (2002).

The NWMB oversees wildlife management and regulates access to wildlife in Nunavut. The mandate of the NWMB is to ensure the protection and wise use of wildlife and wildlife habitat for the benefit of Inuit and the public. It coordinates its operations with three regional wildlife organizations, as well as the territory's HTOs, to ensure sustainable wildlife populations for the Inuit, the public of Nunavut, and Canada. It also funds wildlife research by government agencies and NGOs; advises the impact review process; promotes wildlife education, training, and awareness; and approves changes to the boundaries of conservation areas (NWMB 2011).

11.1.2 Governance of Nunavut

The Government of Nunavut operates separately from, but often in cooperation with, the organizations that are in place as part of the implementation of the NLCA (Section 11.1.1). The Government of Nunavut includes the following departments.

- Community and Government Services – supports municipal operation, infrastructure development, and land development, as well as fire safety, electrical and mechanical inspections, emergency management, consumer affairs, and acquisition and distribution of petroleum products. The department maintains regional offices in Cambridge Bay, Rankin Inlet, and Cape Dorset (NDCGS 2011).

- Culture, Language, Elders, and Youth – promotes the Inuit language and culture through access to information in Inuit languages; supports culture, the arts, recreation, and sport, and activities that support the territory's Elders and youth (NDCLEY 2011).
- Economic Development and Transportation – is responsible for economic policy, travel (airports and roads), and tourism. The department regulates mining and energy through the Minerals and Petroleum Resources Division. Two Crown corporations – the Nunavut Development Corporation and the Nunavut Business Credit Corporation – report to the Department of Economic Development and Transportation (NDEDT 2011). In the Kitikmeot Region, the department's offices are located in Kugluktuk (Economic Development) and Gjoa Haven (Transportation).
- Education – is responsible for compulsory education, skills development, apprenticeships, and early childhood services. The department also administers an Income Support Program for individuals and families who are unable to meet basic food and housing needs (Nunavut Department of Education 2011). Its regional office is in Cambridge Bay.
- Environment – is responsible for environmental protection, including environmental assessment, land-use planning, solid waste management, and pollution control. The department is also responsible for regulating fisheries and sealing, wildlife management, and for administering Nunavut's 20 designated territorial parks, heritage rivers, and wildlife sanctuaries. It also promotes environmental stewardship education and outreach (Nunavut Department of Environment 2011). A regional office is located in Kugluktuk.
- Executive and Intergovernmental Affairs – provides advice and administrative support to the Government of Nunavut Cabinet, under the direction of the Premier. Through its Deputy Ministers Committee, the department supports the coordination of interdepartmental initiatives. Through its Energy Secretariat, it develops, coordinates, and leads energy policy (Nunavut Department of Executive and Intergovernmental Affairs 2011).
- Finance – the department is the primary advisor to the Government of Nunavut on financial and budgetary matters, including government revenue and spending, taxation, financial advice, and financial policy direction (Nunavut Department of Finance 2011).
- Health and Social Services – is responsible for promoting health and social well-being in Nunavut through provision of medical care, health insurance, child protective services, family violence prevention and protection services, foster care, guardianship, and residential care. The department runs specialized programs to address social and health issues particular to Inuit communities, such as solvent abuse, diabetes, foetal alcohol syndrome, and youth suicide prevention (Nunavut Department of Health and Social Services 2011). The Kitikmeot Region office is located in Cambridge Bay.
- Human Resources – provides recruitment, relocation, job evaluation, training and development, and employee relations support to Nunavut's public service, including Crown corporations that report to the Government of Nunavut, the hospital system, and the education system. The department is also responsible for promoting the employment of Inuit within the public service sector (Nunavut Department of Human Resources 2011).
- Justice – responsible for legal services, correction programs, and community justice. The department also administers boards and tribunals on issues such as human rights and labour standards (Nunavut Department of Justice 2011). A regional office is located in Cambridge Bay.

11.2 HAMLET GOVERNANCE

11.2.1 Hamlet Governance Structure and Functions

Community governance in Nunavut is organized by hamlets. Each hamlet is headed by a mayor, deputy mayor, and council. All substantive government decisions go to council. To facilitate the oversight of municipal policies and programs, committees are established to address specific portfolios (e.g., justice, finance, recreation, and health and wellness). Typically, a member of the council is appointed as chair of each committee and other members of the committees are selected from the population at large, as determined through a public election.

The hamlet bureaucracy is headed by a Senior Administrative Officer (SAO) who has overall responsibility for operations and who reports directly to the council. The SAO is supported by staff who conduct hamlet business. A key senior member of the staff is the Economic Development Officer (EDO), who is responsible for economic development programming.

Hamlets have a number of departments that are responsible for the delivery of the different programs and services. The specific organization of departments can vary by community, but typically covers public works, operations and maintenance, water, sewer, waste management, fire protection, wellness, justice, lands, and economic development.

A summary of the hamlet government structure for each Kitikmeot community is provided in Table 11.2-1.

Table 11.2-1. Hamlet Government in the Kitikmeot Region

Hamlet	Mayor	Senior Administration Officer	Staffing	Committee Portfolios
Cambridge Bay	Syd Glawson	Stephen King	55 full-time 20-40 part-time/casual	Wellness; Municipal Works; Recreation; Finance; Planning and Lands; Economic Development
Gjoa Haven	Allen Aglukkaq	Enuk Pauloosie	Approximately 70 full-time, with additional part time and casual workers	Health and Social Services; Justice; Economic Development; Planning and Lands; Recreation; By-Laws; Labour and Hiring; Finance
Kugaaruk	Makabe Nartok	Andre Larabie	Information not available	Information not available
Kugluktuk	Ernie Bernhardt	Don Leblanc	Approximately 70-100	Recreation; Wellness; Economic Development; Finance; Elders; Justice; Planning and Lands; BHP Billiton Funded Projects; Tourist Centre Construction
Taloyoak	Tommy Aiyout	Chris Dickson	48 full-time 25 part-time/casual	Health; Recreation; Justice; Search and Rescue; Community Economic Development; Buildings; Finance; Elders and Youth

Note: Council composition as of February 2011.
Source: Interviews.

11.2.2 Community Planning

Each Kitikmeot community has adopted a community plan that defines the policies for managing development in a manner that reflects the needs and desires of the community. Goals are specified to

guide the implementation of the community plan and the on-going management of development and provision of hamlet services. Although the community plan for each community differs, goals commonly reflect the following (Hamlet of Kugluktuk 2007; Hamlet of Gjoa Haven 2008; Hamlet of Kugaaruk 2009; Hamlet of Taloyoak 2009):

- creation of a safe, healthy, functional, and attractive community that reflects community values and culture;
- availability of land for a mix of all types of uses to support the growth and change of the community;
- building upon community values of participation and unity, support for community projects and local economic development; and
- protection of the natural beauty of the land, protection of viewpoints to the water, and retention of waterfront and lakeshore areas for public uses and traditional activities.

For the Municipality of Cambridge Bay, the goals of the community plan are more diverse and include statements concerning: protection and enhancement of the natural environment; sustainable development in keeping with the physical, cultural, and economic values of the community; support for a variety of housing options and densities; concentration of public and commercial facilities in a core area; support for the provision of a full range of commercial facilities and services in neighbourhoods; diversification of the local economy; provision of land for a wide range of community uses; provision of a diverse range of recreational and cultural opportunities; development of a safe and efficient transportation system; to preserve lands reflecting traditional knowledge and use; and to create opportunities for public input (Municipality of Cambridge Bay 2007). Cambridge Bay recognizes that community growth will be challenged by limits to the amount of land available for development. The community is currently “hemmed in” by marine waters to the south and southeast, the sewage lagoon and waste dump to the northeast, the federal weather station lands and water supply reserve to the north, Distant Early Warning (DEW) Line reserve lands to the west, and the airport to the southwest; this greatly limits the opportunities for community expansion (S. King, pers. comm.).

11.2.3 Challenges for Hamlets

Hamlet governments in the Kitikmeot Region face a number of challenges. As is evident from the interview results with hamlet staff, one of the primary challenges is staff hiring and retention. For example, as of early 2011 Taloyoak had a number of vacancies in wellness services, including Community Health Representatives (CHRs), Wellness Coordinator, Community Health Development Coordinator, and Alcohol and Drug Worker (C. Dickson, pers. comm.). The Gjoa Haven Wellness Coordinator and Alcohol and Drug Worker positions were also vacant (Anonymous 5, pers. comm.). Other communities had similar vacancy issues. Funding for government staff is also not secured, with all contracts based on one-year terms (C. Dickson, pers. comm.); this adds to the difficulties associated with retaining skilled staff.

Infrastructure is also a continuing issue. As previously discussed (Section 8.1), a lack of housing is perhaps the greatest infrastructure issue facing communities. This can also translate to the government not being able to find housing for staff (C. Dickson, pers. comm.). Government staff often reported that there is a lack of building space in which to carry-out the required functions and provide community services (C. Dickson, pers. comm.). Examples cited included recreation facilities, wellness centre and youth centre space, community halls, and government office space, among others. There are also issues with both the age and condition of some existing buildings. Government of Nunavut buildings face similar challenges. However, progress is being made to address infrastructure shortfalls. For example, Taloyoak is constructing a new hamlet office building and the old building will be

renovated to hold a carvers studio, heritage centre, and business office rental spaces; a youth centre will be built, and the old community hall, arena, and swimming pools are slated for renovations (C. Dickson, pers. comm.). Cambridge Bay is also constructing a new hamlet office, and the waste disposal site and sewage lagoon are being retrofitted and their capacity increased to handle the anticipated population growth of the community (S. King, pers. comm.).

The functioning of government at the hamlet level is also strongly dependent on the working relationship with the Government of Nunavut. The reported experience varies, with some hamlet offices having strong relationships with the government and others having weak relationships, at times requiring the hamlet staff to work through headquarter offices in Iqaluit (C. Dickson, pers. comm.). Overall, hamlet councils drive the development of policies and priorities; however, the Government of Nunavut does assert its authority on some issues, such as the current territorial focus on the development and implementation of the Poverty Reduction Policy. This may place hamlets in a difficult position if they do not have the resources for additional programming to act on these priorities (S. King, pers. comm.).

11.3 GOVERNMENT REVENUES AND EXPENDITURES

11.3.1 Revenues

The Government of Nunavut saw revenues of $1.305 billion in 2009, $108 million (10.4%) of which originated from within the territory. The remaining $1.177 billion (89.6%) came in the form of transfer payments from the Government of Canada. Of the Nunavut-generated government revenue, 34% ($37 million) was income tax and 38% ($41 million) was from sales of goods and services (Statistics Canada 2011b).

