

ENVIRONMENTAL IMPACT STATEMENT  
for the  
MACKENZIE GAS PROJECT

Volume 4: Part B

**Socio-Economic Baseline**

**Hay River  
Community Report**

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## **1 INTRODUCTION**

### **1.1 Background and Purpose**

The purpose of this report on Hay River is to present the response to the Joint Review Panel (JRP) request for a community-specific organization of the environmental impact statement (EIS) socio-economic baseline data. For consistency and ease of use, the document is similar in structure to, and has been assembled largely on the basis of, the regional-level material contained in the existing Volume 4 of the EIS. This report (hereinafter referred to as Volume 4B) presents a community focus on a stand-alone basis with the intent of meeting the needs of, and facilitating review by, each community without substantial reference to other EIS documentation. A corresponding document, Volume 6C, has been prepared to present the effects assessment on a community-specific basis.

### **1.2 How to Use this Report**

Typical socio-economic material is presented in this report as follows:

- Section 2 – People and the Economy
- Section 3 – Infrastructure and Community Services
- Section 4 – Individual, Family and Community Wellness
- Section 5 – Traditional Culture

This volume also contains the following discussions:

- Section 6 – Nontraditional Land and Resource Use
- Section 7 – Heritage Resources

In order to help the reader locate content which may be of particular interest and to allow linkages for a given topic between the baseline information in Volume 4B and the effects assessment in Volume 6C, as well as to the existing Volumes 4 and 6 of the EIS, the following concordance table provides cross-references for the topics in each volume (see Table 1-1). Note that although the titles of sections match those found in the existing EIS Volumes 4 and 6, the numbering has changed in Volume 6C to accommodate new sections.

Table 1-1: Environmental Impact Statement Topic Areas

Topic	EIS, Volume 4	Volume 4B	EIS, Volumes 6A and 6B	Volume 6C
Introduction	1.0	1.0	1.0	1.0
Geographic Area of Interest	–	–	–	2.0
Public Participation	–	–	–	3.0
Project Expenditures	–	–	2.0	–
National Economic Effects	–	–	3.2	–
Population Composition and Dynamics (Demography)	2.2.1, 2.3.1, 2.4.1, 2.5.1, 2.6.1, 2.7.1, 2.8.1, 2.9.1	2.2	3.3	4.2
Economic Activity	2.2.2, 2.3.2, 2.4.2, 2.5.2, 2.6.2, 2.7.2, 2.8.2, 2.9.2	2.3	3.1	4.1
Labour Force	2.2.3, 2.3.3, 2.4.3, 2.5.3, 2.6.3, 2.7.3, 2.8.3, 2.9.3	2.4		
Income Sources and Amounts	2.2.4, 2.3.4, 2.4.4, 2.5.4, 2.6.4, 2.7.4, 2.8.4, 2.9.4	2.5		
Cost of Living	2.2.5, 2.3.5, 2.4.5, 2.5.5, 2.6.5, 2.7.5, 2.8.5, 2.9.5	2.6		
Transportation Infrastructure	3.2.1, 3.3.1, 3.4.1, 3.5.1, 3.6.1, 3.7.1, 3.8.1, 3.9.1	3.3	4.1	5.2
Utilities, Energy and Communications	3.2.2, 3.3.2, 3.4.2, 3.5.2, 3.6.2, 3.7.2, 3.8.2, 3.9.2	3.4	4.2	5.3
Housing	3.2.3, 3.3.3, 3.4.3, 3.5.3, 3.6.3, 3.7.3, 3.8.3, 3.9.3	3.5	4.3	5.4
Recreation	3.2.3, 3.3.3, 3.4.3, 3.5.3, 3.6.3, 3.7.3, 3.8.3, 3.9.3		4.4	5.5
Governance	3.2.4, 3.3.4, 3.4.4, 3.5.4, 3.6.4, 3.7.4, 3.8.4, 3.9.4	3.2	4.5	5.1
Health Conditions	4.2.1, 4.3.1, 4.4.1, 4.5.1, 4.6.1, 4.7.1, 4.8.1, 4.9.1	4.2	5.3	6.2
Health Care Facilities and Services	4.2.2, 4.3.2, 4.4.2, 4.5.2, 4.6.2, 4.7.2, 4.8.2, 4.9.2	4.3	5.2	6.1

Table 1-1: Environmental Impact Statement Topic Areas (cont'd)

Topic	EIS, Volume 4	Volume 4B	EIS, Volumes 6A and 6B	Volume 6C
Family and Community Conditions (Community Well-Being)	4.2.3, 4.3.3, 4.4.3, 4.5.3, 4.6.3, 4.7.3, 4.8.3, 4.9.3	4.4		
Human Health Risks	–	–	5.4	6.3
Accidents and Malfunctions	–	–	–	6.4
Social and Protection Facilities and Services	4.2.4, 4.3.4, 4.4.4, 4.5.4, 4.6.4, 4.7.4, 4.8.4, 4.9.4	4.5	5.5	6.5
Education and Training	4.2.5, 4.3.5, 4.4.5, 4.5.5, 4.6.5, 4.7.5, 4.8.5, 4.9.5	4.6	5.6	6.6
Traditional Harvesting	5.2.1, 5.3.1, 5.4.1, 5.5.1, 5.6.1, 5.7.1, 5.8.1, 5.9.1	5.2	6.2	7.1
Trapping	5.2.2, 5.3.2, 5.4.2, 5.5.2, 5.6.2, 5.7.2, 5.8.2, 5.9.2	5.3		
Aboriginal Language	5.2.3, 5.3.3, 5.4.3, 5.5.3, 5.6.3, 5.7.3, 5.8.3, 5.9.3	5.4	6.3	7.2
Nontraditional Land and Resource Use	6.0	6.0	7.0	8.0
Heritage Resources	7.0	7.0	8.0	9.0
Cumulative Effects	–	–	9.0	–
Monitoring and Follow-Up	–	–	10.0	10.0
References, Glossary	end	end	end	end
NOTE: – = not included, or not discussed				

### 1.3 Study Area

The socio-economic study area includes all of the communities in the Northwest Territories in which the direct or indirect effects of gas production and pipeline construction may affect permanent residents.

