Izok Corridor Project Proposal

SECTION 6

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6 EXISTING HUMAN ENVIRONMENT

6.1 Introduction

The framework for the socio-economic impact assessment will be inclusive of the concepts of community well-being and quality of life; individual, family and community wellness; community capacity and the concept of the competent community (Annis 2005, Ribova 2000, Bowles 1981, Lotz 1977) with a focus on the Kitikmeot communities and, at higher level, the broader region. The Valued Socio-economic Components (VSECs) of the general "community assets" framework are summarized below.

The ***Human Assets*** of the socio-economic environment considers the skills and knowledge inherent in the community, the opportunities for growth and learning, access to skills and knowledge, and access to essential services that are fundamental in maintaining individual, family and community wellness. Baseline conditions related to this category include:

- Governance and Leadership
- Population Demographics
- Education and Skills Training
- Health, Safety and Social Services

The ***Economic Assets*** category considers the opportunities available to people for employment and participation in the economic life of the community and region, including the monetary or financial resources that people and governments use to achieve their economic objectives. Economic assets are key determinants of economic vitality. Baseline conditions associated with this category include:

- Economic Development
- Labour Force and Employment
- Wage Income and Income Support
- Non-Wage or Traditional Economy
- Contracting, Business Activity and Opportunities
- Non-Traditional Land Use and Tourism
- Financial Capacity

The ***Physical Assets*** category considers the basic infrastructure that allows a community to function effectively. The availability and quality of such physical assets serve to attract and retain people and investment in a community; they influence personal, family and community wellness. Baseline conditions associated with this category include:

- Housing
- Community Infrastructure and Services
- Transportation Infrastructure and Services

The ***Social Assets*** category considers the traditional and community activities in which people participate and the facilities or amenities that they draw upon to access them. It includes:

- Cultural, Archaeological and Paleontological Resources
- Traditional Activity and Knowledge
- Community Recreational Facilities and Programs

The ***Natural Assets*** category considers the biophysical environment upon which community well-being also depends. The natural assets are described in section 5.0 of this Project Proposal, and include the air, land, waters and wildlife.

In addition to these assets, three broad VSECs are considered not necessarily as assets, but desired **Community Well-Being Outcomes**. These are:

- Individual and Family Wellness
- Community Wellness
- Personal Security, including Financial and Food Security

6.2 Study Area

The Izok Corridor Project is situated in the Territory of Nunavut, within the Kitikmeot region (the Region), which is the most western of the three administrative regions within the Territory. The Region includes the three main population centres of Cambridge Bay, Kugluktuk and Gjoa Haven (**Figure 6.2-1**).

- Cambridge Bay is located 960 km northeast of Yellowknife and 1,600 km west of Iqaluit. Cambridge Bay is the largest community in the Kitikmeot region and home to the regional government.
- Kugluktuk is near the mouth of the Coppermine River. It is approximately 600 km north of Yellowknife and 450 km southwest of Cambridge Bay. It is the second largest community in the region.
- Gjoa Haven is located on southeastern shore of King William Island, 1,056 km northeast of Yellowknife.

The Region also hosts smaller communities of Kugaaruk and Taloyoak, with Bathurst and Umingmaktok, being used seasonally.

- Bathurst Inlet is a deep inlet located on the northern coast of Canada's mainland, which drains the Burnside and Western rivers. It is seasonally used by several residents of Cambridge Bay.
- Kugaaruk is located on the shore of Pelly Bay, just off the Gulf of Boothia in the Simpson Peninsula. Access is by air or by annual supply sealift.
- 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, best accessed by air from Yellowknife or Cambridge Bay or by barge.
- Umingmaktok is located on Bay Chimo harbour. The camp was established around an abandoned Hudson's Bay Company post. It is primarily a seasonal hunting and fishing camp.

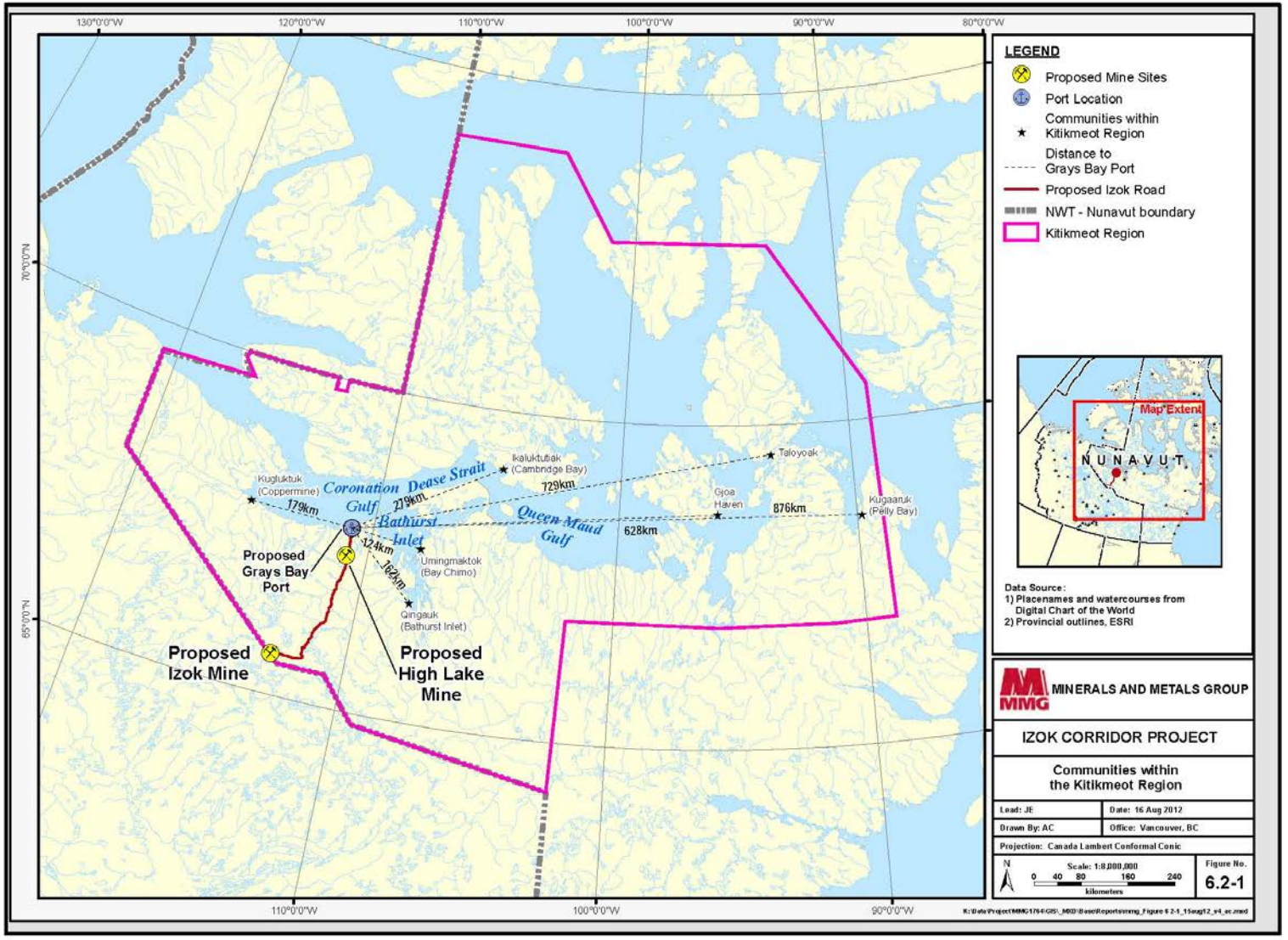

Figure 6.2-1 Communities within the Kitikmeot Region

6.3 Human Assets

This section provides an overview of governance and leadership, population demographics, education and skills training, health and safety and social services in the study area.