Information on royalties and other tax revenues specifically from the mining sector in Nunavut is not readily available from Statistics Canada, AANDC, or the Nunavut Department of Finance.

11.3.2 Expenditures

Total Government of Nunavut expenditures in 2009 totalled $1.300 billion. Health ($285 million or 21.9%) and education ($241 million or 18.5%) were the largest expenditure items. Housing ($180 million or 13.8%), general government services ($151 million or 11.6%), and social services ($105 million or 8.1%) were the next largest expenditure items (Statistics Canada 2011b).

12. Land Use Planning and Designation

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12. Land Use Planning and Designation

12.1 LAND USE PLANNING

The Nunavut Planning Commission (NPC), as established under the NLCA, is currently developing a Nunavut Land Use Plan (NLUP) for all Nunavut regions that are outside of municipal boundaries. The goals of the NLUP are to make the regulatory context transparent, to clearly formalize land use designations and priorities, and to identify areas suitable for ongoing development (C. Dimitruk, pers. comm.). The NLUP will be used to guide and direct resource use and development into the future. Once the NLUP is in place, all projects will be required to conform to it. The NPC decides whether a particular project conforms to a land use plan, and their decision is legally binding. The NPC will complete the NLUP through research, engagement and consultation with communities, the Government of Nunavut, Inuit organizations, industry, and NGOs in a phased approach. Once completed, the NLUP must be approved by the NTI, the Regional Inuit Associations (RIAs), the Government of Nunavut, and the Government of Canada. The NLUP will be periodically reviewed and revised as necessary.

The Nunavut-wide planning approach was adopted to address inefficiencies in the previous regional approach. Until recently, land use planning in Nunavut had been approached regionally, with the intended establishment of six regional land use plans. Two land use plans were finalized and approved (North Baffin and Keewatin) each taking up to five years to complete. This approach was deemed inefficient and was replaced with the current Nunavut-wide approach.

The Hope Bay Belt Project lies within the former West Kitikmeot Regional Land Use Plan (WKRLUP) boundary. The WKRLUP was in draft form before the regional planning process was halted and replaced with the Nunavut-wide approach. In the absence of an approved plan, the values and interests expressed by the WKRLUP from the original regional planning process are considered when determining sustainable development practices.

A future state where the land continues to support the cultural and economic needs of the people, including the harvest of wildlife and convenient and continued access to wildlife areas for harvesters was envisioned during the WKRLUP process (NPC 2004). The plan's core values included: the preservation of Inuit culture and heritage, use of Inuit Qaujimajatuqangit, respect for and protection of the land, sharing of the land and economic benefits, and encouragement of ongoing research and study of the land, people, and their interconnections. A clear recognition of the significance of the detailed knowledge of the land, wildlife behaviours, and land use patterns that local residents possess is apparent in the draft WKRLUP, which is also reflected in the value that is placed on local hiring for development projects. The draft WKRLUP recognized the economic and social benefits that the use of renewable and non-renewable resources can bring, and it also highlighted the need to minimize negative impacts to the people, wildlife, and environment of the region.

The WKRLUP specified tourism as a priority for further economic development in the region and identified various ecotourism opportunities, including dog-sledding and bird watching tours. The importance of local waters – including the Burnside, Mara, and Hood rivers – for rafting and canoeing activities was also identified (NPC 2004).

The Hope Bay Belt Project lies to the west of the Queen Maud Gulf Migratory Bird Sanctuary in an area noted in the WKRLUP to be valued for tourism, fish, and wildlife (including Arctic char, caribou, and muskox; Section 12.3). Valued non-renewable resources in the area include oil and gas and mineral deposits. The Hiukitak River Conservation Area has been identified as an area of particular community

interest (Section 12.3; NPC 2010). The Hope Bay Belt Project also falls within the traditional Areas of Influence (as defined by the WKRLUP) of the communities of Bathurst Inlet, Umingmaktok, and Cambridge Bay. Areas of Influence encompass broad areas of land and sea that are included in traditional land use patterns by community members.

Regional planners together with the Department of Community Government Services have identified land with potential for industrial use near the Cambridge Bay airport, as well as a potential marine port with a barge loading area, and areas that could be zoned for commercial and industrial use. If such infrastructure was developed, mine supplies could be shipped through and warehoused in Cambridge Bay. Currently, however, both physical and mobile infrastructure is limited (C. Dimitruk, pers. comm.). If the needs of the mine and the community increase simultaneously, further infrastructure and transportation may be needed. In order to help with community planning efforts, regional planners are seeking to find out how much commercial and warehouse space mining operations require within local communities (C. Dimitruk, pers. comm.).

One of the main land use planning challenges in Nunavut and the Kitikmeot region is the rapidly growing potential for development activity, particularly mineral development. This stands in contrast to the lack or slow pace of resource development in the recent past. It can be a challenge to adapt to and balance the increasing development pressure with traditional use, environmental and cultural considerations (Anonymous 8, pers. comm.).

12.2 NUNAVUT LAND TITLE AND TENURE

There are two main types of land title and tenure within Nunavut – IOL and Crown lands (Figure 12.2-1; NTI 2004). IOL is designated under the NLCA as lands that vest in a Designated Inuit Organization, while Crown land refer to lands currently held by the federal government (NTI 2004). The NTI is responsible for IOL and AANDC for most Crown lands. Management of IOL is guided by NTI bylaws (Johnson 2009). The Land Administration Division of AANDC administers surface and subsurface rights on Crown land in accordance with the *Territorial Lands Act* (1985) and the *Federal Real Property and Federal Immovables Act* (1991) under the guidance of the Territorial Land Use Regulations for surface rights and the Northwest Territories and Nunavut Mining Regulations for subsurface rights (INAC 2005).

12.2.1 Inuit Owned Lands

The NTI Department of Lands and Resources manages IOL on behalf of all Inuit. There are two main types of title to IOL – surface and subsurface. The subsurface IOL title includes the land and all specified substances (e.g., carving stone and aggregate, earth, soil, and peat), which are held by the RIAs, and the mineral and mine deposits, which are held by NTI. The surface IOL title, which is held by the RIAs, includes the land and all specified substances but does not include rights to mineral and mine deposits. Subsurface rights on surface IOL are held by the Crown and are administered by AANDC (NTI 2004; Johnson 2009). Figure 12.2-1 illustrates the location of both surface and subsurface IOL.

The RIAs administer access to surface IOL rights through the provision of land use licenses (three classes), commercial leases (three classes), right-of-way, residential, and recreational leases, and quarry rights. Class 2 and 3 land use licenses are required for the use of explosives, construction, establishment of a campsite, use of machinery, and storage of fuels, among over activities. Class 3 land use licenses are generally for activities that are potentially more intrusive than those described under Class 2 licenses. Class 1 land use licenses are required for preliminary investigative or exploratory work, as well as commercial guiding. Class 2 and 3 commercial leases are required for the construction and operation of facilities related to industry (e.g., extraction, compression, processing, transportation, and refining), power generation, storage of various materials (e.g., fuel, hazardous

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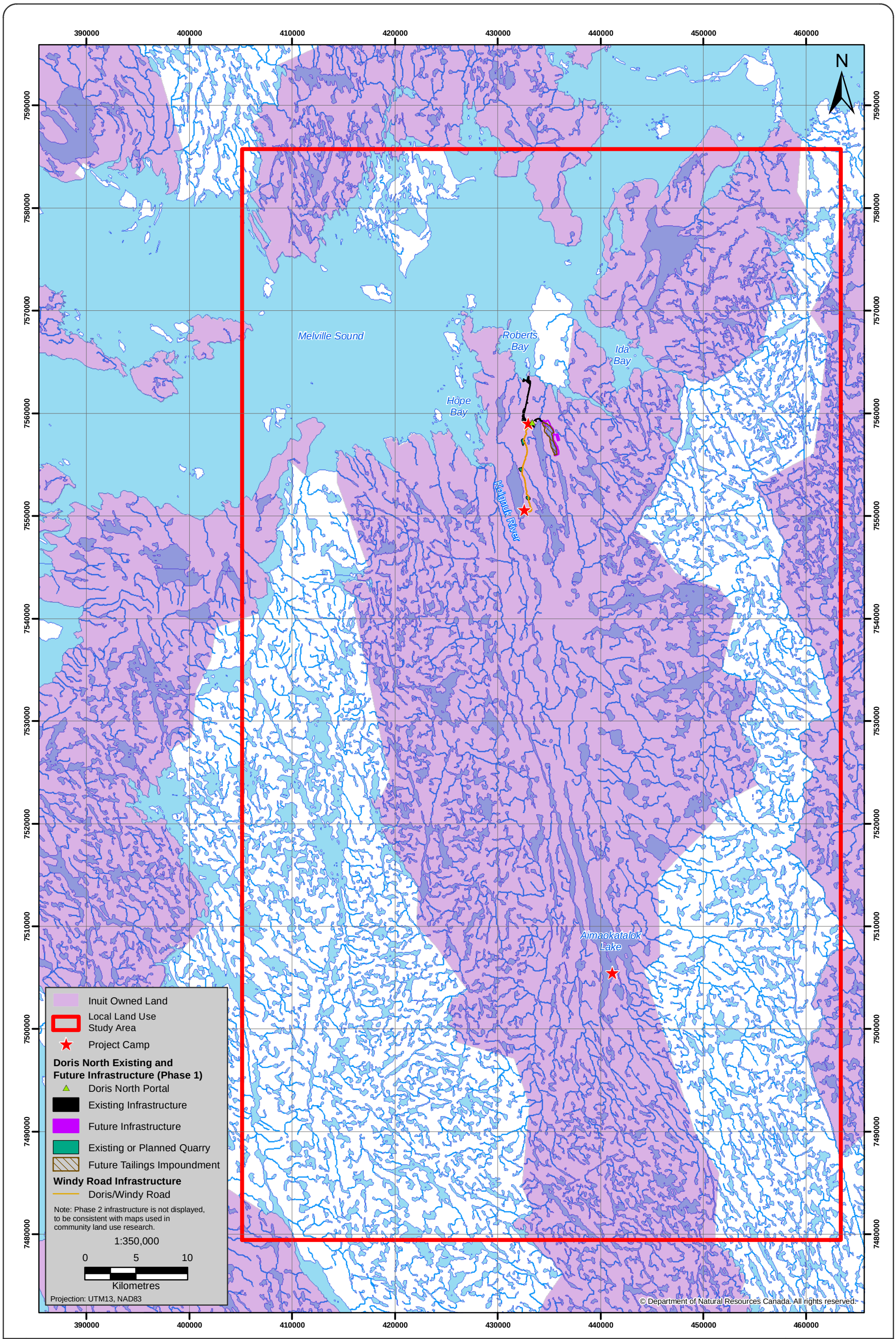

Figure 12.2-1

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Inuit Owned Land in the Land Use Local Study Area

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materials and goods), and employment of individuals, among other activities. As with land use licenses, Class 3 commercial leases are generally required for activities that are potentially more invasive or intensive than those found under Class 2 leases. Class 1 leases are required for commercial activities in support of wildlife harvesting, renewable resource use, or tourism development. Leases are issued by the RIAs after considering the advice of community committees (Johnson 2009).