The socio-economic study area also includes northwestern Alberta, where, in an ancillary project, NOVA Gas Transmission Ltd. (NGTL) is proposing to construct the Northwest Mainline (Dickins Lake and Vardie River Sections) and the NGTL interconnect facility.

Figure 1-1 illustrates the study area communities.

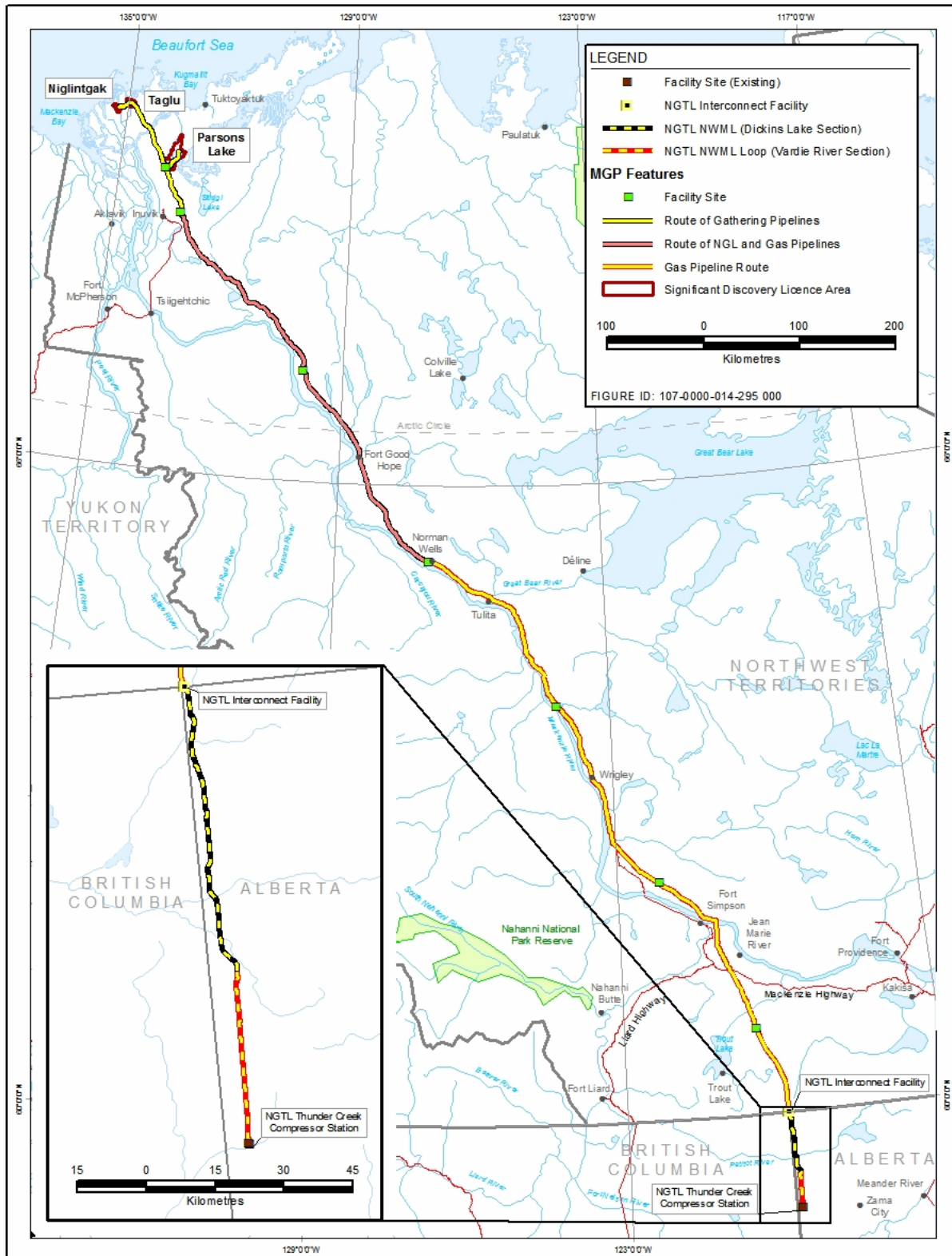


Figure 1-1: Study Area Communities

The nontraditional land and resource use, and heritage resources portions of the socio-economic impact assessment (SEIA) identify specific local study areas (LSAs) and regional study areas (RSAs) in relation to project component locations and activities.

Hay River is one of three communities described in the EIS as an industrial and commercial centre (ICC). The other ICCs in the study area are Yellowknife and Enterprise.

#### **1.4 Summary of the Socio-Economic Baseline for Hay River**

Hay River is the second largest community and a commercial and distribution centre of the Northwest Territories. Although 55% of the population is non-Aboriginal, almost 1,600 of the residents are Aboriginal people. The town of Hay River, located where the Hay River flows out of Great Slave Lake, and about 38 km from the Mackenzie Highway, is thus the marine transportation hub of the Northwest Territories. Hay River is a town, governed by a Mayor and Council, with municipal services supported in part through tax revenues.

Because of its role as the transportation, commercial and service centre for many communities both north and south of Great Slave Lake, Hay River has the second highest labour force participation and employment rates, and the second lowest unemployment rate in the territory. It also has the second highest average earned income of any Northwest Territories community. The cost of living index is about 25% higher than Edmonton.