6.3.1 Governance and Leadership

The Territory of Nunavut was created in 1999, via the *Nunavut Act*[1] and the Nunavut Land Claim Agreement (NLCA). Nunavut has a public government with its legislative assembly located in Iqaluit, the territory's capital. There are no political parties in Nunavut, and the territory operates by consensus government. The Government of Nunavut (GN) has developed an action plan that demonstrates its leadership and responsibilities to all Nunavumiut. The action plan aims to pursue the government's mandated priorities set out in *"Tamapta: Building Our Future Together"* (Government of Nunavut 2009). The action plan focuses on improving education, reducing poverty and making the territorial civil service more efficient.

Hamlets across Nunavut are core-funded by the GN, under a formula based on population, need and other variables, and the Hamlets are mandated to deliver key services to the community. An elected Hamlet Council makes the decisions on community needs, and the Senior Administrative Officer and staff administer to those needs. Transfer payments to the communities are reflected in the GN budget.

Most of Nunavut's 1,994,000 km^2 is owned and managed by the federal government. Inuit owned lands comprise 18% of that area; 16% of which involves surface rights and the remaining 2% involve sub-surface mineral rights. In the Kitikmeot, the surface rights are vested with the Kitikmeot Inuit Association (KIA). Subsurface rights are held by Nunavut Tunngavik Incorporated (NTI). The federal department of Aboriginal Affairs and Northern Development Canada (AANDC) manages those lands and subsurface minerals on lands that were retained by Canada, as well as subsurface rights on 16% of Inuit owned lands. The Lands Department of NTI, located in Cambridge Bay, has responsibility for the management of Inuit owned lands, the environment, minerals, oil and gas and the marine environment. NTI has developed policies that guide the fulfillment of its responsibilities with respect to land management, including a Mining Policy, Water Policy, Mine Reclamation Policy and guidelines, a Uranium Policy and an Environment Policy.

The KIA also plays a role in land management through its responsibilities for management of surface rights on Inuit owned lands, and through its NLCA Article 39 obligations with respect the establishment of conservation areas and the negotiation and development of Inuit Impact Benefit Agreements (IIBA). The Kitikmeot Hunters and Trappers Organization (HTO) manage wildlife harvesting. All of the Inuit communities in the study area have a local HTO. Government funding to HTOs depends on the number of general hunting licenses within the community, fur returns and HTO work plans (Rescan 2008).

6.3.2 Population Demographics

Nunavut's population continues to grow rapidly. Since 1981, the population of the territory and the Kitikmeot region has almost doubled. As shown in **Table 6.3-1**, the Nunavut Bureau of Statistics reported the 2011 population of the Kitikmeot region at 6,012 persons. This represents approximately 19% of Nunavut's population and an increase of approximately 651 persons (12%) since 2006. The communities

with the largest populations are Cambridge Bay (1,608 persons), Kugluktuk (1,450 persons) and Gjoa Haven (1,279 persons). Each of these communities has also experienced growth since 2006, with Gjoa Haven growing by approximately 20%. The three smaller communities and unorganized areas of the Region have a combined population of approximately 1,675 persons.

Table 6.3-1 Population in Nunavut and the Kitikmeot Region 1981 – 2011

	1981	1986	1991	1996	2001	2006	2011
Nunavut	15,572	18,408	21,244	24,730	26,745	29,474	31,906
Kitikmeot	2,945	3,447	4,025	4,644	4,816	5,361	6,012
Bathurst Inlet	20	16	18	18	5	0	0
Cambridge Bay	815	1,002	1,116	1,351	1,309	1,477	1,608
Gjoa Haven	523	650	783	879	960	1,064	1,279
Kitikmeot Unorganized[1]	30	45	7	0	0	21	0
Kugaaruk	257	297	409	496	605	688	771
Kugluktuk	809	888	1,059	1,201	1,212	1,302	1,450
Taloyoak	431	488	580	648	720	809	899
Umingmaktok	60	61	53	51	5	0	5

Source: Nunavut Bureau of Statistics (2011b)

In terms of demographics, there is roughly an equal proportion of males and females in the population. A large segment of the population, nearly 50% in some communities, is youth. As such, the number of females of child-bearing age is expected to remain high. The populations of Kitikmeot communities have the potential to grow for years to come unless the young population chooses to leave the Region to other regions of Nunavut or Canada. To this end, migration has long been a part of Inuit traditional culture and continues today for more economic than subsistence reasons.

6.3.3 Education and Skills Training

In Nunavut, the task of providing education falls within the mandate of the GN Department of Education. The department provides education programs from kindergarten through to post-secondary schooling.

Graduation rates in the Kitikmeot are rising, but the total numbers of graduates are still low. Furthermore, young Inuit attending primary schools are showing increased rates of poor attendance and in some cases, dropping out from school prior to completing their graduation. Experience has shown that teenage students around the age of 16 are the most likely to drop out, specifically young males.

Schools in the Kitikmeot from kindergarten through to Grade 12 follow Inuuqatigiit, which is a culture-based curriculum from the Inuit perspective. Inuuqatigiit was developed by Inuit educators and grounded in the belief of the Elders that education must be community based. This curriculum is intended to develop pride of identity and language in the students. Since 1995, Health Canada has assisted the GN through the Aboriginal Head Start Program (AHS), a special pre-school education program for young children. The AHS is currently being offered in Kugluktuk, Gjoa Haven and Taloyoak.

Nunavut Arctic College (NAC) plays a key role in furthering education in Nunavut, and thereby furthering both the GN's Adult Learning Strategy and the NTI's employment objective under Article 23 of the NLCA. As the primary provider of post-secondary education, training and skills, NAC has developed a series of key programs that attempt to develop skills to address both the needs of Nunavummiut seeking employment and the skill sets required by industry.

The NAC offers a range of educational programs for adult learners in three campus locations in Nunavut: Cambridge Bay (Kitikmeot Campus), Rankin Inlet (Rankin Campus), and Iqaluit (Nunatta Campus). The Kitikmeot Campus includes classrooms, administration facilities and student residences. The NAC also has 24 Community Learning Centres (CLCs) across Nunavut. The Kitikmeot CLCs are located in Kugluktuk, Gjoa Haven, Kugaaruk and Taloyoak. The Kitikmeot Campus of NAC course offerings are delivered both on-campus and throughout the region through CLC. While many of the courses focus on academic upgrading in advance of further training, the college does offer single and multi-year certificate and diploma programs. Some university courses and other special programming are delivered in partnership with university and college institutions from outside of Nunavut.

6.3.4 Health, Safety and Social Services

A variety of health, safety and social services are shared among Kitikmeot communities, with Cambridge Bay being the regional service centre. These services are provided by various GN government departments and agencies (i.e., Community and Government Services, Health and Social Services) as well as Hamlet governments. Hamlets also seek independent funding from developers, trusts, foundations, and federal programs, so as to support other initiatives they wish to undertake. **Table 6.3-2** provides a summary of the health, safety and social services available to Kitikmeot residents.