The NTI administers access to subsurface IOL rights. Exploration agreements may be granted by the NTI for a term of one year, renewable in up to 20 subsequent years, with an annual fee and work requirement, for areas limited to 10,000 ha (NTI 2004; Johnson 2009). Once it can be proven that a resource exists, the proponent can apply for a production lease with an original term of 10 years. The original production lease can be renewed for two subsequent five-year terms, if sufficient proof of progress is received by the NTI. Once production is initiated the production lease is automatically renewed for 21 years and an IOL royalty is paid on production. If mineral rights were held on subsurface IOL prior to the signing of the NLCA, the NTI retains ownership of the minerals, but the rights are administered by AANDC.

12.2.2 Crown Land

Crown land in Nunavut is administered by the Land Administration Division of AANDC although Inuit have rights to portions of the resource royalties from extractions on Crown land and must be consulted about all resource developments (NTI 2004; INAC 2005). The Canada Mining Regulations govern exploration rights in the form of prospecting claims, mineral claims, and mineral leases. A licence to prospect is required to prospect, record a mineral claim, apply for a prospecting permit, or acquire a mineral lease. Exclusive exploration rights are provided through prospecting permits within assigned boundaries for regions ranging in size from 8,319 to 29,000 ha. Applications for prospecting permits must include an overview of the exploratory work as well as an application fee and a deposit for the first work period of exploration. Before the prospecting permit expires, a mineral claim can be staked. Mineral claim holders have exclusive rights to develop mineral deposits found during the exploratory work. No surface rights are associated with mineral claims. Claims can be held for up to ten years and allow the holder to remove, sell, or dispose of minerals or ores up to a gross value of $100,000 per year – amounts in excess are only allowed once the claim has been taken to lease. Mineral leases allow the holder to extract more than $100,000 worth of minerals or ores and are issued for a 21 year period, after which they can be renewed. Mineral leases also do not award any surface rights (INAC 2005).

Surface tenure on Crown land is governed by the Territorial Land Use Regulations (TLUR), which are used to guide the provision of land use permits. There are two types of land use permits – Class A and Class B. Class A permits are generally for more intensive operations than Class B. Applicants for land use permits must hold a license to prospect, a prospecting permit, or mineral rights. Although not required by the TLUR, INAC encourages applicants to complete community consultations prior to submitting land use permit applications and to incorporate the feedback into the original submission, as it will be used in environmental and public screenings (INAC 2005).

The screening process for a land use permit application begins with an NPC conformity check to ensure the proposed land use complies with existing land use plans. If the conformity check is passed, the application moves on to the next round of review. Class B applications are exempt from the NIRB environmental assessment process and are instead screened by AANDC's Land Advisory Committee, whereas Class A applications are screened by the Nunavut Impact Review Board (NIRB). During this process, water licences may also be reviewed by the NWB. Both Class A and B applications are also screened by an AANDC Resource Management Officer, who provides feedback and suggests alternate land use practices, if necessary, taking into account the recommendations from the Land Advisory

Committee or NIRB, as relevant. Land use permits can be suspended at any time if compliance with the conditions, determined by the screening process, is not achieved (INAC 2005).

12.3 PARKS AND PROTECTED AREAS

The largest protected area proximal to the Hope Bay Belt Project is the Queen Maud Gulf Migratory Bird Sanctuary (Table 12.3-1; Figure 12.3-1), which is a legislated conservation area that supports nearly the entire global population of Ross' Geese, giving it international importance (NPC 2004). Designated conservation zones are also found near Hood River in the Wilberforce Falls area and the Hiukitiak River watershed, east of the Bathurst Inlet area. These zones are of cultural importance for local Inuit and serve as a destination for eco-tourists (NPC 2004). There are also a number of areas within the Kitikmeot Region that are identified as Wildlife Areas of Significant Interest by the NPC (2008c). These include a circular area around Kent Peninsula and the Hope Bay area that intersects with the land use LSA (NPC 2008c). In addition, the Kitikmeot Region includes numerous territorial parks, such as Ovayok (Mount Pelly) Territorial Park, the Northwest Passage Trail, and Kugluk/Bloody Falls (Figure 12.3-1).

Other sites of importance include the Coppermine River, which was nominated as a Canadian Heritage River in 2002. The Canadian Heritage Rivers Systems gives national recognition to rivers that have outstanding natural or human heritage values and significant recreational opportunities. A management plan for the Coppermine River was completed in 2008 and submitted to the Canadian Heritage Rivers Board. In accordance with the NLCA, the management plan was coordinated by the Kugluktuk Hunter and Trappers Organization and the Kitikmeot Inuit Association.

Table 12.3-1 outlines the designated protected areas closest to the Hope Bay Belt Project.

Table 12.3-1. Designated Protected Areas Proximal to the Hope Bay Belt Project

Protected Area	Importance	Location Relative to Project
Queen Maud Gulf Migratory Bird Sanctuary (Iluilik Sanctuary)	Migratory bird sanctuary and Ramsar* site. The sanctuary supports virtually the total world population of Ross' geese and about 15% of the Canadian population of lesser snow geese.	Approximately 30 km east of the Project area.
Huikitak River Conservation Area	Proposed territorial park, national historic site, national wildlife area, or a national park to be conserved for traditional land use activities.	Approximately 40 km south and west of the Project area.
Wilberforce Falls	Area of Special Significance.	Approximately 40 km southwest of the Project area.
Ovayok (Mount Pelly) Territorial Park	Located in Cambridge Bay; important for tourism, and a viewing area for landscape and wildlife.	Approximately 130 km northeast of the Project area

** designated under the international Ramsar convention on wetlands (Ramsar 2011).*

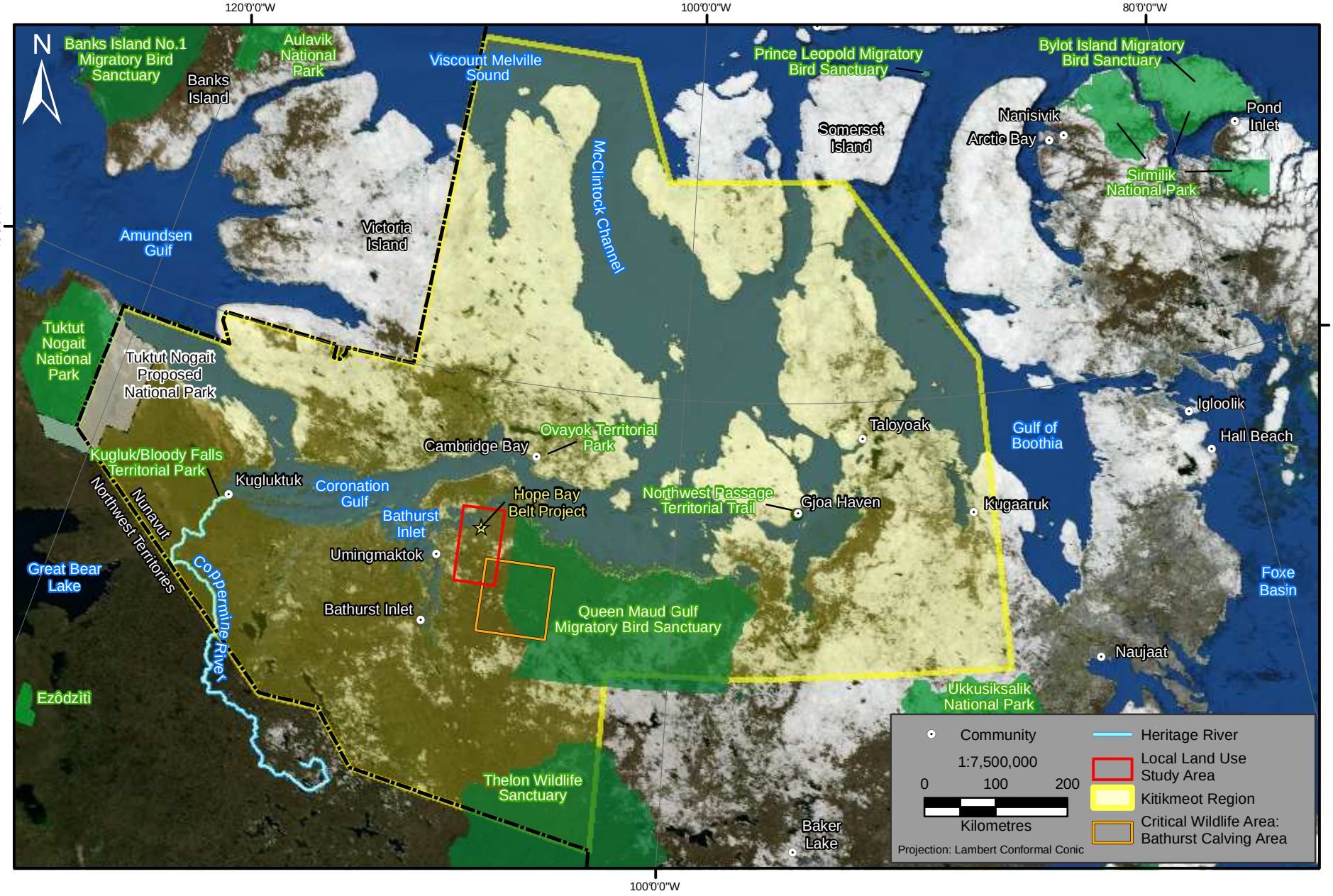

Figure 12.3-1

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Parks and Protected Areas in the Kitikmeot Region

Figure 12.3-1

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13. Subsistence and Cultural Land Use

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13. Subsistence and Cultural Land Use

13.1 LAND USE VALUES

The Inuit culture and way of life is intrinsically connected with the land, as is reflected in the following quote from a hunter in the Kitikmeot Region: "The land is important to us. Eating animals and fish is very important to us. Keep it as clean as possible. We don't waste any; we use most of it" (J. Avalak, pers. comm.). Land users from Umingmaktok emphasized that wildlife and fish habitat needs to be protected, and that mining activities should only occur if there is little or no impact on fish habitat (Land use focus group participants, pers. comm.).