Hay River is generally comparable, in terms of utilities, quality of housing and recreation facilities, with most Canadian towns of similar size.

The Hay River Health and Social Services Authority is located in Hay River. Because physician services are readily accessible, the rates of physician treatments of respiratory diseases, infectious and parasitic diseases, and accidental injuries are all higher than the territory-wide rates. However, the sexually transmitted infection and mental disorders rates in Hay River are lower than the territorial rate.

Hay River has a liquor store and alcohol is readily available. Alcohol-related offence rates are higher in Hay River than the Northwest Territories total rate, but indicators for alcohol abuse, spousal violence and children taken into care are lower than the territorial rates.

The Hay River Royal Canadian Mounted Police (RCMP) detachment is responsible for policing the surrounding small communities of Hay River Reserve, West Point Reserve and Enterprise, as well as Hay River. They also patrol the highways to the north, south and east of the town.

High school and post-secondary attainment levels are well above those for the Northwest Territories, in part because of the employment available in Hay River.

Because of the number of non-Aboriginal people, and the extent of commercial and industrial employment in Hay River, participation in hunting and fishing, and consumption of country foods is lower than in the territory as a whole. As communication in Hay River is generally in English, fluency in an Aboriginal language is also at a lower level than the Northwest Territories total.

As Hay River is remote from project facilities and activities, although close to project logistic activities, the details of the local prehistory, history and culture context were not specifically outlined in the EIS.

## 1.5 Approach

This SEIA is designed to focus on how the project may affect the wellness of a community. Wellness is often the most highly valued aspect of community life, and depends on the well-being of individuals, families and the community as a whole. Community wellness may be significantly enhanced by project benefits, and be vulnerable to adverse effects.

The effects assessment is focused on addressing community concerns, with the aim of designing and implementing the project using procedures that optimize beneficial effects and reduce effects the communities believe to be undesirable.

A community-driven approach requires:

- knowledge about the characteristics of the communities that may be affected
- understanding of the interests and concerns of these communities

Knowledge of community characteristics has been obtained by collecting information from residents who are informed about a particular circumstance. Information on interests and concerns was gained in the meetings and community consultations held with residents of Hay River and the other industrial and commercial centres (ICCs).

### 1.5.1 Why the Baseline is Important

The baseline conditions provide the context for assessing the potential effects of the project. The data presented in this report allows an assessment of the capacity of the people, institutions, corporations and governments to respond to the project. Communities experience socio-economic effects in accordance with two primary interactions:

- physical, social or economic interaction between project component activities or personnel, and community residents and their economic, social or cultural resources and pursuits

- supplying workers or business services to the project, which generates income for firms and individuals. The spending or investment of this income will have both positive and negative effects.

## **1.6 Information Needed to Support the Effects Assessment**

### **1.6.1 Background**

The initial approach to collecting baseline information resulted in more than 440 tables of social and economic data with possible relevance to project effects.

To create a comprehensive yet readable document, the process of synthesizing and analyzing this tabular data to describe the baseline conditions succinctly, and eventually predict and monitor project effects included:

- presenting selected tables, some of which contain several indicators which are considered necessary to understand a particularly sensitive issue, such as:
  - alcohol abuse, which is captured by data on hospitalizations for alcohol-related illnesses, alcohol-offence data from the police and self reports of frequency of heavy drinking
  - traditional resource harvesting, which requires several indicators to understand its possibly changing significance
- providing some data-based conclusions without supporting tables

In this document, tabular information for Hay River is bolded to make it stand out from the other, usually regional-based, presentations.

### **1.6.2 Specific Sources**

#### **1.6.2.1 People and the Economy**

Information in Section 2, People and the Economy includes:

- labour force activity:
  - participation
  - employment and unemployment rates
  - jobs currently held
- labour force education and training achievements

Also relevant is information on the sizes of various sectors of the economy, as they are possible sources for the goods and services that might be needed.

### 1.6.2.2 Infrastructure and Community Services

Section 3, Infrastructure and Community Services contains detailed, community-specific information on infrastructure facilities, including descriptions of:

- water supply
- disposal of liquid and solid waste
- power supply and fuels used
- air, land, rail and water transport arrangements and frequencies
- communication facilities and services
- housing conditions and recreation facilities

This section also includes a discussion of governance.

### 1.6.2.3 Individual, Family and Community Wellness

Section 4, Individual, Family and Community Wellness describes individual, family and community wellness. Much of the information relates to wellness aspects and influence, including:

- physical, mental and emotional health
- family relationships
- community behaviours

Most of the data on wellness is negative, e.g., rates of illness, family violence and crimes, rather than positive, i.e., healthfulness, family solidarity or good citizenship, because official data is not often collected or reported publicly on positive indicators.

This section describes the following influences that affect wellness:

- individual, e.g., substance abuse, and the problems it causes
- institutional, e.g., levels of problem conditions reported by protective and helping agencies, health and social service professionals, and police

Section 4 also provides information on agencies and programs, and relevant statistics related to those influences.

### 1.6.2.4 Traditional Culture

Section 5, Traditional Culture provides information on traditional culture, which includes the knowledge, skills, disciplines, beliefs and values of the Aboriginal people. Traditional culture is important to them because it is:

- their principal source of pride, worth, distinctiveness and identity

- the basis for harvesting the benefits and meeting the challenges of survival on the land they respect and love
- their primary defence against the prejudice and discrimination sometimes experienced from Euro-Canadians

Indicator data for beliefs and values is currently unavailable for Hay River. Some data is now being collected through ongoing traditional knowledge studies.