Table 6.3-2 Health, Safety and Social Services in the Kitikmeot

	Type	Service	Community	Beneficiaries
Health Service	Regional Health Centre	• 24 Hours Emergency • Short Term Health Care • Physician on Staff • Palliative and Birthing Care • Audiology • Trauma care	• Cambridge Bay	• All residents of the Kitikmeot (limited access)
	Community Health Centre	• Primary Care • Tele-health service • Nursing Station • No Physician	• Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk	• All residents (limited access)
	Med-flight Air Ambulance	• Emergency Medical Service	• Kugaaruk	• All residents (limited direct services)

	Type	Service	Community	Beneficiaries
Wellness Services	Community Wellness Centre	• Child Protection Services • Initiating alcohol and drug counselling • Hot-Line Service • Drug and Alcohol Programs • Gambling Addiction • Family Violence • Elders Centre and Program • Counselling	• Cambridge Bay, Kugluktuk • Cambridge Bay	• All residents (limited access) • Cambridge Bay Residents
Safety	Royal Canadian Mounted Police	• Policing • Crime Prevention • Traffic Safety	• Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk	• All residents (limited service)
	Fire Department	• Firefighting • Emergency response • Fire prevention	• Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk	• All residents
Social Service	Daycare	• Child care 18 months and over	• Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk	• All residents,(limited access)
	Housing	• Subsidized Housing	• Cambridge Bay, Kugluktuk, Gjoa Haven, Taloyoak, Kugaaruk	• All residents (limited access)
	Women's Shelter	• Psychiatric Nurse • Shelter and Food	• Cambridge Bay, Kugluktuk	• All residents (limited access)

6.4 Economic Assets

This section provides an overview of Nunavut's economy, components of Gross Domestic Product (GDP), and future economic opportunities (i.e., Non-Traditional Land Use and Tourism) and issues that affect Nunavut's economic development overall. This overview is followed by a summary of data related to Nunavut's labour force and employment characteristics; personal income (i.e., employment income) and income support; and the non-wage economy.

6.4.1 Overview of Nunavut's Economy and State of Economic Development

Nunavut's wage-based economy is sustained largely by the activities of the public sector (Statistics Canada 2011a). This includes spending on program delivery, grants and contributions, transfers to individuals, businesses and communities, and health, education and defense. The influence of the public sector on the economy expands further when considering the indirect and induced effects from this spending. Most public sector activities come from GN spending, while most of its revenues are collected through transfers from the federal government. The GN receives approximately 90% of its total revenues via federal government transfers determined by the Territorial Formula Financing (TFF) agreement (Government of Nunavut 2012a).

The dependence on the government can have a stabilizing effect on the economy. For example, the 2008-2009 economic recession was not as evident in Nunavut as in other parts of the country. There was a noticeable halt to many resource-based and private-sector-led initiatives but government activities continued. These were spurred on by the Canadian Economic Action Plan that contributed to additional infrastructure spending. However, it must be noted that lack of consistent funding from the government can also have a destabilizing effect on the economy. Changes in budget allocations can affect the delivery of government programs that rely on those funds.

The largest private sector within the economy is the mineral exploration and mining sector. This sector holds the most potential for future expansion of GDP, employment and financial wealth. Currently, the Meadowbank Gold Mine owned and operated by the Canadian miner Agnico-Eagle Mines is the only active mine in Nunavut. It is located in the Kivalliq region northwest of Baker Lake. Production began in 2010 and is expected to continue until 2016. As of August 2011, there were 1,235 people working directly for the project, of which 289 were Inuit beneficiaries (Kivalliq SMEC 2011).

There are other potential mining projects in the Kitikmeot region. Several base metal, gold, silver, and diamond deposits in the region are in various stages of exploration and development. There are also other important economic sectors within Nunavut's economy that contribute to its diversification and job opportunities for labour. The Northwest Company is Nunavut's largest single private-sector employer through its chain of retail and grocery stores. Most of this sector's activities are directly or indirectly associated with government residential or non-residential investments and the mining sector.

Other sectors include tourism, fishing, food processing, and the arts sector and cultural industries. These are all currently small contributors to the wage-based economy relative to the public sector or mining sector but are still developing. Food processing is a small, but important element within the Kitikmeot regional economy. It processes specialty foods from char and muskox that are harvested locally. Tourism in the Kitikmeot provides for small economic opportunities. The main non-business tourist destinations in the Kitikmeot region are Bathurst Inlet, centred on the Bathurst Inlet Lodge (Rescan 2008) and Cambridge Bay, which offers three hotels (Rescan 2008). The community of Kugluktuk also hosts a range of tourism and cultural businesses, including an 18-hole golf course and the Northwest Passage Interpretive Centre and Historical Park.

6.4.2 Labour Force and Employment

Most jobs found in Nunavut are located in the territorial capital of Iqaluit. This is where most public administration jobs (territorial and federal) are located, along with the territorial hospital, several schools and Inuit organizations. The presence of these government and Inuit jobs has given rise to an expanding service industry in Iqaluit, which is attracting more migration of Nunavummiut from other Nunavut communities.

For those communities that do not have a decentralized GN department and are otherwise untouched by any resource development, few jobs exist beyond those required for Hamlet administration and maintenance and the public sector, and few new jobs are ever created.

Communities that have some GN presence because of the decentralization of departments serve as regional centres and have better-developed economies in areas such as fishing, arts or tourism. There are 10 communities where the GN has decentralized its operations, of which three of these located in

the Kitikmeot region. These include Cambridge Bay, Kugluktuk and Gjoa Haven, along with Igloolik, Rankin Inlet, Cape Dorset, Arviat, Pangnirtung, Baker Lake and Pond Inlet.

Table 6.4-1 provides labour market statistics for Nunavut. In 2011, 66.8% of the source population participated in the labour market, meaning they held jobs or were unemployed but were actively seeking work. The unemployment rate, which is calculated from the labour force rather than the source population, was 16.5% versus a national rate of 7.3% (Statistics Canada 2012). **Table 6.4-2** presents labour market data specifically for the Kitikmeot communities.

Table 6.4-1 Labour Force and Employment Characteristics for People Aged 15 and Over, Nunavut, 2010 to 2011 (Annual Averages)

	2010	2011
Total Population Aged 15 and Over	**20,900**	**21,100**
Labour Force	13,700	14,100
Employment	11,700	11,800
Unemployment[1]	2,100	2,300
Participation Rate (%)	65.5	66.8
Employment Rate (%)	55.7	55.8
Unemployment Rate[1] (%)	15	16.5
Inuit Population Aged 15 and Over	**16,300**	**16,400**
Labour Force	9,400	9,800
Employment	7,600	7,500
Unemployment[1]	1,900	2,200
Participation Rate (%)	57.9	59.6
Employment Rate (%)	46	46.2
Unemployment Rate[1] (%)	20.5	22.5
Non-Inuit Population Aged 15 and Over[2]	**4,600**	**4,700**
Labour Force	4,300	4,300
Employment	4,200	4,200
Participation Rate (%)	92.3	91.9
Employment Rate (%)	89.5	89.2

Note(s): The data in this report have been adjusted to reflect the 2006 Census population estimates. All LFS data have been revised back to 1996, except the data for Nunavut which have been revised back to 2004.