The Inuit people of the Kitikmeot have a longstanding relationship of reciprocity and respect with their region's wildlife and environment as a whole, as is manifested within Inuit Qaujimajatuqangit (Golder Associates Ltd 2003). In Inuit culture, the environment is valued as a whole: the value of one ecosystem component cannot be ranked or differentiated from the value of another. As such, the relative value of ecosystem components is not considered within Inuit Qaujimajatuqangit and traditional practices. Despite the ongoing Westernization of Inuit society, Inuit Qaujimajatuqangit, including ways of respecting wildlife and the environment as a whole, persist and continue to be passed from generation to generation (Golder Associates Ltd 2003). The values that guide traditional activities and subsistence harvests are reflected in the Inuit approach to historic and contemporary land and resource use activities in the Kitikmeot Region.

Maintaining the health of the land and the ability of the land to support the traditional subsistence economy, including hunting, trapping, fishing, and gathering, is essential to the Inuit lifestyle. This includes ensuring the sustainability of wildlife populations in the area. Muskox, caribou, grizzly bear, wolf, and wolverine are among the species people in the Kitikmeot Region rely upon, with caribou being the most harvested terrestrial mammal (Section 6.3). "Caribou is a way of life" (B. Sitatak, pers. comm.) for the Inuit people. Grizzly bear is culturally significant for the communities of Kugluktuk and Bathurst Inlet, where it is more a part of the diet and living supplies than in other communities (Anonymous 6, pers. comm.). Wolverine is important both socially and culturally, and those who harvest it are deemed to have a high skill level and status. Smaller species such as ptarmigan are important sources of food. Arctic char and whitefish are staple foods (Anonymous 6, pers. comm.).

The Dolphin Union caribou herd (which is of special concern nationally) is important for Kugluktuk, Umingmaktok, Bathurst Inlet, and Cambridge Bay harvesters (Anonymous 6, pers. comm.). The herd is mainly harvested in and around Cambridge Bay, when thousands of the caribou pass through during their migration. Kugluktuk community members also harvest the caribou along the coast (Anonymous 6, pers. comm.). Further information on subsistence land harvesting is provided in Section 6.3.

13.2 LAND USE ACTIVITIES

Primary information about current land use activities was obtained through interviews with HTO representatives in each Kitikmeot community, local hunters, and government land and resource managers. Additionally, in November 2011, a land use focus group session was held with people from Umingmaktok (Bay Chimo), the community closest to the Project. Travelling on the land, hunting, and fishing remain important cultural activities within the land use LSA (Figure 1.3-2) and throughout the Kitikmeot Region. Subsistence land use in the LSA and nearby areas is illustrated in Figure 13.2-1. The results of interviews did not identify any specific locations within the land use LSA that people visit for

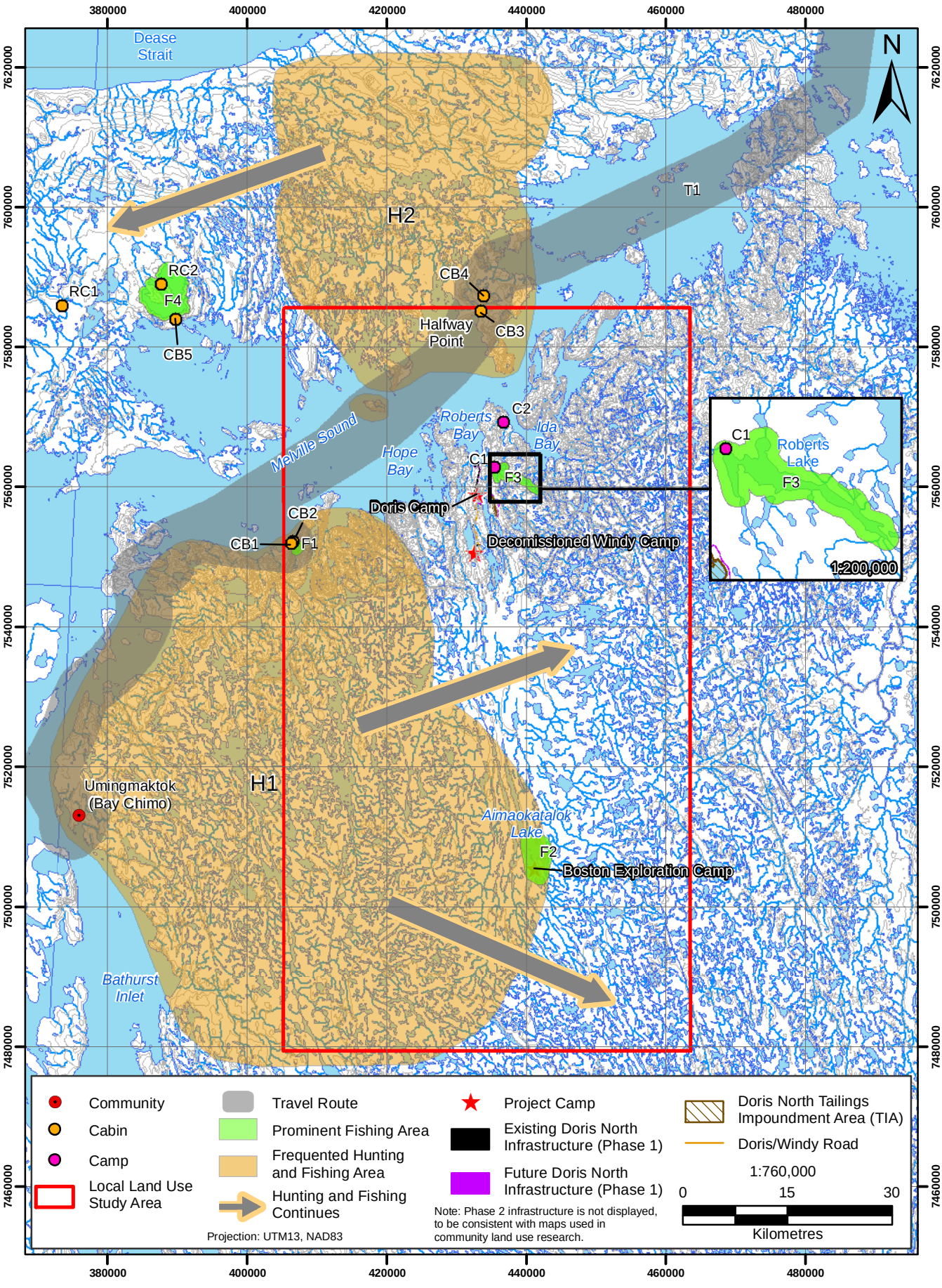

Figure 13.2-1

Local Subsistence Land Use

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ceremonial and spiritual reasons. However, it was noted that an Elders group has recently started to go to old camp sites and places where relatives were born with the purpose of visiting the sites with family and friends.

13.2.1 Hunting and Trapping

Hunting and trapping harvests for the communities of Cambridge Bay, Umingmaktok, and Bathurst Inlet, which are known to use lands within the land use LSA (Figure 13.2-1), have been described in Section 6.3. As previously noted, the results of interviews conducted for this baseline study have indicated that a total of about 20 to 25 hunters are active within and near the land use LSA, consisting of approximately 10 individuals from Umingmaktok and Bathurst Inlet and 10 to 15 intensive hunters from Cambridge Bay. However, interviewees stated that in some years there can be more hunters using the area. Taloyoak, Gjoa Haven, and Kurtairojuark HTO (based in Kugaaruk) representatives indicated that they are not aware of any of their members hunting or trapping near the land use LSA.

While the area is geographically difficult to access, hunting, trapping, fishing, and camping does take place throughout the area. Local hunters indicated that the entire land use LSA is important for subsistence use and that they use the whole area, not only specific locations within it. People generally go where the animals go, travelling as far from communities as necessary to reach the animals they are hunting. Subsistence hunting for caribou, muskox, wolverine, grey wolf, and fox takes place throughout the land use LSA (Anonymous 7, pers. comm.; B. Sitatak, pers. comm.; Land use focus group participants, pers. comm.). A local hunter indicated that he and others follow the wildlife and hunt, fish, and camp throughout the area (J. Avalak, pers. comm.). Land closer to the community of Umingmaktok, west and south of the Doris North Project (area H1 in Figure 13.2-1) and on the Kent Peninsula (area H2 in Figure 13.2-1) was indicated to be more frequently used. Hunters from Umingmaktok noted that they hunt all the way past Boston Camp (see arrows going east from H1 Figure 13.2-1; Land use focus group participants, pers. comm.). Hunting also continues west from area H2 along Kent Peninsula, in particular for grizzly bear guide outfitting (see arrows going west from H2 in Figure 13.2-1; Land use focus group participants, pers. comm.). The number of animals harvested by the average hunter depends on the size of their family (Land use focus group participants, pers. comm.). Hunters will follow wildlife and change their hunting location based on animal populations and movements. Hunters can change their location daily, depending on weather and the location of wildlife and are often dispersed across the landscape (J. Avalak, pers. comm.). Migratory animals may change their movement patterns between years, and hunters adjust their hunting efforts accordingly (Anonymous 7, pers. comm.; B. Sitatak, pers. comm.; J. Avalak, pers. comm.). For example, in past years Elders hunted more in areas extending from Hope Bay to Roberts Bay, as wildlife was plentiful there at the time. Now hunters have moved to other areas, following the wildlife pattern changes (Anonymous 7, pers. comm.; B. Sitatak, pers. comm.). The location of hunting and trapping in the area has not changed in recent years (Anonymous 7, pers. comm.; B. Sitatak, pers. comm).

Most hunting occurs December through April. The season for muskox is set by regulation. The caribou hunt is open year round, and caribou are hunted as they travel closer to communities during their migrations. Wolverines, wolves, and fox are hunted from October to April/May, as their hides are best in the winter (Anonymous 7, pers. comm.; B. Sitatak, pers. comm).

Individuals travelling between Bathurst Inlet, Umingmaktok, and Cambridge Bay (route T1, Figure 13.2-1) may stop to hunt along the way – mainly for wolverine, wolf, and caribou (J. Avalak, pers. comm.). They may also hunt near the islands between the Kent Peninsula and Hope Bay, with some islands known to being particularly good for seal hunting (Anonymous 7, pers. comm.; B. Sitatak, pers. comm). Opportunistic hunting for migratory birds occurs in the spring and summer, as available, particularly in the area west of the Doris North Project (Anonymous 7, pers. comm.; B. Sitatak, pers.

comm). Hunters from Umingmaktok noted that birds, including geese, swans and eider ducks are also harvested everywhere they are found throughout the LSA. Islands and lakes are some of the best areas for bird nesting (Land use focus group participants, pers. comm.).