Three cultural indicators, based on people's activities, are currently available for the ICCs, including Hay River:

- involvement in traditional harvesting
- the amount of country food consumed
- the ability to speak a traditional language

Traditional harvesting has an important physical and psychological influence on wellness in Aboriginal communities. Wild fish, game, plants and berries are nutritionally superior to processed food and are sources of natural medicine (Usher 1976). Furthermore, country foods are shared within a community, thereby enhancing community solidarity. Preserving traditional language has an important psychological influence on wellness by helping to establish feelings of identity and purpose.

#### **1.6.2.5 Nontraditional Land and Resource Use**

The community of Hay River is located approximately 240 km from the pipeline route. Because it is outside of the 30-km regional study area, no baseline information specific to the Hay River area was collected.

#### **1.6.2.6 Heritage Resources**

Baseline data was not included in the EIS for Hay River as it is located in an area that will not have previously undeveloped lands that will be directly affected by the project.

#### **1.6.3 Information Collection and Verification**

Collecting data for this volume involved:

- collecting quantitative and qualitative data
- verifying the data during community consultations

Quantitative data was obtained from:

- 1996 and 2001 censuses of Canada

- special surveys conducted by the Government of Canada and Government of the Northwest Territories (GNWT)
- GNWT Health and Social Services (HSS)
- RCMP administrative records

Relevant information was also obtained from literature reviews. In addition, government agencies were helpful in providing several special tabulations.

Government agencies and nongovernmental organizations (NGOs) provided details on staffing, resources, policies, training and other programs.

Qualitative data was obtained during interviews with community and territorial officials and other knowledgeable people during visits to all the study area communities that may be affected by the project. Many of these visits were to:

- collect baseline information
- review it with local knowledgeable people
- seek corrections, qualifications and valuable additional information

In the broader context of public participation in the EIS, two rounds of community meetings and regional workshops were held to:

- share project information
- gather community feedback on the project description
- identify and verify key issues and concerns
- identify potential effects and suitable mitigation measures

The meetings provided valuable qualitative information, based on local experience and insights.

To protect the identity of individuals, information obtained during interviews has usually been attributed to an organization, rather than citing an individual's name. In other cases, names and dates have been cited in the text and the information about the personal communication provided in the list of references.

For further information on the public participation process, see Volume 1, Section 4, Public Participation of the EIS.

## 1.7 Data Limitations

To the extent possible, information contained in the EIS has been supplemented by data and information available at the community level. For Volume 4B, in order that regional and community presentations are internally consistent and comparable, only limited new data is presented. However, the report may include

data previously collected, but not presented in Volume 4 of the EIS. Many of the communities in the Northwest Territories have relatively small populations, which means that data collected by Statistics Canada and other agencies, at the community level, is either suppressed or has limitations for reasons of maintaining confidentiality. This means that in several instances information and analysis is constrained to a regional level discussion.

### 1.7.1 Context for Understanding the Data

In creating descriptions of baseline conditions, the analysts assessed and synthesized the qualitative and quantitative information collected. These descriptions are based on verified published data and reflect documented opinions of regional and local public service delivery personnel. However, the evaluation of socio-economic conditions is subjective. Both groups and individuals, whether trained social scientists or not, have valid but varied opinions on the importance of individual issues and what these might mean with regard to community wellness.

The socio-economic baseline conditions set the stage for predicting the specific aspects of a community that may change because of project influences, either those that may benefit from project effects, e.g., employment and income, or those that may be adversely affected, e.g., health and wellness conditions.

### 1.7.2 Data and Indicators

Accurate descriptions of existing baseline conditions, and the eventual monitoring of possible project effects, depend on quantitative and qualitative indicators, which are vulnerable to several types of distortion:

- quantitative, statistical data include administrative statistics, e.g., health care treatments, police, child welfare and suicide, and data from the census and special surveys. Administrative data may vary because of:
  - changes in policies, e.g., health care, police, child welfare policies
  - how individual practitioners interpret or implement policy
  - the care with which data is recorded
- census and other survey data is flawed by under-enumeration. Particular difficulties occur in census taking in the Northwest Territories because many people leave communities to hunt, fish or visit. Attempts to reach them by telephone and repeated visits to small, outlying communities can fail. The GNWT Bureau of Statistics conducts a special survey in every census year to estimate census under-enumeration.
- qualitative data refers essentially to generalizations about past and current conditions, and expected trends obtained from knowledgeable community residents. These include service delivery personnel, i.e., health, police,

education and social services, personnel, and residents of local communities. Each group may not have previously shared their information with the other groups.

### **1.7.3 Limitations of Low-Frequency Data**

Statistics Canada randomly rounds frequency data to zero or five. When such rounded and imprecise frequencies are converted to percentages, the totals of these percentages sometimes do not sum to 100%. When the rounded low-frequency data for very small populations is converted to percentages, the total is commonly higher or lower than 100%, depending on the distortions caused by the rounding.

For most of the small communities, creating community-specific socio-economic indicators based on statistical tabulations might not produce reliable results. In these situations, the qualitative data collected in interviews with knowledgeable individuals is often critical in clarifying the significance of available data and making valid interpretations. This situation does not apply to Hay River, where the population is large enough to provide a reasonable statistical base.

## 2 PEOPLE AND THE ECONOMY

### 2.1 Introduction

The information presented describes the people who live in Hay River together with similar information for the other ICCs to provide context. The information presented describes:

- population composition and dynamics
- economic activity
- labour force
- income sources and amounts
- cost of living

Generally, in comparison with the rest of Canada, the territorial population is relatively young. Migration rates are high primarily because about half the population is non-Aboriginal. Most of these people spend some years in the territories, and then return home to the southern provinces.