1 Use the unemployment estimates with caution as they tend to have a higher variability than employment estimates

2 Unemployment estimates for non-Inuit are suppressed due to their small numbers

Source: Nunavut Bureau of Statistics (2011b)

Table 6.4-2 Labour Force and Employment Activity for the Total Population 15 Years and Over, for Nunavut, Kitikmeot Region and Communities, 2006 Census

	Total – Population 15 years and over	In the Labour Force	Employed	Unemployed	Not in the Labour Force
Nunavut	19,340	12,635	10,670	1,965	6,705
Kitikmeot region	3,490	2,205	1,760	440	1,295
Cambridge Bay	1,020	720	650	70	300
Gjoa Haven	660	410	290	120	255
Kugaaruk	400	230	185	50	170
Kugluktuk	895	545	425	120	350
Taloyoak	495	285	200	80	215

Notes:

1 Data may not add up to totals due to random rounding.
2 Nunavut totals include data for settlements and unorganized areas.
3 See the last worksheet for definitions.

Source: Nunavut Bureau of Statistics (2008)

Labour force data reveal some discrepancies between Inuit and non-Inuit labour. Geography and education are contributing factors in this discrepancy. Most non-Inuit live in Iqaluit where the majority of employment opportunities are located. The majority of non-Inuit also have at least a high school education. Inuit represent the large majority of communities outside Iqaluit and, according to the *2006 Census*, 69% of that population aged 15 and older did not have a high school certificate (Statistics Canada 2008).

Table 6.4-3 presents community labour market data from the *2006 Census* (2011 census data is not yet available). As these data are five years out of date, some caution should be used in its interpretation. In general, the Kitikmeot labour market is weaker than the other two regions, with a lower percentage of employment. The community data reveal the discrepancy between Cambridge Bay where the unemployment rate is below 10% but above 20% everywhere else.

Table 6.4-3 Labour Force and Employment Activity for the Total Population 15 Years and Over for Nunavut, Kitikmeot Region and Communities, 2006 Census

	Participation Rate (%)	Employment Rate (%)	Unemployment Rate (%)
Nunavut	65.3	55.2	15.6
Kitikmeot region	63.2	50.4	20.0
Cambridge Bay	70.6	63.7	9.7
Gjoa Haven	62.1	43.9	29.3
Kugaaruk	57.5	46.2	21.7
Kugluktuk	60.9	47.5	22.0
Taloyoak	57.6	40.4	28.1

Notes:

1 Data may not add up to totals due to random rounding.
2 Nunavut totals include data for settlements and unorganized areas.
3 See the last worksheet for definitions.

Source: Statistics Canada (2008)

6.4.3 Wage Income and Income Support

Income levels throughout Nunavut and the Kitikmeot region closely mirror the employment data. Average personal income in Nunavut is close to the rest of the country, but only for the population of income earners (**Table 6.4-4**). In the Kitikmeot region, the median after-tax income level is approximately $6,000 higher than the remaining four communities (**Table 6.4-5**).

Table 6.4-4 Average and Median Income Levels for those with a Source of Income

	Nunavut	Canada
Median 2005 After-Tax Income $	20,042	23,307
Average 2005 After-Tax Income $	28,781	29,214

Source: Statistics Canada (2007a)

Table 6.4-5 Median Income, Persons 15 Years and Older

	Before Tax	After Tax
Cambridge Bay	26,061	24,016
Gjoa Haven	16,606	16,192
Kugaaruk	18,304	16,512
Kugluktuk	18,336	17,259
Taloyoak	15,744	15,360

Source: Statistics Canada (2007b)

The high cost of living in Nunavut reduces the purchasing power of this income. Nunavut's median income is low when compared to the national average, which indicates that a larger percentage of the population live close to or below the poverty line[1]. In 2008-2009, nearly half the population received some form of income support (**Table 6.4-6**). A similar percentage of the population reside in social housing, where rent for most tenants is $60 per month (Nunavut Housing Corporation 2011).

Table 6.4-6 Nunavummiut Receiving Income Support, 2008-2009

	# of People
Social Assistance	15,523
Senior Citizen's Supplementary Benefits	679
Nunavut Child Benefits	5,815

Source: Government of Nunavut, Department of Education, Social Support Statistics (estimates)
Non-wage or Traditional Economy

The "non-wage" or "traditional" economy, which includes subsistence hunting, trapping, domestic fishing and gathering plants, has always been regarded as being of utmost importance to the Nunavut economy. As elsewhere in Nunavut, this remains true in the Kitikmeot. However, anecdotal evidence suggests that the role of traditional hunting and gathering is continuing to shift from one that sustains the economy to one that sustains the culture. Ultimately, traditional Inuit sharing patterns are made possible by the work related wages. In addition to the wage economy contributing to cultural activities,

[1]Note that Nunavut does not have an official poverty line. Instead, one can look at the penetration of the GN's income support program to understand the extent of financial poverty.

the subsistence non-wage economy is also a growing industry. The GN (2007) noted that this sector generated an estimated $30 million in sales in 2003, and sales were expected to grow to $50 million by the year 2013. Government support for traditional activities includes a guaranteed prime fur price schedule, which is reviewed annually. Subsidies are available for fur vendors. The Community Harvesters Assistance Program also provides financial assistance to hunters and trappers (Rescan 2008).

6.4.4 Financial Capacity

The GN receives more than 90% of its revenues from federal government transfers. The majority of these transfers are through an agreement called the Territorial Formula Financing Agreement (TFF*).*

Other federal transfers include the Health and Social Transfer, which is a transfer that all provinces and territories receive and is based strictly on population.

Table 6.4-7 provides estimates of the GN's revenue sources for 2012-2013.

Table 6.4-7 Government of Nunavut Revenue Sources, 2012-2013

	Revenue Sources	Estimates 2012-2013 ($000)
Federal Transfers	Formula Financing Arrangement	1,273,498
	Other Federal Transfers	82,600
	Total Federal Transfers	**1,356,098**
Own Source Revenues	Personal Income Tax	18,400
	Corporate Income Tax	8,400
	Fuel Tax	4,200
	Property Tax and School Levies Tobacco Tax	2,700
	Tobacco Tax	14,600
	Payroll Tax	22,300
	Insurance Taxes	700
	Liquor Commission, net cost of goods sold	5,265
	Petroleum Products Division, net cost of goods sold	13,261
	Rental Recovery – Staff Housing	15,500
	Other Revenues	14,900
	Recovery of Prior Years' Expenditures	-
	Total Own Source Revenues	**120,226**
Total Revenues		**1,476,324**

Source: Government of Nunavut (2012a)

The GN's main estimates for the 2011-2012 Operations and Maintenance Budget for the Kitikmeot region is $150,958,000. Along with these Operations and Maintenance monies, the Region shares an annual territorial capital budget that in 2011-2012 totalled $122,476,000.

6.5 Physical Assets

This section provides an overview of Nunavut's housing, community infrastructure and services and transportation infrastructure and services, with a focus on the Kitikmeot region.

6.5.1 Housing

Public housing in Nunavut is managed by the Nunavut Housing Corporation (NHC). The NHC undertakes a regular Nunavut Housing Needs Survey (NHNS) to collect data on the housing needs of Nunavummiut to assist them in planning and providing housing. **Table 6.5-1** provides the number of housing units in the Kitikmeot in 2001 and 2011. The data show that, over the past decade, the number of rented and owned dwellings has increased. Most of the housing occupied by residents of the Kitikmeot region is classified as public housing, which made up slightly less than two-thirds of all occupied dwellings. The second most common type of housing was owner-occupied dwellings, representing about 1 dwelling out of 4. The remaining occupied dwellings were staff housing and other types of rented housing. Despite the increase in housing stock, there remains a lengthy waiting list for available housing.