Local land users noted that very few people are currently trapping, and those that do focus their efforts on fox. For example, one active hunter, who intensively trapped during the early 1970s, now mainly hunts with a rifle; the main reason cited for this change was the low level of income that can currently be obtained from trapping relative to the cost of living (J. Avalak, pers. comm.). Umingmaktok hunters indicated that some trapping for fox occurs east of the Project area. Trapping for fox used to occur in eastern Kent Peninsula (Land use focus group participants, pers. comm.).

Seal hunting used to take place in the past but there are reportedly fewer seals seen in the area now. People from Umingmaktok noted that seals are not a sunstantial part of their current diet and are generally not harvested in the Roberts Bay area (Land use focus group participants, pers. comm.). While sightings are rare, narwhal are known to appear in the marine areas near the LSA periodically (Land use focus group participants, pers. comm.).

Land users active in the LSA have observed changes in animal locations in recent years. For example, there are more grizzly bears throughout Kent Peninsula. Believed related to the abundance of grizzly, there are fewer muskox sightings and it is more difficult to catch muskox and caribou. Grizzly and wolf are seen all year round on Kent Peninsula. Hunters from Umingmaktok suggested the increase of grizzly bears in the area is related to climate change and possibly forest fires to the south (Land use focus group participants, pers. comm.).

13.2.2 Fishing

While three prominent fishing areas are noted within the land use LSA (Figure 13.2-1), fishing occurs throughout the region and is not limited to the specific identified areas. One frequented fishing area is located southwest of the Doris North Project, near a small lake at the edge of Melville Sound (F1 in Figure 13.2-1). Participants at the land use focus group session indicated that many people come to this lake from Cambridge Bay, especially in the spring (Land use focus group participants, pers. comm.). A local hunter confirmed that people go there near the end of May, to ice fish (J. Avalak, pers. comm.). In fall, nets are also set through the ice. Arctic char is the main species fished for at that location. Grizzlies also frequent the area because of the char (Land use focus group participants, pers. comm.). Aimaokatalok Lake is another prominent fishing area within the land use LSA (F2 in Figure 13.2-1; Anonymous 7, pers. comm; B. Sitatak, pers. comm.; Land use focus group participants, pers. comm.). A creek on the west side of Aimaokatalok Lake is open year round (Land use focus group participants, pers. comm.).

During the land use focus group session, Roberts Lake was also highlighted as having abundant fish (F3 in Figure 13.2-1) and as being especially important to the family who lived at an outpost camp there for many years (C1 in Figure 13.2-1; M. Avalak, pers. comm.).

Another lake highlighted for frequent fishing use is located east of the land use LSA on the south side of Kent Peninsula (F4 in Figure 13.2-1). The lake is used to fish char, trout and whitefish. People still set nets in the lake for fish. Seals also visit the lake because of the presence of fish (Land use focus group participants, pers. comm.).

Land users from Umingmaktok noted that there is abundant fish (e.g., whitefish, char, cod, sculpins, flatfish) in Roberts Bay and Ida Bay, but that there is likely not much current activity in Roberts Bay because of its proximity to the Doris North Project. Clams are likely found in the marine areas near

Roberts Bay, but people from Umingmaktok do not harvest them. Rather, they focus on whitefish, trout and cod (Land use focus group participants, pers. comm.).

Fish are harvested in winter, spring and summer. Fishing methods include the use of weirs and nets (Land use focus group participants, pers. comm.).

Larger lakes and rivers that connect to the ocean are important as they usually have an abundance of fish such as char, whitefish and trout. Local land users stand up and pile rocks to mark good fishing spots. When travelling the land, people follow big lakes and rivers and look for fish markers. The big lakes, thus, have a long history of use (Land use focus group participants, pers. comm.).

13.2.3 Cabins and Camps

Under Section 7.1.1 of the NLCA, an "outpost camp" means "a camp occupied by families or other groups of Inuit who occupy the particular location on a temporary, seasonal, intermittent, semi-permanent or year round basis for the purposes of wildlife harvesting and the associated use and enjoyment of lands". An outpost camp includes "(a) the residential base, and (b) the surface lands on which the residential base rests and the surface lands within a distance of two kilometres from the centre of the residential base but does not include any randomly occupied locations used only for periods of several days or weeks" (NLCA 1993b).

At the time of writing, there was no list of officially designated outpost camps as recognized by government. Which specific sites or camps are to be described as outpost camps is not clear. Therefore, in this report it is noted if a site was referred to as an outpost camp by local land users as they used the term, but otherwise such sites are described by the more general term "camps".

While several known camps are located in the land use LSA (Figure 13.2-1), local land users camp in many places as they travel through the area hunting and fishing. Camping may take place anywhere and is not limited to the identified camps, which are the more regularly used locations (J. Avalak, pers. comm.). In addition, as noted by Elders, camps have historically been located along the shores of Roberts Bay, around Hope Bay, and at river mouths and confluences (Golder Associates Ltd 2003). Numerous historic camps are found throughout and near the land use LSA.

As described above in the section about fishing, a camp is located on the northwest edge of Roberts Lake (site C1 on Figure 13.2-1). Described as an outpost camp, the site has been occupied on a long-term basis in the recent past (J. Avalak, pers. comm.). M. Avalak, her son J. Avalak and family lived there for five years (M. Avalak, pers. comm.). Currently the site is used for short-term stays while hunting and fishing in the area (J. Avalak, pers. comm.). A seasonal camp is located on the peninsula between Roberts and Ida bays and is used primarily in the spring and summer (site C2 on Figure 13.2-1; J. Avalak, pers. comm.).

When out hunting, hunters try to use the existing cabins (Anonymous 7, pers. comm.). Four cabins are located within the land use LSA. Two are located near the frequented fishing area west of the Doris North Project (sites CB1 and CB2 in Figure 13.2-1) and another two on the south side of the Kent Peninsula (sites CB3 and CB4 on Figure 13.2-1; Anonymous 7, pers. comm; B. Sitatak, pers. comm.; Land use focus group participants, pers. comm.). These cabins are used both as a base for hunting and fishing and as accommodations while individuals and families are traveling through the area between Cambridge Bay and Umingmaktok or Bathurst Inlet. The area around cabins CB3 and CB4 is known as "Halfway Point". A trail is located nearby (L. Coady, pers. comm.). The duration of cabin stays varies from a couple of days to longer (Land use focus group participants, pers. comm.).

When asked about the location of outpost camps, land use focus group participants identified a cabin located just outside the land use LSA on a well-frequented fishing lake (F4) on the south side of Kent Peninsula (CB5 in Figure 13.2-1; Land use focus group participants, pers. comm.).

A number of local land users also stop in or stay over at the Doris North Project camp while travelling and hunting. The majority of these site visitors are members of three families, originally from Umingmaktok, who have moved either permanently or semi-permanently to Cambridge Bay and who still spend up to half of each year in Umingmaktok. Three intensive harvesters from Cambridge Bay are also among the most regular non-Project related site visitors.

The Walker Bay Research Facility (RC1 in Figure 13.2-1) and a research cabin (RC2 in Figure 13.2-1) are located near the west end of the Kent Peninsula (D. Fredlund, pers. comm; S. Sather, pers. comm.). These cabins belong to Government of Nunavut's Department of Environment. These cabins are located outside of the defined land use LSA.

13.2.4 Travel

Local travel patterns are seasonally-dependent as Kitikmeot residents travel to hunting, fishing, and camping areas. Although most people originally from Umingmaktok have moved to Cambridge Bay, they go back and forth to Umingmaktok every summer and winter – "they still go home whenever they feel like it – that's their home" (Land use focus group participants, pers. comm.). Most travel within the land use LSA is by snowmobile, with very few people continuing to travel by dogsled. During the ice season (usually late November to early June), travel is predominantly by snowmobile and includes travel over ice and over land covered by ice and snow. During the ice-free period, travel over land is dominated by ATVs, though boats are also used during this period. Inland travel usually ends by mid-May, as snowmelt increases difficulties associated with travel, shifting to use of the coastal areas for travel (Anonymous 7, pers. comm.; Land use focus group participants, pers. comm.).

People travelling between Bathurst Inlet, Umingmaktok, and Cambridge Bay generally follow a route along the coast and across waterways towards the Kent Peninsula (T1 on Figure 13.2-1). A popular route to Cambridge Bay by snowmobile goes through Elu Inlet and across the narrow band of land at the east end of Kent Peninsula (Land use focus group participants, pers. comm.). This route is taken from freeze up until April. During the summer people may travel the long way to Cambridge Bay around Kent Peninsula by boat (Land use focus group participants, pers. comm.). People may travel back to Cambridge Bay for supplies and may hunt along the way. They may also stop at the camps, cabins, and the Doris North camp en route. Some individuals travel to Umingmaktok and Bathurst Inlet from Cambridge Bay in the summer (J. Avalak, pers. comm.) and may travel through the land use LSA en route.

14. Commercial and Industrial Land Use

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14. Commercial and Industrial Land Use

In addition to traditional and subsistence activities, non-traditional land use activities, including tourism, mining, and mineral exploration, are of increasing importance throughout Nunavut. Non-traditional use of lands and resources in the Kitikmeot Region is focused on commercial food harvesting, sport hunting and guide outfitting, outdoor tourism, and mining.

14.1 COMMERCIAL FOOD HARVEST

Kitikmeot Foods Ltd. is the main business venture in the Kitikmeot; it is focused on creating jobs for local people by harvesting and processing northern specialty meat and fish products for commercial markets. Muskox and char are currently the main products, which are sold across Nunavut, the Northwest Territories, other parts of Canada and the United States (Anonymous 10, pers. comm.). A subsidiary of the Nunavut Development Corporation, the company incorporated a plant in Cambridge Bay in 1993. The plant has eight permanent employees and seasonally hires up to 15 hunters and 25 fishers to harvest muskox and Arctic char (Anonymous 10, pers. comm.; Kitikmeot Foods 2011). Kitikmeot Foods are allocated 400 hunting tags per year for muskox, which are managed separately from the community harvest and sport hunts (Anonymous 10, pers. comm.; B. Sitatak, pers. comm.). The muskox hunt is conducted annually near Cambridge Bay on Victoria Island in late February to early March (Anonymous 10, pers. comm.). Commercial fisheries are located at six sites mainly near Cambridge Bay, with quotas allocated by the Fisheries and Oceans Canada. Kitikmeot Foods harvests 70,000 to 80,000 pounds of char per year (Anonymous 10, pers. comm.).

While Kitikmeot Foods is not currently conducting commercial fishing in or near the land use LSA or western marine waters, they would consider moving to other areas if the size and location of quotas changed. For example, if the quotas allocated by Fisheries and Ocean Canada were decreased in their current areas and increased near the LSA, they would move their fishery as needed to obtain fish for the plant. However, due to the high cost of transport and the long distance to the LSA, the quota would have to be large to make it worthwhile to harvest in that area (Anonymous 10, pers. comm.).