Compared to other areas of Canada, the population is small and geographically scattered. The economy has traditional and monetary components, with the monetary component increasingly dependent on extracting mineral and hydrocarbon-related resources. See Section 5, Traditional Culture for information on participation in the dual economy.

### 2.2 Population Composition and Dynamics

Table 2-1 shows that the 2003 estimated population of the ICCs was 22,368. Census counts for 1991 and 2001 showed a modest increase for Hay River, at 8%.

**Table 2-1: Census Counts and Population Estimates for the Industrial and Commercial Centres in the Northwest Territories**

Location	Census Population Numbers				Growth 1991–2001 (%)	2003 Estimated Population (No.)
	1986	1991	1996	2001		
NWT	33,830	36,405	35,370	37,360	3	41,872
ICCs	14,815	18,441	20,962	20,112	9	22,368
Yellowknife	11,753	15,179	17,275	16,541	9	18,673
<b>Hay River</b>	<b>3,006</b>	<b>3,253</b>	<b>3,611</b>	<b>3,510</b>	<b>8</b>	<b>3,620</b>
Enterprise	56	49	86	61	33	75
NOTE: Estimates are calculated by the GNWT Bureau of Statistics by allocating the demographic components of growth, down to a community level, using information from a variety of sources						
SOURCE: GNWT Bureau of Statistics (2003d, 2004)						

The population characteristics of the other Northwest Territories regions reviewed in this section are typical of a mostly Aboriginal northern population with a substantial mixture of non-Aboriginal people. Hay River, Yellowknife and Enterprise are distinctive because Aboriginal people are in the minority (see Table 2-2).

**Table 2-2: Ethnicity for the Industrial and Commercial Centres in the Northwest Territories (2001 Census Count)**

Location	Total Population (No.)	Non-Aboriginal (%)	Aboriginal (%)	Aboriginal Components (Total = 100%)				
				Inuit (%)	Dene (%)	Métis (%)	Multiple (%)	Other Aboriginal (%)
NWT	37,360	50	50	21	57	19	1	2
Yellowknife	16,450	78	22	18	44	35	2	1
<b>Hay River</b>	<b>3,455</b>	<b>55</b>	<b>45</b>	<b>7</b>	<b>42</b>	<b>51</b>	<b>2</b>	<b>1</b>
Enterprise <sup>1</sup>	65	62	38	33	33	33	0	0

NOTE:  
1 Frequencies and percentages are distorted by random rounding (see Section 1.7.3, Limitations of Low-Frequency Data)

SOURCES: GNWT Bureau of Statistics (2003e), Town of Enterprise officials (2002 and 2003, personal communication)

The highest Aboriginal percentage in an ICC was reported in Hay River, where Dene and Métis formed the two largest components of the Aboriginal population. Hay River resembles a frontier community by having more men than women, and a high migration rate.

According to statistics on five-year mobility status for 1996, 21% of residents in Hay River were interprovincial or international migrants in that year. Large proportions, i.e. 58%, of people from Hay River moved to a different residence within the Northwest Territories. Hay River had a lower percentage of nonmovers when compared to other Northwest Territories communities (GNWT Bureau of Statistics 2003a).

### 2.3 Economic Activity

Table 2-3 shows the distribution of labour force members by occupational grouping for the Northwest Territories ICCs. The few small Statistics Canada changes in occupational categories in 1991 and 2001 make little, if any, difference, given the level of aggregation in the table.

**Table 2-3: Labour Force by Standard Occupational Categories for the Industrial and Commercial Centres in the Northwest Territories**

Occupation	Gender	Northwest Territories		ICCs		Yellowknife		Hay River		Enterprise	
		1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Labour force, 15+ years	Total (No.)	20,070	20,785	11,665	12,540	9,730	10,470	<b>1,910</b>	<b>2,030</b>	25	40
	Male (No.)	11,225	11,115	6,340	6,575	5,255	5,475	<b>1,070</b>	<b>1,075</b>	15	25
	Female (No.)	8,850	9,670	5,326	5,965	4,476	4,995	<b>840</b>	<b>955</b>	10	15
All occupations	Total (No.)	19,675	20,425	11,590	12,425	9,675	10,380	<b>1,890</b>	<b>2,000</b>	25	45
	Male (No.)	11,030	10,935	6,310	6,520	5,235	5,435	<b>1,060</b>	<b>1,060</b>	15	25
	Female (No.)	8,645	9,490	5,280	5,900	4,440	4,945	<b>830</b>	<b>935</b>	10	20
Management, business, finance and administration occupations	Total (%)	18	21	20	23	21	24	<b>16</b>	<b>20</b>	0	22
	Male (%)	19	19	22	21	23	22	<b>19</b>	<b>17</b>	0	0
	Female (%)	16	24	18	26	19	27	<b>11</b>	<b>23</b>	0	50
Clerical occupations	Total (%)	17	9	19	11	20	11	<b>19</b>	<b>11</b>	40	0
	Male (%)	6	3	6	4	6	4	<b>6</b>	<b>5</b>	0	0
	Female (%)	32	16	35	18	35	18	<b>35</b>	<b>19</b>	100	0
Natural and applied sciences, and related occupations	Total (%)	4	7	5	8	5	9	<b>3</b>	<b>5</b>	0	0
	Male (%)	6	11	8	13	8	14	<b>4</b>	<b>8</b>	0	0
	Female (%)	1	3	2	4	2	4	<b>1</b>	<b>1</b>	0	0
Health occupations	Total (%)	3	4	4	4	4	4	<b>4</b>	<b>4</b>	0	0
	Male (%)	1	1	1	2	1	2	<b>1</b>	<b>1</b>	0	0
	Female (%)	6	7	7	7	7	7	<b>7</b>	<b>7</b>	0	0
Social services, education, government service and religious occupations	Total (%)	9	12	8	10	8	11	<b>7</b>	<b>9</b>	0	22
	Male (%)	6	7	5	7	5	7	<b>4</b>	<b>5</b>	0	0
	Female (%)	14	17	11	14	12	14	<b>11</b>	<b>13</b>	0	0
Art, culture, recreation and sport occupations	Total (%)	2	2	2	3	2	3	<b>1</b>	<b>1</b>	0	0
	Male (%)	2	2	1	2	2	2	<b>0</b>	<b>1</b>	0	0
	Female (%)	2	3	3	3	3	4	<b>1</b>	<b>1</b>	0	0
Sales and service occupations	Total (%)	18	22	17	22	17	21	<b>20</b>	<b>25</b>	0	22
	Male (%)	15	18	15	19	15	20	<b>15</b>	<b>19</b>	0	0
	Female (%)	23	27	20	25	19	24	<b>26</b>	<b>33</b>	0	50
Trades, transport and equipment operators, and related occupations	Total (%)	16	17	14	14	13	13	<b>18</b>	<b>20</b>	40	22
	Male (%)	27	30	23	26	22	24	<b>29</b>	<b>36</b>	100	60
	Female (%)	2	2	2	1	2	1	<b>3</b>	<b>2</b>	0	0
Occupations unique to the primary industry	Total (%)	5	4	4	3	4	3	<b>3</b>	<b>4</b>	0	0
	Male (%)	8	8	8	6	8	5	<b>6</b>	<b>6</b>	0	40
	Female (%)	1	1	0	1	0	1	<b>0</b>	<b>1</b>	0	0
Occupations unique to the processing, manufacturing and utilities industries	Total (%)	4	1	4	1	4	1	<b>6</b>	<b>2</b>	0	0
	Male (%)	7	2	7	1	7	1	<b>9</b>	<b>2</b>	0	0
	Female (%)	1	0	1	1	1	0	<b>2</b>	<b>2</b>	0	0