Table 6.5-1 Housing Stock in the Kitikmeot Region, 2001 and 2011*

Year	Overall Kitikmeot region	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
2001	1,060	315	310	160	140	135
2011	1,600	540	430	230	220	170
Percent Change	51%	71%	39%	44%	57%	26%

Source: Nunavut Bureau of Statistics (2012) and Statistics Canada (2001c)

* No information was available for the communities of Bathurst Inlet and Umingmatoq

According to the National Occupancy Standard (NOS) crowding measure, the proportion of unsuitable dwellings in Nunavut was 35%. The Kitikmeot communities of Gjoa Haven, Arctic Bay, Taloyoak and Kugaaruk had above-average prevalence of unsuitable dwellings of 57, 45%, 56% and 50%, respectively.

6.5.2 Community Infrastructure and Services

Hamlets in Nunavut are responsible for providing community infrastructure and services. For the most part, water is distributed to individual households via a daily truck run or by ordering water through a designated local company provider. Sewage is pumped out from individual homes. Each of the communities operates a landfill facility.

6.5.3 Transportation Infrastructure and Services

Nunavut's road infrastructure has been driven by the need to access non-renewable resources. The Kitikmeot region has no all-season roads only seasonal ice roads. At present, interest in expanding road infrastructure in Nunavut in general and the Kitikmeot in particular is linked to mining operations and meeting their supply needs (Nunavut Resources Corporation 2011; Nunatsiaq Online 2010).

Aircraft are the primary means of transportation within Nunavut. Nunavummiut fly more often than any other people in Canada. Most communities in Nunavut are served by a Transport Canada certified or registered airport. There are also several special purpose or private airstrips developed to serve the resource industry.

The Kitikmeot region has airports in Cambridge Bay, Kugaaruk, Kugluktuk, Kugaaruk and Taloyoak. The main airline carriers in the region are First Air, Canadian North and Kenn Borek Air (Nunavut Handbook 2004).

Efforts are underway to expand transportation arrangements in Nunavut. In December 2010, Kitikmeot Inuit Association (KIA) and First Air announced a transportation agreement for beneficiaries in Nunavut. The agreement includes reduced costs to KIA beneficiaries and special cargo rates to facilitate the shipment of such cargo as snowmobiles and ATVs. In addition, First Air will be providing employment and training opportunities (KIA 2010).

Deep-water ports are limited in Nunavut; there are none in the Kitikmeot. Surveys of potential locations for deep-water ports have taken place over the past 30 years. Deep-water ports are considered important for commercial fishing, tourism and business opportunities such as mining, which requires this type of infrastructure. Within the Kitikmeot, each of the communities have small craft dock systems or barge landings to receive annual resupply shipments and allow use of small boats. The major shipping operation within the region is Western Arctic Re-supply, which originates in Hay River, Northwest Territories and serves all of the communities in the Kitikmeot, except Kugaaruk.

6.6 Social Assets

6.6.1 Cultural, Archaeological and Paleontological Resources

This section provides an overview of cultural and archaeological resources, traditional activity and knowledge, and community recreational facilities and programs. Cultural, archaeological and paleontological resources are critical for understanding the history of Nunavut and are valued by Kitikmeot community members. Archaeological resources are important sources of historical knowledge and Inuit cultural heritage and identity. Local communities, regional Inuit organizations, including the KIA, the Inuit Heritage Trust (IHT) and the GN all consider archaeological sites to be a valuable asset. Archaeological sites in Nunavut are protected by Articles 33 and 34 of the NLCA, the GN's *Historical Resources Act* and the Nunavut Archaeological and Paleontological Site Regulations. Protection of paleontological resources in Nunavut is governed by the GN under the Nunavut *Archaeological and Paleontological Sites Regulations*.

The Izok Corridor Project spans two very different regions, archaeologically and culturally. The majority of the area is within the Central Inuit region, but the southern section encompasses the northern portion of Dene Athapaskan Indian range. There is evidence that people have occupied the central Arctic mainland region for at least 3,500 years when the first sites of the Arctic Small Tool Tradition have been dated. It is apparent that primary focal points for past people in this region were the coast between Bathurst Inlet and the Coppermine River, the entire Coppermine drainage system, major river valleys particularly the Hood and the James, and Contwoyto and Itchen lakes.

Paleontological resources (e.g., fossils) are direct and integral part of the bedrock geology of an area. They are not man-made but natural and integral part of an ancient rock. The geology of the area does not show fossil bearing rock formation. There are no fossils or other paleontological resources found or recorded in the Project area to date.

6.6.1.1 Introduction

The following sections describe existing information on archaeological resources within the study area of the Izok Corridor Project, as a baseline from which potential direct and indirect effects of the Project can be identified and evaluated. Archaeological resources are non-renewable, finite resources. They are often not readily identifiable by the untrained eye, and can be directly disturbed by any activity that causes ground disturbance.

Article 33.4.3 of the NLCA specifies the responsibilities of the Inuit Heritage Trust to support, encourage and facilitate the conservation, maintenance, restoration and display of archaeological sites and specimens in the Nunavut Settlement Area. This protection is further clarified under the Nunavut *Archaeological and Palaeontological Sites Regulations* (NAPSR), which are administered by the Government of Nunavut (GN). The GN Department of Culture, Language, Elders and Youth (CLEY 2003) reviews reports and approves final recommendations regarding site mitigation. In addition to NASPR, the federal *Territorial Land Use Regulations*, administered by the Department of Aboriginal Affairs and Northern Development Canada, prohibits activity within 30 m of a known or suspected archaeological site or burial ground located on federal Crown land.

Important elements related to archaeological resources include the characteristics of the site assemblage and the integrity of archaeological resources within the site. There are different types of sites, and each site is unique. All archaeological sites form an assemblage that provides cultural information concerning past people who have used the area. Various types of sites provide different information about people's temporal and spatial ranges and the types of activities that occurred. The maintenance of some representation of these different types of sites on a regional basis is important. For example, if a particular type of site is found frequently in the region, there is a lower need to try to preserve each example as long as a representative sample can be maintained. However, in the case of comparatively unique sites, particularly sites of high importance, efforts must be made to avoid disturbance or loss.

Rock features provide cultural information by construction attributes of the features and their internal site relationships. The context of artifacts is a crucial aspect of the information content and that information is lost through the displacement or removal of artifacts. Much can be learned about past activities from an artifact's location and its relationships to other artifacts and features. Additional information can be obtained from studying the artifact's attributes, for example, style, shape, manner of construction and evidence of use or breakage patterns. It is important that artifacts be studied in their original place and that no part of the artifact assemblage is lost without prior study.

Burial sites and very large, intensively used or exceedingly rare sites are exceptions. However, most archaeological sites do not fall into those categories.

6.6.1.2 Study Areas

Local Study Area

The Project footprint is the land area directly disturbed by construction, operation and closure activities associated with each of the key Project components, including the High Lake Mine site and the Izok Mine site, which includes mining activities and associated infrastructure; the Grays Bay Port including

the docking and storage areas; and Izok Road and winter access roads linking the Izok and High Lake mines to Grays Bay. The Local Study Areas (LSA) encompasses the footprints of these Project components plus a 1 km buffer (0.5 km on each side).