Umingmaktok hunters have recently expressed interest in harvesting 12,000 pounds of fish per year on contract to Kitikmeot Foods. The plant has been seeking a winter fishery for some time and is interested in supporting the local people (Anonymous 10, pers. comm.). However, there are logistical challenges because of travel distances and the initiative has yet to proceed beyond the early concept phase.

The NPC has identified a number of areas of Arctic char abundance throughout the Kitikmeot Region for potential commercial harvest. These include all of Bathurst Inlet and areas around Cambridge Bay, Kugluktuk, Kugaaruk, and south of Gjoa Haven (NPC 2008a). Experimental commercial fishing is being conducted outside of the land use LSA (B. Lyall, pers. comm.) and the NPC identifies commercial char-fishing activities at and around the confluence of the Burnside River with Bathurst Inlet (NPC 2004). While current fishing efforts are relatively low, if experimental fishing results are successful, small seasonal camps could potentially be set up to support commercial fishing in Bathurst Inlet in the future. There have been some initial barriers, however. For example, the Burnside HTO is pursuing a commercial fishing license from Fisheries and Oceans Canada (DFO). One requirement of the DFO is that the fish must be sold fresh, which is challenging the Burnside HTO to find efficient means of transporting fish to local markets, likely meaning a need to transport to Iqaluit (Anonymous 7, pers. comm.). The viability of small-scale commercial fishing in the region will depend on the ability of groups like the Burnside HTO to overcome these barriers.

14.2 SPORT HUNTING

The HTOs out of Bathurst Inlet (Burnside), Umingmaktok, and Cambridge Bay (Ekalututiak) each conduct sport hunts, mainly for grizzly bear, wolf, and muskox (B. Sitatak, pers. comm.; B. Warner, pers. comm.). Although strict boundaries are not delineated, grizzly sport hunting typically takes place during spring in the areas east and north of Umingmaktok and north of Hope Bay on the Kent Peninsula (approximately areas H1 and H2 in Figure 13.2-1). Umingmaktok hunters conduct guide outfitting for grizzly bear throughout Kent Peninsula to Halfway Point (Land use focus group participants, pers. comm.). These areas also support subsistence use and include portions of the land use LSA. In addition, the training of guides for the sport hunts sometimes requires that individuals travel through the land use LSA on their way to Umingmaktok or Bathurst Inlet (J. Avalak, pers. comm.). Sport fishing is not currently reported to take place in the land use LSA.

Sport hunting associated with the Burnside HTO sometimes occurs in the southern portion of the land use LSA, but is primarily located outside of this area. Generally, the Burnside HTO conducts their sport hunting activities further south, close to but not infringing upon the Umingmaktok community's area, based on existing agreements with this community. For the Burnside HTO, the spring grizzly bear and wolf hunt takes place from April to May, within a fifty mile radius of the Bathurst Inlet Lodge. In the past, there has also been an August to September hunt. Clients for the sport hunt are typically flown into Bathurst Inlet from Yellowknife, although transportation from Cambridge Bay by snowmobile may be possible in the future (B. Warner, pers. comm.). Access to the sport hunting areas from Bathurst Inlet is usually by snowmobile.

Some sport hunts operated by the Burnside HTO are marketed and sold through Adventures Northwest. Adventures Northwest has about ten guide outfitting clients per year (B. Warner, pers. comm.). Guides are exclusively Inuit and only local hunters and trappers who possess the proper licences are able to guide. Currently, there are two main guides from the Burnside HTO (B. Warner, pers. comm.).

In the past, Adventures Northwest and the Burnside HTO have collaboratively organized a muskox hunt in the spring within a fifty mile radius of the Bathurst Inlet Lodge. The large majority of clients for the muskox hunt are American and, due to depressed economic conditions in the United States, the muskox hunt has recently been halted; however, it may be restarted if the economic conditions improve (B. Warner, pers. comm.). Typically, muskox sport hunters take the fur and head of the animal for trophies while the community receives the meat, although some sport hunters may also take small portions of the meat for personal use (Anonymous 7, pers. comm.).

Tourism lodges and guide outfitting provide opportunities for Inuit to share their lifestyle and cultural ways with outside visitors, in turn raising awareness of their culture and way of life. These activities also provide a livelihood and means of employment for people who live in remote communities such as Bathurst Inlet and Umingmaktok (B. Warner, pers. comm.).

14.3 OUTDOOR TOURISM AND RECREATION

Cambridge Bay is a base for tourism in the region. Many flights to other communities in western Nunavut are routed through Cambridge Bay, which has direct flights to both Edmonton and Yellowknife. Ships travelling the Northern Passage also often stop at Cambridge Bay. In the community, some of the main attractions are the Arctic Coast Visitors Centre and the Kitikmeot Heritage Centre, which report approximately 2,000 visitors each year (NEDA 2008). The community is also recognized as a destination for bird-watching and research, being a base for visitors to the Queen Maud Bird Sanctuary (Figure 12.3-1).

A limited number of seasonal lodges and adventure tourism companies currently operate throughout the Kitikmeot Region. The main tourism lodges include the High Arctic Lodge and Camp Ekaluk (with B & J Fly Fishing Adventures) on Victoria Island, Bathurst Inlet Lodge at Bathurst Inlet, Plummers Arctic Lodge on the Tree River, and Elu Inlet Lodge south of Cambridge Bay. Elu Inlet Lodge and Bathurst Inlet Lodge are the closest to, yet are outside of, the land use LSA.

The Bathurst Inlet Lodge is an ecotourism venture located in the community of Bathurst Inlet. Established in 1969, the lodge occupies an old Hudson Bay Company post and is co-owned by Kingaunmiut, a local Inuit company. It has been lauded as one of the best eco-lodges in northern Canada (Bathurst Inlet Lodge 2011). The lodge offers ecotourism packages for minimum stays of six to seven days with meals and tours included. Ecotourism activities include boating in Bathurst Inlet, hiking, sightseeing, and culture and nature interpretation, and take place within an 80 km radius of the Lodge (B. Warner, pers. comm.).

Bathurst Inlet Lodge has one permanent full-time employee and up to fifteen seasonal workers in peak season, most of who are Inuit. Prior to the economic downturn, the company hosted approximately 100 to 120 lodge clients per year and approximately 100 canoe outfitting clients. Currently the number of clients is down substantially, and they are only open for one to two weeks a year (as opposed to the usual six weeks) and are waiting for markets to improve. As they provide a luxury tourism product, the company finds it harder to book clients when discretionary spending is lower. About 80% of clients are Canadian, 10% are American, and 10% are from other countries (B. Warner, pers. comm.).

The lodge, in partnership with Nahanni River Adventures and Bathurst Arctic Services, also offers guided or self-supported river rafting and canoe outfitting on rivers throughout Nunavut and the Northwest Territories. Rivers they currently visit near the land use LSA include the Burnside, Mara, and Huikitak (Bathurst Inlet Lodge 2011; B. Warner, pers. comm.). The company also operates remote camps for tourists, including the Burnside Lodge near Kathawachaga Lake, which has five separate insulated cabins. Activities at these camps include watersports (canoeing, kayaking, rafting) and sport-fishing. Bathurst Arctic Services also runs wilderness trips throughout the Arctic, including sea kayaking, remote flights, hunting, fishing and camping excursions.

The Elu Inlet Lodge is located on the shores of the Elu Inlet near the mouth of the Itibiak River, which is east of Bathurst Inlet. Operating since 2000, the lodge offers summer season eco-tourism adventures, including hiking, wildlife and bird observation, photography, Inuit culture and heritage tours, and fishing excursions (L. Coady, pers. comm.). The lodge may branch out into sport hunting in the future (L. Coady, pers. comm.). The Elu Inlet Lodge is accessed by floatplane from Cambridge Bay. Facilities include lodging, meeting space, an outdoor hot tub, canoes and kayaks and motorized aluminum boats used for day excursions. The lodge specializes in facilitating conferences and corporate retreats. Ecotourism packages are generally for one week, and conferences for three to five days (L. Coady, pers. comm.). In 2009, Elu Inlet Lodge was selected as one of National Geographic Traveler Magazine's "50 Tours of a Lifetime" (Elu Inlet Lodge 2011).

While the area used by Elu Inlet Lodge extends into the land use LSA, their ecotourism activities are focussed within Elu Inlet, generally staying east of the narrow channel northeast of Ida Bay. The lodge makes regular use of the area within Elu Inlet, conducting day excursions by boat, focussed on the larger lakes and shorelines. They do not often venture outside the inlet except for rare visits to Ida and Roberts Bay. In the past the lodge has offered heli-fishing tours to areas farther afield, in partnership with Arctic Heli Fishing. Cruise ships are not known to use the area, and kayak explorers are sighted on rare occassions (L. Coady, pers. comm.).

Elu Inlet Lodge in owned and operated by four partners, including Inuit owners. They employ up to four other people during the summer season. The lodge usually opens when the ice clears - late June or early July – until the first or second week of September. At the peak of their business to date the lodge hosted over 100 clients per year. However, business has slowed with the market downturn in the past few years. They are currently partnered with Frontiers North Adventures for booking and marketing (L. Coady, pers. comm.). In addition to the lodges, there are other tourism companies operating in the wider area. Adventure Canada specializes in small ship expeditionary cruises in Canada's North. Their programs explore local art, culture, wildlife, and natural settings with Canadian and international experts and local guides (Nunavut Tourism 2011). Their advertised Into the Northwest Passage tour includes travel through Gjoa Haven, Bathurst Inlet, Coronation Gulf, and Kugluktuk. Shore visits are described to include hikes on the open tundra at Bathurst Inlet. The next scheduled tour dates are advertised for August-September 2012, including an expedition stop at the mouth of Bathurst Inlet. The company has operated the tour since 2009 (Adventure Canada 2011).

Other tourism companies offer Arctic packages including travel in the Kitikmeot Region, but do not advertise scheduled travel near the land use LSA. Some companies, such as Bathurst Arctic Services, offer outfitting services for travel throughout Nunavut and the North, as requested by individual clients. Cruise ships have expressed an interest in the Bathurst Inlet area, but are reportedly discouraged because the existing hydrographic charting is not adequate. Bathurst Inlet is a popular destination for sea-kayakers, though the actual number of kayakers is still fairly small (B. Warner, pers. comm.).