**Table 2-3: Labour Force by Standard Occupational Categories for the Industrial and Commercial Centres in the Northwest Territories (cont'd)**

Occupation	Gender	Northwest Territories		ICCs		Yellowknife		Hay River		Enterprise	
		1991	2001	1991	2001	1991	2001	1991	2001	1991	2001
Occupations not classified elsewhere	Total (%)	3	0	0	0	1	0	3	0	0	0
	Male (%)	4	0	0	0	2	0	5	0	0	0
	Female (%)	1	0	1	0	0	0	1	0	0	0
NOTES: Number and percentage of population, aged 15 years and older Because census data is independently randomly rounded (all numbers end in a 5 or 0), totals may not add to 100, especially in small communities (see Section 1.7.3, Limitations of Low-Frequency Data)											
SOURCE: Statistics Canada (1991, 2001), prepared by GNWT Bureau of Statistics											

The occupational groupings of these communities reflect the transportation significance of Hay River. Thus, the most frequent occupational categories in Hay River were sales and service, trades and transport, and management and business.

Between 1991 and 2001, in Hay River the numbers in management and business, primary industry, sales and service, sciences, social services, and trades and transport occupations increased. The numbers in clerical, and processing and manufacturing occupations declined during the decade.

Between 1991 and 2001, the representation of males in sales and service, sciences, and trades and transport occupations increased, although there were reductions in processing and manufacturing, and management and business occupations. Among females during this decade, there were large increases in management and business, and sales and service occupations, and a smaller increase in government services occupations. The employment of women in clerical occupations declined sharply during the decade.

## 2.4 Labour Force

Table 2-4 shows labour force activity rates in Hay River for male and female participation, employment and unemployment rates, and the changes in these rates between 1991 and 2001. In comparison with the rates for the Aboriginal communities, the participation and employment rates for both men and women in Hay River are relatively high, and the unemployment rates are relatively low.

The participation rate for males during this decade in Hay River fell slightly, by 5%, while the rate for females increased by 2%. Between 1991 and 2001, the employment rates for both men and women decreased, by 4% for men and by just 1% for women. Unemployment rates fell by 1% for men, and increased by 3% for women during the decade.

Table 2-4: Participation, Employment and Unemployment for the Industrial and Commercial Centres in the Northwest Territories

Location	Gender	1991				2001				Difference (2001 minus 1991)		
		Pop. (No.)	Part. (%)	Empl. (%)	Unempl. (%)	Pop. (No.)	Part. (%)	Empl. (%)	Unempl. (%)	Part. (%)	Empl. (%)	Unempl. (%)
NWT	Male	13,540	83	73	12	13,810	80	72	10	-3	-2	-2
	Female	12,145	73	65	10	13,130	74	67	8	1	2	-2
NWT Aboriginal communities <sup>1</sup>	Male	2,425	73	54	27	2,470	66	52	23	-7	-2	-4
	Female	2,010	59	46	22	2,225	58	48	17	-1	2	-5
ICCs total	Male	7,010	90	86	5	7,515	88	82	6	-2	-4	1
	Female	6,475	82	77	7	7,375	81	76	6	-1	-1	-1
Yellowknife	Male	5,780	91	87	4	6,195	88	84	5	-3	-3	1
	Female	5,360	84	78	6	6,125	82	78	5	-2	0	-1
<b>Hay River</b>	<b>Male</b>	<b>1,210</b>	<b>88</b>	<b>79</b>	<b>10</b>	<b>1,295</b>	<b>83</b>	<b>75</b>	<b>9</b>	<b>-5</b>	<b>-4</b>	<b>-1</b>
	<b>Female</b>	<b>1,100</b>	<b>76</b>	<b>70</b>	<b>9</b>	<b>1,225</b>	<b>78</b>	<b>69</b>	<b>12</b>	<b>2</b>	<b>-1</b>	<b>3</b>
Enterprise	Male	20	75	50	0	25	100	80	0	25	30	0
	Female	15	67	67	0	25	80	80	0	13	13	0