The LSA comprises the zone within which direct and indirect effects of the Project are most likely to occur. Effects on archaeological sites are location specific and direct effects are not expected to occur outside of the LSA.

Regional Study Area

To provide the appropriate spatial and temporal context, the Regional Study Area (RSA) encompasses the area traditionally used by the Copper Inuit (as defined by early ethnographers), as well as the northern portion of the Yellowknives and Tlicho ranges. Consequently, the RSA extends from just west of Kugluktuk, north to encompass the southern portion of Victoria Island, east to include Kent Peninsula and Bathurst Inlet, southeast to Contwoyto Lake, and southwest to just east of Great Bear Lake, encompassing the northern portion of the Coppermine drainage system.

6.6.1.3 Existing Archaeological Baseline

The majority of the Izok Corridor Project area is within the Central Inuit region, but the southern section encompasses the northern portion of Dene Athapaskan Indian range. This means that two different historical cultural sequences need to be considered.

A large ice sheet covered this region until approximately 9,000 years ago and movements of the glacier sculpted the landscape. As the ice sheet receded, large lakes formed, boulders and gravels were deposited, and the ground rose and various levels of ocean beach ridges were formed. These landscape features determine where people will go.

There is evidence that people have occupied the central Arctic mainland region for at least 3,500 years when the first sites of the Arctic Small Tool Tradition have been dated. The Thule people appeared about 1,000 years ago, and the Copper Inuit about 400 years ago (McGhee 1978). From documentary sources, it is apparent that primary focal points for past people in this region were the coast between Bathurst Inlet and the Coppermine River, the entire Coppermine drainage system, major river valleys particularly the Hood and the James, and Contwoyto and Itchen lakes. The main river valleys and long, continuous sections of eskers provided important routes for people to travel inland from coastal areas or from the south. During the spring, summer and fall, the region was used primarily for caribou hunting, although other animals such as muskox and fox were hunted, and other resources may have been gathered as necessary. Seals were hunted along the coast and fish were captured at river mouths and in lakes.

The vicinities of Itchen and Contwoyto lakes were also used by Athapaskan Dene from the central Barrenlands, specifically the Yellowknives and the Tlicho in late prehistoric and early historic times. The culture history of the central Barrenlands extends back as long as 7,500 years ago. Various cultural traditions have been identified to the south of the present study area, all thought to result from human movements due to climatic changes. Northern Plano tradition represents the earliest recognized occupation of the central Barrenlands, thought to date around 6,000 to 7,500 years ago. Barrenland Arctic Small Tool tradition (ASTt), or Canadian Tundra tradition (Gordon 1977), is thought to represent a

southward migration of Arctic coastal hunters and dates roughly 3,500 to 2,700 years ago. The ASTt was replaced in the Barrenlands by what is known as the Taltheilei tradition, suggested to have moved in from the southeast between approximately 2,500 years ago to A.D. 1800. This tradition is considered by some researchers (e.g., Noble 1981) as a major ancestral Athapaskan tradition and is widespread across much of the historic Yellowknife people's homeland.

In general, survival for people living on the Barrenlands was largely dependent on the barren-ground caribou; consequently, their travels were governed by the movements of the caribou. All Dene inhabitants of this region followed a similar nomadic lifestyle moving with the caribou, north onto the Barrenlands in the summer and south into the forest fringes in the winter. Fish also formed an important component of the diet and were taken throughout the year, by nets in summer and ice fishing in winter. Within this region, people gravitated to major caribou grazing areas and the large lakes and rivers.

Izok Mine Local Study Area (LSA)

Prior to a study conducted in 2008 in relation to the Izok project (Prager 2009), four previous archaeological studies Damkjar 1994, Fedirchuk 2001, Tischer 2002) examined parts of the Izok Mine area and associated road alternatives to Lupin/Contwoyto Lake area. These studies resulted in the recording of over 100 archaeological sites, many around Ham and Iznogoudh lakes and along the north Itchen Lake shore. In 2008, the locations of those sites were compared to the mine and road plans at that time and those sites that appeared to be close were revisited (Prager 2009). Specific areas proposed for siting of infrastructure around Izok Lake were surveyed by ground traverses.

Four sites were recorded to the east (LjPc-11, 12, 13, 31), and two sites were found to the west (LjPc-28, 29) along the narrows. Five sites are known along the shore of Iznogoudh Lake (LjPc-10, 19, 27, 30, LkPc-5) heading toward the airstrip and exploration camp at Ham Lake. In the Ham Lake area, there are numerous sites recorded on the long esker north of the camp and airstrip, and five sites are recorded in the immediate area of the camp and airstrip (LkPc-1, 10, 14, 15, 20).

The proposed mine site layout will be compared to that examined previously to ensure that currently proposed infrastructure locations have been covered by the inventory surveys. All revised sections of the mine footprint, in particular the plant site, revised access road and diversion channel, will be subject to intensive ground reconnaissance to complete the inventory and identify all archaeological resources that may be affected by the Project. Locations of all recorded sites will be compared to the latest mine infrastructure plans. Any sites that are identified to be close, that were not visited in 2008, will be revisited to ascertain their status, both in terms of site condition and position relative to possible effects.

High Lake Mine LSA

The High Lake Mine footprint as proposed in 2004-2006 was thoroughly examined by pedestrian traverses (Bussey 2005; Prager 2006, 2007). One archaeological site (MiNu-1) was recorded on the east side of High Lake (Bussey 2005). This site, a single open cache, was assigned low archaeological site significance and was mitigated by detailed mapping in 2006 (Prager 2007).

Under the current plan for the High Lake Mine site, the footprint will likely be smaller than that proposed in 2006. Consequently, additional ground reconnaissance is not required. However, a comparison between the current footprint and the previous proposed footprint will be made to confirm that the area has been fully inventoried and no additional archaeological sites are at risk of disturbance due to the Project.

Izok Road LSA

Previous studies related to the High Lake project (in 2004, 2005, 2006), the Izok Mine project and the Bathurst Inlet Port and Road project (in 1993, 2001, 2002) resulted in the recording of over 100 archaeological sites along potential road routes. Revisits were conducted in 2008 of all the sites (approximately 50) judged to be in close proximity to the proposed road route (Prager 2009). In addition, ground reconnaissance conducted in 2008 recorded an additional 46 archaeological sites, all within or adjacent to the roads as proposed at that time. It must be noted that the route had not been finalized at the time of the 2008 archaeological field work.

The only portion of road that has received intensive archaeological investigations to date was the section extending 12 km north of High Lake Mine site to the Sand Lake airstrip (Prager 2007). That assessment involved ground reconnaissance of most of the road and associated borrow sources, as well as detailed assessment or systematic data recovery at seven sites (MiNu-5, MiNu-6, MiNu-7, MiNu-8, MiNu-10, MiNu-11, MiNu-12).

All revised sections of the road alignment will be examined by air and on ground. All associated construction facilities, particularly proposed borrow sources and camps, will be assessed by low and slow helicopter overflight and selected sections examined by ground traverses. Locations of all recorded archaeological sites will be compared to the final Izok Road and winter road alignments. Sites that are identified to be close but were not assessed in 2008 will be revisited to ascertain their status, both in terms of site condition and position relative to possible effects.