There may be other tourism opportunities in the region that have yet to be developed to their potential. The NEDA (2008) identifies untapped tourism potential for Cambridge Bay that is related to the Queen Maud Bird Sanctuary, such as day trips and boat tours for bird watching, fishing, or hunting. Tourism maps prepared by the NPC illustrate wildlife viewing opportunities in many areas throughout the Kitikmeot (NPC 2008d). Territorial and national parks also draw tourists to the region.

14.4 INDUSTRIAL LAND USE

Industrial land use activities in the Kitikmeot Region include mine developments and mineral exploration and, to a lesser extent, oil and gas exploration. Contaminated sites are present in the region and are in the process of being remediated.

14.4.1 Mine Development and Mineral Exploration

The potential for mine development in the West Kitikmeot region is recognized to be high, and current mining and mineral exploration activities contribute substantially to local and regional economies and employment (NPC 2004).

In 2010, there were 35 active mineral explorations in the Kitikmeot Region for base metals (10), gold (18), diamonds (4), platinum group metals (1), and uranium (1) (Table 14.4-1; Nunavut Geoscience 2011). In addition, there were approximately 30 exploration projects that were inactive (INAC 2010c). The main mineral resources that are the focus of exploration activities are base metals, gold, diamonds, nickel-copper-platinum group metals, lithium, and uranium (INAC 2010c).

North Arrow Minerals Inc. is a well-established junior exploration company who's Hope Bay Oro gold project is located approximately five kilometres north of the Doris North project (North Arrow Minerals 2011a). In July 2011, the company announced they have started mobilizing for an upcoming exploration drill program at its Oro gold property, which consists of five leases covering an area of over 10,000 acres. Drilling will be focused on the Ida Point prospect at the northern end of the property (North

Arrow Minerals 2011b). The company has established a camp near Roberts Lake, close to the camp on Roberts Lake (C1 in Figure 13.2-1) identified by locals hunters as an outpost camp.

Table 14.4-1. Active Exploration Projects in the Kitikmeot Region, 2010

Closest Community	Project Name	Commodity	Operator
Bathurst Inlet	Blue Caribou	Base Metals	Skybridge Development Corp.
	Contwoyto IOL Concession	Gold	Golden River Resources Corporation
	Gondor	Base Metals	MMG Resources Inc. (Minmetals)
	Hackett River	Base Metals	Xstrata Zinc
	Hood River IOL Concession	Gold	Golden River Resources Corporation
Cambridge Bay	Boston (Hope Bay Belt Project)	Gold	Hope Bay Mining Ltd.
	Doris (Hope Bay Belt Project)	Gold	Hope Bay Mining Ltd.
	George Lake (Back River Project)	Gold	Sabina Gold & Silver Corp.
	Goose Lake (Back River Project)	Gold	Sabina Gold & Silver Corp.
	Madrid (Hope Bay Belt Project)	Gold	Hope Bay Mining Ltd.
Kugaaruk	Amaruk Diamonds	Diamonds	Diamonds North Resources Ltd.
	Amaruk Gold	Gold	Diamonds North Resources Ltd.
	Amaruk Nickel	Nickel-copper PGEs	Diamonds North Resources Ltd.
	Anuri	Gold	North Country Gold Corp.
	Arcadia Bay	Gold	Alix Resources Corp.
	Halkett Inlet	Gold	Diamonds North Resources Ltd.
	Inuk (Committee Bay Gold Project)	Gold	North Country Gold Corp.
	Raven (Committee Bay Gold Project)	Gold	North Country Gold Corp.
	Three Bluffs (Committee Bay Gold Project)	Gold	North Country Gold Corp.
Baker Lake	West Plains (Committee Bay Gold Project)	Gold	North Country Gold Corp.
Kugluktuk	Coppermine Project	Uranium	Hornby Bay Mineral Exploration Ltd.
	Hammer	Diamonds	Stornoway Diamond Corporation
	Hepburn Base Metals	Base Metals	Diamonds North Resources Ltd.
	Hepburn Diamonds	Diamonds	Diamonds North Resources Ltd.
	High Lake	Base Metals	MMG Resources Inc. (Minmetals)
	High Lake East	Base Metals	MMG Resources Inc. (Minmetals)
	Hood	Base Metals	MMG Resources Inc. (Minmetals)
	Izok Lake	Base Metals	MMG Resources Inc. (Minmetals)
	Jericho Mine	Diamonds	Shear Diamonds Ltd.
	Lupin Mine	Gold	MMG Resources Inc. (Minmetals)
	MIE	Nickel-copper PGEs	MIE Metals Corp.
	Rockinghorse IOL Concession	Gold	Golden River Resources Corporation
	Ulu	Gold	MMG Resources Inc. (Minmetals)
	Wishbone	Base Metals	Sabina Gold & Silver Corp.
	Yava	Base Metals	Savant Explorations Ltd.

Source: Nunavut Geoscience (2011).

Advanced explorations in the region include Gondor, High Lake, Hood, and Izok Lake deposits and the Ulu gold deposit, all of which are held by MMG Resources, Inc. (INAC 2009b). In 2010, Sabina Gold and Silver Corporation made significant advancement at its Back River Gold Project and the Hackett River base metals property (Hackett River now owned by Xstrata Zinc; INAC 2010c).

As of early 2011, one mine was operating in Nunavut (Meadowbank Gold). The Doris North Project, which received environmental assessment approval in 2007, is currently under development and is expected to start producing in 2011. Other projects advanced in the environmental review process include Areva Resources Canada's Kiggavik Uranium Project and Baffinland Iron Mines Corporation's Mary River Iron Project (INAC 2010c). Of those, only the Doris North Project is located in the Kitikmeot Region. The Jericho Diamond Mine property, in the southwest Kitikmeot Region, was under production from 2006 to 2008, and the owner is currently working on plans to re-open the mine (Shear Diamonds 2011b). Further descriptions of the operating and developing mine projects in Nunavut is provided in Section 3.1.4.1 (Mining and Mineral Exploration).

Also in the Kitikmeot, the Lupin gold deposit was in production from 1982 to 1998 and again from 2000 to 2005. At the time of closure, 400,000 ounces of gold were estimated to remain. As of 2009, Lupin was owned by MMG Resources Inc. The Lupin property remained in its care and maintenance in 2010. Nearby deposits such as Ulu, Izok, High Lake, and Gondor are viewed as possible sources of additional mill-feed for potential use at the existing Lupin mill (INAC 2010c).

14.4.2 Oil and Gas Exploration and Development

Crown initiatives to issue oil and gas exploration rights in Nunavut began in 2000. Exploration rights are issued following an open, competitive bidding process. The Northern Oil and Gas Branch of AANDC is responsible for the management of oil and gas resources on Crown land in Nunavut (INAC 2009b).

Oil and gas related exploration and licenses in Nunavut are concentrated in the Eastern Arctic (northern Hudson Bay and around Baffin Island), the Arctic Islands, and Sverdrup Basin (INAC 2011a, 2011b). A number of exploratory and delineation wells are concentrated in the northwest of Qikiqtani Region (NPC 2008b). The Arctic Islands overlie one of Canada's largest petroliferous basins. Two of the largest undeveloped gas fields in Canada are in the Arctic Islands (INAC 2000).

As of 2008, the only oil and gas infrastructure in the Kitikmeot region was an exploratory well in northern Kitikmeot, on Prince of Wales Island. The majority of the southern Kitikmeot region is not recognized as having oil and gas potential (NPC 2008b).

Nunavut and other northern oil and gas resources may become increasingly important as conventional resources in the traditional producing areas of western Canada are depleted. Discovered oil and gas supplies in Nunavut and offshore in the Arctic are described in Table 14.4-2. The discovered gas supplies in the Arctic Islands are comparable to those in the Beaufort Sea-Mackenzie Delta Region; however, industry has not shown a strong interest in the exploration and development of reserves in the Arctic Islands (INAC 2009a).

Table 14.4-2. Oil and Gas Resources in Nunavut and Arctic Offshore

	Discovered Resources		Undiscovered Resources		Ultimate Potential	
Resources	**$10^6 m^3$**	**MMbbls**	**$10^6 m^3$**	**MMbbls**	**$10^6 m^3$**	**MMbbls**
Oil Resources	51.3	322.9	371.8	2339.4	423.1	2662.3
	Discovered Resources		**Undiscovered Resources**		**Ultimate Potential**	
	$10^9 m^3$	**Tcf**	**$10^9 m^3$**	**Tcf**	**$10^9 m^3$**	**Tcf**
Gas Resources	449.7	16.0	1191.9	42.3	1641.6	58.3

MMbbls = million barrels (of oil)
Tcf = trillion cubic feet (of natural gas)
Source: INAC (2009a).

14.4.3 Contaminated Sites and Reclamation

There are approximately 330 contaminated sites and waste sites across Nunavut, with a substantial number located in the Kitikmeot Region (NPC N.d.). As a representative of the Crown, AANDC (INAC 2010a) is the custodian of many of these sites and associated remediation activities. Many of the sites became AANDC's responsibility after private owners relinquished their properties or when corporate operators became insolvent. The Department of National Defence also controls a number of other contaminated sites on Crown land in Nunavut (INAC 2010a). AANDC works with the NPC, the Nunavut Impact Review Board, the Nunavut Water Board, the Government of Nunavut, NTI, and other regulatory agencies to fulfil their responsibilities for clean-up and management (INAC 2008a).

Remediation of two sites, the old Roberts Bay and Ida Bay Silver Mine sites, was initiated in 2008 and completed in 2010 (Indigenous Peoples Issues and Resources 2010). These sites are located northeast of the Hope Bay Belt Project. The mines were active in the 1960 and 70s, ceasing operation in 1975. The mine opening areas were unsecured and contaminated with mine wastes, litter, and contaminated soil (INAC 2010a). Monitoring of the sites will continue for 25 years (INAC 2008b).

14.5 TRANSPORTATION AND SHIPPING

As there are no roads between the Kitikmeot communities, traffic patterns are dominated by air travel in the region. Other types of traffic include marine vessel and ATV in the summer months and snowmobile during winter months. Cruise ships also operate in the area, especially through the renowned Northwest Passage.

Sea barges deliver annual provisions to communities during the ice free period. The sealift includes food, household items, construction supplies, heavy equipment, and fuel, among other supplies. Most communities have a barge dock facility that receives barge service from the Northern Transportation Company Ltd. (NTCL) or Nunavut Sealift and Supply Inc. (NSSI) each year. The western Kitikmeot communities are usually serviced by NTCL and the eastern communities by NSSI.