NOTES:

1 All study area communities in the Northwest Territories except Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and Enterprise

Pop. = population aged 15 years and older

Part. = participation rate is the percentage of population, aged 15 years and older in the labour force

Empl. = employment rate is the percentage of population, aged 15 years and older employed during the week before the survey

Unempl. = unemployment rate is the percentage of the labour force that was unemployed during the week before the survey

NWT = Northwest Territories

Statistics for very small communities are uncertain and should be considered with caution

Because census data is independently randomly rounded (all numbers end in a 5 or 0), totals may not add to 100, especially in small communities (see Section 1.7.3, Limitations of Low-Frequency Data)

SOURCE: Statistics Canada (1991, 2001)

Table 2-5 shows the potential labour supply as 282 people in Hay River in 1999 of whom 55% said they needed training. The potential labour supply is composed of people of working age who are unemployed and those not participating in the labour force who do want a job, less those who, because of disability, age, illiteracy, or lack of education, skills or training could be considered unemployable, according to the GNWT Bureau of Statistics definition.

**Table 2-5: Profile of the Working-Age Population for the Industrial and Commercial Centres in the Northwest Territories (1999)**

Profile Category	NWT Aboriginal Communities <sup>1</sup>	Yellowknife	Hay River	Enterprise
Population 15+ (No.)	5,821	13,139	<b>2,665</b>	–
Potential labour supply (No.)	1,797	1,405	<b>282</b>	–
Potential labour supply <sup>2</sup> (%)	31	11	<b>11</b>	–
Need training <sup>3</sup> (%)	53	45	<b>55</b>	–
Would do rotational work <sup>3</sup> (%)	73	44	<b>62</b>	–
Male <sup>3</sup> (%)	60	46	<b>53</b>	–
Aboriginal <sup>3</sup> (%)	94	39	<b>65</b>	–
Less than high school education <sup>3</sup> (%)	68	32	<b>54</b>	–
NOTES:				
– = data not available or held confidential to protect individual identities				
1 All study area communities in the Northwest Territories, except Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and Enterprise				
2 Percentage of population, aged 15 years and older				
3 Percentage of potential labour force				
SOURCES: GNWT Bureau of Statistics (1999), GNWT (1999)				

## 2.5 Income Sources and Amounts

In 2000, the 12 tax-paying companies in the DCR together paid a total of approximately \$42,000 in corporate income taxes (see Table 2-6).

**Table 2-6: Corporate Tax Status in the Northwest Territories**

Region	Year	Corporate Income Tax Paid (\$)	Tax-Paying Companies	Non Tax-Paying Companies	Total Companies
Northwest Territories	1995	32,650,756	895	1,158	2,053
	1996	31,369,701	887	1,193	2,080
	1997	27,024,079	932	1,356	2,288
	1998	23,965,218	953	1,335	2,288
	1999	89,778,543	957	1,342	2,299
	2000	382,558,653	920	1,126	2,046
	2001	80,931,551	–	–	–
Yellowknife region <sup>1</sup>	1995	31,996,748	721	817	1,538
	1996	30,715,198	710	830	1,540
	1997	26,312,437	757	974	1,731
	1998	23,128,104	774	955	1,729
	1999	88,148,015	811	1,021	1,832
	2000	380,858,591	771	817	1,588

Table 2-6: Corporate Tax Status in the Northwest Territories (cont'd)

Region	Year	Corporate Income Tax Paid (\$)	Tax-Paying Companies	Non Tax-Paying Companies	Total Companies
BDR <sup>2</sup>	1995	141,614	43	116	159
	1996	286,548	56	115	171
	1997	153,810	55	123	178
	1998	314,806	60	116	176
	1999	691,900	54	96	150
	2000	1,284,076	56	98	154
SSA	1995	64,634	21	44	65
	1996	51,939	18	52	70
	1997	82,048	19	57	76
	1998	61,303	15	60	75
	1999	32,035	9	37	46
	2000	47,898	15	29	44
<b>DCR</b>	<b>1995</b>	<b>40,256</b>	<b>18</b>	<b>38</b>	<b>56</b>
	<b>1996</b>	<b>40,786</b>	<b>20</b>	<b>38</b>	<b>58</b>
	<b>1997</b>	<b>40,839</b>	<b>17</b>	<b>39</b>	<b>56</b>
	<b>1998</b>	<b>41,665</b>	<b>12</b>	<b>39</b>	<b>63</b>
	<b>1999</b>	<b>238,010</b>	<b>13</b>	<b>38</b>	<b>51</b>
	<b>2000</b>	<b>41,665</b>	<b>12</b>	<b>39</b>	<b>51</b>
NOTES: – = data not available BDR = Beaufort Delta Region SSA = Sahtu Settlement Area DCR = Deh Cho Region 1 Yellowknife region includes Yellowknife, and the N'dilo and Dettah suburbs 2 Only data aggregated for Inuvialuit and Gwich'in communities is available Income tax amounts are not adjusted for inflation					
SOURCE: GNWT Finance (2002)					

Table 2-7 shows that in 2001, average employment income per tax filer was about \$38,000 in Hay River, well above levels for any of the Northwest Territories Aboriginal communities. The number of monthly income support beneficiaries declined between 1996 and 2003.