Grays Bay Port LSA

At the Grays Bay Port site, the entire peninsula was extensively covered by pedestrian traverses in 2004 (Bussey 2005), 2005 (Prager 2006) and 2006 (Prager 2007). Two large sites, MkNu-2, MkNu-4, are situated in the lower northwestern portion of this landform. Four sites (MkNu-4, 5, 6, 10, 12) were recorded in the pass. Two sites (MkNu-3, MkNu-8) are located in the high, central part of the headland, and one (MkNh-7) is situated on the lower rocky west side. All nine sites are located within or in close proximity to the current proposed port footprint.

The archaeological sites at Grays Bay range from small to large in size, all contain stone features, and two also contain stone artifacts indicating considerable age. The two biggest sites (MkNu-2 and MkNu-4) contain a large quantity and wide variety of stone alignments and stone clusters. The suggested functions include tent rings, skin drying circles, caches, and support rocks for drying racks or kayaks. Various artifacts of wood, bone, antler and possibly ivory are present. The differences in the feature locations, shapes and sizes and construction methods suggest occupation at different periods of time, although seasonal use or different functions may also account for some of the variety. In general, the use of this section of coastline appears most intensive during the Copper Inuit historic period, but evidence of use as early as 3,500 years ago was found on the higher portion of the landform.

At the port site, one final series of closely spaced transects to cover the entire landform will complete the inventory survey. Additional work will first comprise detailed mapping to scale at those sites for which this is not yet complete. An intensive and extensive subsurface testing program will be necessary at those sites that have some soil, vegetation cover, and/or potential for obscured remains (i.e., MkNu-2, 4, 5, 6, 12).

6.6.1.4 Existing Archaeological Conditions Summary

There are approximately 150 recorded archaeological sites that potentially exist within the Izok Corridor Project LSA. While some of these sites are scattered through the study area, many are concentrated in specific areas around Grays Bay, Itchen Lake, Iznogoudh Lake, Ham Lake, Hood River, and James River.

Once the Project footprint is finalized, low-level helicopter flights and on foot transects will complete the inventory of all archaeological resources. Each site will be evaluated in terms of its potential to be affected by the development and possibilities for avoidance. At each site where effects are considered likely, more detailed assessment will be conducted to determine site boundaries, content and scientific significance. Cultural significance will also be incorporated where possible. This information will be used to prepare a site-specific mitigation plan, which may comprise avoidance, protection or data recovery. These mitigation plans must be approved by the GN and then implemented prior to initiation of disturbance activities.

6.6.2 Traditional Activities and Knowledge

Traditional land and resource use continues to support the subsistence economy. Hunting, fishing and gathering plants and berries contribute healthy and nutritious food to the diet of Nunavummiut families. Trapping provides pelts for sale, personal use and crafts. The contribution of country foods to a Kitikmeot family's diet varies from 10% to 29%. Caribou, Arctic char, ringed seal, and musk ox, trout and whitefish are the most frequently consumed, depending on the season (Wolfden 2006).

Information on the extent to which Nunavummiut in the Kitikmeot engage in subsistence harvest are becoming dated. However, anecdotal evidence suggests that, while traditional land use may have declined since the early part of the past decade, a substantial proportion of the Kitikmeot population still harvest food. The Nunavut Wildlife Harvest Study noted that the percentage of active hunters is 21-22%, whereas the percentage of intensive hunters is 4% of the total hunters interviewed with most hunters being occasional harvesters.

The 2001 Aboriginal People's Survey (Rescan 2008) reported that approximately 50-60% of residents (aged 15 years and older) in Kugluktuk, Cambridge Bay and Gjoa Haven engaged in hunting activity in the 12 months prior to the surveys; 70- 76% of residents were involved in fishing. Gathering activities showed the greatest variation, from 15% of residents in Cambridge Bay to 63% in Kugluktuk.

The Conference Board of Canada (2001) noted the importance of traditional activities for the lifestyle and diet of many residents. Nearly a third (31%) of residents report eating caribou meat daily or almost daily, while only 16% report eating it rarely or never. Other country foods include fish, seal, ptarmigan and muskox. The West Kitikmeot Draft Land Use Plan (WKRLUP 2005) estimated that 1,000-1,500 kg of hunting products, including meat and fish, are harvested by each hunter every year, with an estimated replacement value of $10,000-15,000 per hunter annually.

6.6.3 Community Recreational Facilities and Programs

Municipalities are responsible for the provision of recreation facilities and programs within their respective communities. Depending on each community, recreation facilities and programming vary. Within the Kitikmeot, there are numerous existing and proposed parks and conservation areas (refer to section 5.2). Federal Parks and conservation areas include: the Tuktut Nogait National Park, the Queen Maud Gulf Migratory Bird Sanctuaries, Queen Maude Gulf/Lambert Channel Polynya. National historic sites include the Coppermine River (Kugluktuk), O'Reilly Island (Gjoa Haven) and Utkuhiksalik (Gjoa Haven).

Territorial Parks and conservation areas include: Ovayok Territorial Community Park (Cambridge Bay), Kugluk/Bloody Falls Territorial Community Park (Kugluktuk), Kugaaruk Park (Kugaaruk), Rasmussen Lowlands (Taloyoak), Wilberforce Falls (Bathurst Inlet), Hiukitak River (Umingmaktok). Territorial historic sites include the Northwest Passage Territorial Historic Park (Gjoa Haven), Wilmot Island, Perry Island and Reid Island, and Wall Bay.

6.7 Individual and Community Wellness

It is hypothesized that community well-being is enhanced when individuals, families and their communities experience few adverse effects and more positive effects on people's daily lives.

6.7.1 Individual and Family Wellness

There are many determinants of wellness for both individuals and families. However, three key indicators in Nunavut are the prevalence of alcohol and substance abuse, family violence and abuse, and teen pregnancy.

Alcohol and substance abuse is common across Nunavut. In the Kitikmeot, communities are considered non-restricted or open, restricted or "dry" with respect to the possession of alcohol Cambridge Bay and Talaoyak are open, Gjoa Haven and Kugaaruk are dry communities, and Kugluktuk residents have restricted access.

The number of people using controlled substances such as marijuana, hashish, crystal methamphetamine and cocaine appears to be growing. No statistics are available at this time regarding the extent to which people in the region use these drugs. Inhalant abuse, another serious issue in Inuit communities, is often considered an under recognized form of substance abuse. Individuals who have an addiction problem have limited access to treatment (Korhonen 2005).

Family violence and abuse can include many forms of mistreatment, neglect and abuse, both physical and mental, between family members, relatives or dependent relationships. This can involve physical violence, sexual abuse, rape, exploitation, neglect of children, and emotional and verbal abuse. Family violence is complex and there is no single cause, yet it can be linked to individual issues relating to power and culture loss and other external contributing factors such as poverty, poor housing conditions, unemployment, and alcohol abuse (Pauktuutit Inuit Women of Canada 2006).

It is estimated that there is a higher incidence of family violence and abuse in Nunavut as compared to the rest of Canada. Statistics Canada reported that Aboriginal peoples (First Nations, Métis and Inuit) were three times more likely to be victims of spousal violence than non-Aboriginal peoples. The extent

of family violence is not known, as there are many cases that go unreported and often remain hidden. Per capita rates of shelter use are much higher in the territories than in the provinces. There are seven shelters in all of Nunavut, of which two are located within the Kitikmeot.

In the recent past, Nunavut has been faced with a growing number of teenage pregnancies. In 2004, Nunavut had an estimated teenage pregnancy rate 18 times higher than the rest of Canada (Archibald 2004).