The NTCL has a recently developed shipping routes starting near Vancouver and extending north along the coast. These new routes have decreased transportation costs and increased shipping capacity (C. Dimitruk, pers. comm.). Since 2009, the NTCL's shipping route for the Western Arctic travels north along the coast from Delta, British Columbia (BC), around Point Barrow and east to the Kitikmeot communities of Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak (Figure 14.5-1). In mid-2011, however, NTCL cancelled shipping along the BC coast route due to loss of a major mining-related contract with Newmont Mining (CBC NewsNorth 2011). Service is also provided to Umingmaktok and Bathurst Inlet (NTCL 2011). Kugaaruk, the easternmost Kitikmeot community, is serviced by the Canadian Coast Guard from the nearest commercial destinations (i.e., Nanisavik by NSSI). The NSSI also ships to Cambridge Bay, Gjoa Haven, Kugluktuk, and Taloyoak from Montreal (NSSI 2011).

The general route for shipping supplies for the Doris North Project heads south and east from the Coronation Gulf into Melville Sound and Roberts Bay (Figure 14.5-1). Sea barges deliver annual supplies to the Project during the ice-free period, which usually lasts approximately six to eight weeks. A large sealift operation took place in 2010, carrying fuel, supplies and construction materials for Doris North and other aspects' activities of the Hope Bay Belt Project.

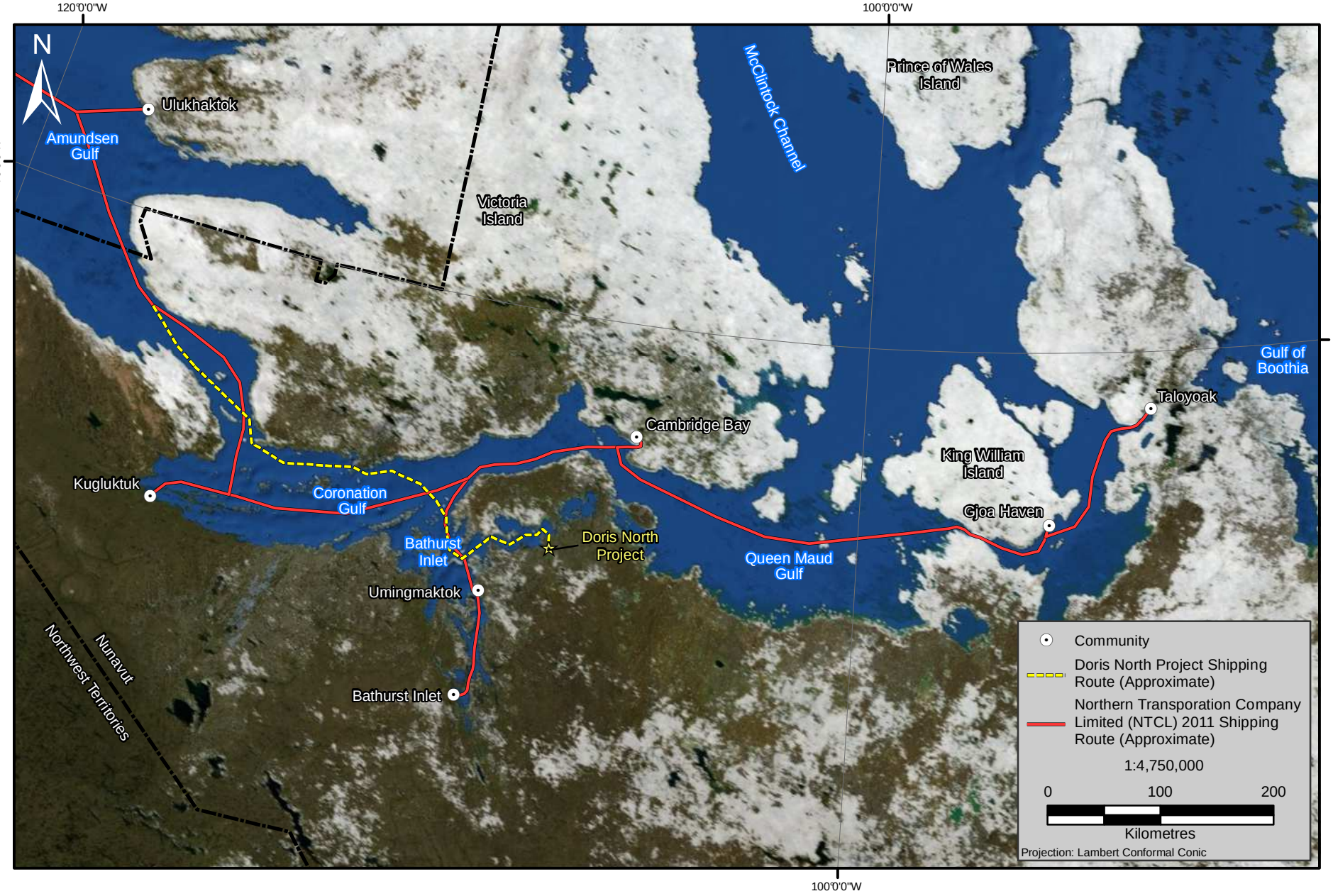

Figure 14.5-1

NEWMONT NORTH AMERICA

Marine Shipping Routes

Figure 14.5-1

Rescan Engineers & Scientists

15. Summary

15. Summary

Within the Kitikmeot Region there are seven communities – Bathurst Inlet, Umingmaktok, Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk. Cambridge Bay, a traditional hunting and fishing location, is the largest community, acting as a regional hub for government and business, as well as transportation to and from the region. Kugluktuk has a slightly smaller but growing population, with growth primarily attributed to opportunities in the government and mining sectors. Gjoa Haven, Taloyoak, and Kugaaruk have economies that are mainly based on the public sector and traditional subsistence land-based activities (Statistics Canada 2007). Bathurst Inlet and Umingmaktok are much smaller communities and have primarily seasonal populations related to traditional land-based activities and the tourism industry. All communities have exceptionally young populations in relation to the rest of Canada, with Kugaaruk's population being the youngest.

Formal education levels are low in all the Kitikmeot communities when compared to Canadian averages. The proportion of the population with formal education is slightly higher in Cambridge Bay, but is still well below the Canadian average. Reasons for abandoning education differ between males and females, with attraction to wage-labour and boredom being the most common reasons reported by young Inuit males and pregnancy and child rearing the most common reasons reported by young Inuit females. Most labour force experience in the Kitikmeot is in the service sector, which has a major presence in all the local economies.

Kitikmeot communities have high rates of unemployment among men and women. In 2006, the potential labour for the region was approximately 3,475 people, with an active labour force of 2,185 people, indicating a 62.9% participation rate - lower than the Nunavut average of 65.3% (Statistics Canada 2007). Among Kitikmeot communities, unemployment rates are typically higher than the Nunavut average (13%), ranging from 30% in Gjoa Haven to 21% in Kugaaruk, with the exception of Cambridge Bay, where the unemployment rate was approximately 10%. Income, both individual and household, is typically higher in Cambridge Bay than in the other Kitikmeot communities, and a greater percentage of income in Cambridge Bay comes from employment than in other Kitikmeot communities. The proportion of income from government transfers in Kitikmeot communities, other than Cambridge Bay, is typically higher than the Nunavut average (12.6%).

The traditional subsistence economy is of great importance to the livelihoods in the Kitikmeot Region. Many individuals within the communities are actively engaged in the traditional economy, and there is evidence that participation is increasing. Harvest activities include hunting, fishing, gathering, and trapping, with harvests being used mainly for food, clothing, and arts and crafts.

Overall, the Kitikmeot economy is characterized as mixed and is focused across three major sectors – public, private, and traditional. The public sector dominates and acts as a major economic driver for local communities. Cambridge Bay has a more diversified economy than the other communities, and is increasingly expanding into the private sector. Regional economic development is constrained by a lack of skilled labour, lack of infrastructure, and difficulties with transportation and distance from outside markets.

Housing challenges exist in all Kitikmeot communities. A high proportion of homes are crowded, especially in Gjoa Haven, Taloyoak, and Kugaaruk (57%, 56% and 50%, respectively). Public housing is the most common type of tenure, and dependence on the public sector for housing is likely to continue given severe economic, climatic, and geographic constraints on private sector involvement.

With respect to health within Kitikmeot communities, relatively high suicide rates are a concern. This has been attributed to recent rapid social change, resulting in a loss of self-reliance and a sense of discontinuity (Government of Nunavut 2010). Crime rates among Kitikmeot communities are highest in Cambridge Bay, Kugluktuk, and Gjoa Haven. Kugaaruk typically has low crime rates in relation to other Kitikmeot communities. General community well-being, as described by AANDC's CWB indicator, was low within Kitikmeot communities. Cambridge Bay and Kugluktuk scored somewhat higher, on or above the Nunavut average. Taloyoak, Kugaaruk, and Gjoa Haven scored exceptionally low (53, 55, and 56, respectively), particularly on the housing component of the index (27, 29, and 26, respectively).

Maintaining cultural knowledge, education, language, activities, and values are of high importance in Kitikmeot communities. There are two main languages within the region – Inuinnaqtun and Inuktitut. Although English is most often spoken at home, traditional languages are still spoken in some households, most commonly in Gjoa Haven, Taloyoak, and Kugaaruk. Elders' camps and other education activities are organized for youth, which allows them to learn about Inuit cultural and traditional practices through direct involvement.

There are numerous institutions responsible for territorial governance. Nunavut was created as a separate territory in 1999 in accordance with the *Nunavut Land Claim Agreement Act* (1993b) and the *Nunavut Act* (1993a). As part of the creation of Nunavut, the NLCA was negotiated between the Government of Canada and the people of Nunavut. In accordance with the NLCA, numerous governance institutions were created to operate separately, yet often cooperatively, with the Government of Nunavut.

In addition to territorial governance, there is hamlet governance for each community. Hamlet governments are typically responsible for public works, operations and maintenance, water, sewer, waste management, fire protection, wellness, justice, and economic development. Hamlet governments also lead community planning with the assistance of the Government of Nunavut.

Outside hamlet boundaries, land use planning is undertaken by the NPC following a territory-wide approach. Land use planning is currently underway and is expected to culminate in the production of the NLUP, which will guide future development in the territory. The NLUP is particularly important for the implementation of the NLCA.

As outlined in the NLCA, there are two main types of land tenure in Nunavut – IOL and Crown land. IOL is land that is vested in a Designated Inuit Organization, while Crown land belongs to the federal government. Access and rights are administered by RIAs for IOL and by AANDC for Crown land. Various licenses are required to access both types of land depending on the nature of the proposed projects.

There are both cultural and commercial land uses in the vicinity of the Hope Bay Belt Project. Cultural land use typically consists of hunting, trapping, fishing, camping, and travelling, and is guided by a longstanding relationship of reciprocity and respect between Inuit people and their environments. Commercial land use consists primarily of sport hunting, tourism, mining and mineral exploration, and transportation and shipping.

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