Overall, individuals and families living Kitikmeot communities face the same challenges as residents of other Nunavut communities in terms of alcohol and substance abuse, family violence and abuse, and teen pregnancy.

6.7.2 Community Wellness

There are many determinants of community wellness. In Nunavut, two key indicators of the state of community wellness are the prevalence of suicide and crime. Community wellness is also a function of people's sense of belonging and purpose that reflect the cohesiveness of a community and the individuals in the communities. It reflects the willingness of individuals to co-operate and work together. Indicators include sharing and volunteering or helping out.

Suicide is among the 10 leading causes of death in Canada. According to Health Canada, Inuit suicide rates are more than 11 times higher than the Canadian rate, and 83% of these involved people under 30 years of age (Inuit Tapiriit Kanatami). From just a few self-inflicted deaths throughout the 1960s and 1970s, an average of 28 Nunavummiut have died by suicide each year from 2000 to 2010 (The Canadian Press 2011). The suicide rate of Inuit women in Nunavut is lower than Inuit men but is far higher than that of women in the rest of Canada (Government of Nunavut 2010).

Rates of suicide attempts and suicidal ideation (thoughts of committing suicide) also appear to be high in Nunavut. In 2009 alone, the RCMP responded to 983 "occurrences where persons are reported to be threatening or attempting suicide" in Nunavut. Kitikmeot communities face the same challenges as other Nunavut communities with respect to suicide prevention.

In 2011, the GN released a 3-year Nunavut Suicide Prevention Action Plan that is geared towards provision of more mental health services and suicide intervention training (Nunatsiaq Online 2011).

Crime is also a broad indicator of community wellness. **Table 6.7-1** and **Table 6.7-2** provide crime data from 2002 to 2009 for the Kitikmeot region. These data indicate increased numbers of violations in all categories and increased numbers of violations in most Kitikmeot communities.

Table 6.7-1 Reported Crime Data in the Kitikmeot Region, 2002-2009

Category	2002	2003	2004	2005	2006	2007	2008	2009
Total Violations	1,899	2,458	2,505	2,208	2,591	2,315	2,338	2,565
Crime Including Traffic	1,860	2,417	2,450	2,157	2,542	2,265	2,270	2,490
Police Reported Criminal Code Violations	358	451	455	395	455	399	399	434
Police Reported Federal statues Violations	39	41	55	51	49	50	68	75
Police-reported Violent Crime	598	777	763	671	631	548	647	705

Police reported non-violent crime	171	203	213	175	217	187	178	214
Police reported criminal code traffic violations	46	81	76	67	96	99	73	70

Sources: Nunavut Bureau of Statistics (2011a)

Table 6.7-2 Reported Actual Violations for Kitikmeot Region and Communities, 2002-2009

	2002	2003	2004	2005	2006	2007	2008	2009
Kitikmeot region	1,899	2,458	2,505	2,208	2,591	2,315	2,338	2,565
Cambridge Bay[2]	752	934	841	883	1,238	1,150	1,259	1,239
Gjoa Haven	173	261	216	240	143	230	295	482
Kugaaruk[7]	73	140	146	50	47	74	62	38
Kugluktuk	730	953	1,058	695	921	731	533	629
Taloyoak	171	170	244	340	242	130	189	177

Source: Nunavut Bureau of Statistics (2011a)

Sharing involves the recognition of relationships in a family, between families and in the larger community. Sharing of harvests provides for strong social and cultural connections. Sharing of food has continued despite involvement in the wage economy. In fact, the wage economy makes it possible to participate in harvests and hunts (e.g., purchase of guns, bullets, snow machines). Without the wage economy, subsistence harvests would diminish and social and cultural connections might be altered (Wenzel 2009, 1989, 1981; Lonner 1980, Fienup-Riordan 1986). Based on a 2007 survey of 9,000 individuals from Nunavut's 10 largest communities (66% of the population over 15), volunteers contributed an average of 186 hours per year to their communities. The percentage of the population volunteering was 43% in 2007 - below the national average of 46% (Statistics Canada 2009).

The vitality of a community's culture and people's use of traditional languages are also important indicators of community wellness. The Nunavut government lists four official languages. These are: Inuktitut, Inuinnaqtun, English and French for the Territory. Up until the 19th century and early 20th century, the Inuktitut language was an oral language with a variety of dialects, of which one is Inuinnaqtun. Today, Inuktitut and Inuinnaqtun are also written, using syllabics and Roman orthography respectively. English has become the dominant language in Nunavut.

The use pattern of Inuit languages in the Kitikmeot is consistent with the overall pattern for Inuktitut speakers across Nunavut. The proportion of Kitikmeot residents that spoke Inuktitut or Inuinnaqtun first and continue to speak it preferentially has been dropping steadily since 1996. This is likely a reflection of the aging population and the passing of elders.

The communities of Kugluktuk and Cambridge Bay may be the exception. Although the Kitikmeot population is losing Inuktitut and Inuinnaqtun mother tongue speakers, there is some evidence that these languages are being learned as a second language. Inuktitut language training is available to children in pre-school programs from Kindergarten to Grade 5. From Grade 6 to 12, English is the predominant language of instruction and the Inuktitut language is a subject.

In Cambridge Bay and Kugluktuk, the Kindergarten to Grade 12 curriculum is all in English. In communities where Inuinnaqtun is spoken, English is the only language of educational instruction.

The GN has made the revitalization of the Inuit language a priority. As part of their revitalization strategy, the GN passed the *Inuit Language Protection Act* in 2008. The objective of the legislation is to increase the population of Inuit who can speak and read their language fluently. It seeks to ensure that Inuit Language remains at the centre of education, work and daily life throughout the territory. With the passage of this Act the GN has also committed to provide services and communications to the public that are effective and culturally appropriate in the official language of their choice.

6.7.3 Personal Security

Two key issues that relate to personal security are people's financial security and their access to a sufficient amount of nutritious food (i.e., food security).

Financial security is about achieving material well-being and having adequate income to meet basic needs such as housing, food, and clothing, and being able to take advantage of opportunities and lead a rewarding life. The GDP per capita is often used as a measure of the standard of living. An increase in GDP is associated with greater material well-being, and thus with a higher standard of living.

In 2010, the national nominal GDP per capita was $47,606, while that in Nunavut was slightly higher at $53,452. Nevertheless, the high cost of living in Nunavut reduces the purchasing power of people's earned income. Nunavut's median income is low when compared to the national average, which indicates that a larger percentage of the population live close to or below the poverty line.

Inuit in Nunavut rely on both traditional and store bought food to meet their subsistence needs. Food security remains a serious issue for many individuals and families in Nunavut particularly among those on social assistance. A 2006 study reported that participants in six Nunavut communities indicated that many people had difficulty obtaining enough food every month (Chan et al. 2006).

In 2011, the federal government introduced the Nutrition North Canada (NNC) program, which seeks to improve access to perishable healthy food in isolated northern communities. This program is based on a market-driven model, whereby the food subsidy is transferred to retailers and suppliers that apply and are selected to register with the program (Nutrition North Canada 2012).

The GN's Department of Health and Social Services established the "Developing Healthy Communities" strategy for Nunavut 2008-2013. The GN's goals are to increase the number of children eating country foods; to improve food security for all families through increased access to nutritious and acceptable food; and to increase knowledge and skills regarding healthy foods, menu options and budgeting (Government of Nunavut 2012b).