**Table 2-7: Employment Income and Income Support Beneficiaries for the Industrial and Commercial Centres in the Northwest Territories**

Location	Average Employment Income			Income Support Beneficiaries <sup>1</sup>			
	1996 (\$)	1999 (\$)	2001 (\$)	1996 (No.)	1999 (No.)	2001 (No.)	2003 (No.)
NWT	33,748	35,450	38,497	102	86	59	53
Yellowknife	40,118	41,870	45,147	713	694	473	472
<b>Hay River</b>	<b>31,186</b>	<b>34,421</b>	<b>38,246</b>	<b>243</b>	<b>346</b>	<b>224</b>	<b>168</b>
Enterprise	–	–	–	–	–	–	–

NOTES:  
– = data not available, or held confidential because of low frequencies  
<sup>1</sup>Average monthly number of recipients and dependents per 1,000 population, calculated based on population estimates for 1996 to 2002, prepared by GNWT Bureau of Statistics  
Dollar amounts not adjusted for inflation

SOURCE: GNWT Bureau of Statistics (2002a, 2003g)

## 2.6 Cost of Living

The data reported for cost of living comes from:

- a 2000 cost-of-living index that uses Edmonton as a base
- a 2001 food price index that uses Yellowknife as a base

In 2000, the cost of living was about 25 to 30% higher in Hay River than in Edmonton. Hay River food prices were about 10% higher than Yellowknife prices (see Table 2-8).

**Table 2-8: Cost of Living Differentials for the Industrial and Commercial Centres in the Northwest Territories**

Region	Community	Cost of Living Differential <sup>1</sup> (2000)	Estimated Food Price Index <sup>2</sup> (2001)
ICCs	Yellowknife	120–125	100
	<b>Hay River</b>	<b>125–130</b>	<b>110</b>
	Enterprise	–	–

NOTES:  
– = data not available or too small to be expressed  
<sup>1</sup> Cost of living differentials are used to calculate the Government of Canada federal isolated post allowances and use Edmonton as a base, e.g., Edmonton = 100  
<sup>2</sup> Food price indexes are calculated using Yellowknife as a base, e.g., Yellowknife = 100

SOURCE: GNWT Bureau of Statistics (2003g)

### 3 INFRASTRUCTURE AND COMMUNITY SERVICES

#### 3.1 Introduction

This section describes the physical infrastructure and services that affect the quality of life of people, families and the communities in which they live. Included are:

- transportation infrastructure
- utilities, i.e., water and waste disposal
- energy and communications
- housing
- local recreation facilities

A discussion of governance is included in this section.

#### 3.2 Transportation Infrastructure

Table 3-1 shows the transportation infrastructure for Hay River.

**Table 3-1: Transportation Infrastructure for the Industrial and Commercial Centres in the Northwest Territories (2000)**

Transportation Mode	Yellowknife	Hay River	Enterprise
<b>Road</b>			
Road access	All-weather road, seasonally restricted	<b>All-year highway access</b>	All-year highway access
Average daily traffic (number of vehicles)	2001 = 5,060 2000 = 4,980	<b>2001 = 2,440 2000 = 2,420</b>	–
Highway	Highway Nos. 1 and 3	<b>Highway Nos. 1 and 2</b>	Highway Nos. 1 and 2
Road surface	Paved, dust-controlled gravel, untreated gravel	<b>Paved</b>	Paved
Average opening and closing dates (1997–2000), ice bridges	January 2 to April 17	<b>N/A</b>	N/A
<b>Rail</b>			
Rail access	None	<b>All-year (with Edmonton)</b>	All-year (with Edmonton)
<b>Water</b>			
Marine resupply available	Yes	<b>Yes</b>	No
Ownership of facility	P	<b>T, P</b>	N/A
Resupply facility classification	A	<b>A</b>	N/A
Small boating facilities	City boat launch, private and government-owned wharfs and floats	<b>Porritt Landing, west channel beach landing and wharf, floating dock</b>	Yes

**Table 3-1: Transportation Infrastructure for the Industrial and Commercial Centres in the Northwest Territories (2000) (cont'd)**

Transportation Mode	Yellowknife	Hay River	Enterprise
<b>Air</b>			
Runway length	2,286 m, 1,524 m	<b>1,829 m, 1,220 m</b>	None
Runway surface	Asphalt	<b>Asphalt, asphalt and gravel</b>	N/A
Owner	GNWT	<b>GNWT</b>	N/A
Critical aircraft (largest aircraft able to use runway)	B737	<b>B737</b>	N/A
Weather and communication aids	FSS	<b>FSS</b>	N/A
Navigational aids	ILS, DME, NDB	<b>ILS, DME, NDB</b>	N/A
<p>NOTES:</p> <p>– = data not available N/A = not applicable</p> <p>Water Transportation:</p> <p>T = Facility owned by federal government P = Privately owned</p> <p>Water Facility Resupply Classification:</p> <p>A = &gt;10,000 t cargo and fuel in and out per year, protected access at all water levels, secure moorage for loading and unloading, access for heavy equipment, secure marshalling and storage site B = 2,000–10,000 t cargo and fuel in and out per year, secure moorage at all water levels, access 4 hours/day, access for heavy equipment, secure marshalling and storage site C = &lt;2,000 t cargo and fuel in and out per year, access for loading and unloading 4 hours/day, access for heavy equipment, secure marshalling and storage site</p> <p>Air Transportation:</p> <p>DME = distance measuring equipment FSS = flight service station GNWT = Government of the Northwest Territories ILS = instrument landing system NDB = nondirectional beacon</p>			
SOURCE: GNWT Transportation (2000, 2001)			

Hay River, located on Great Slave Lake near the outflow of the Mackenzie River, at the terminus of the railway from the south, and near the junctions of Highway Nos. 1, 2 and 5, is the barging transportation hub of the Northwest Territories. It services the communities around Great Slave Lake, including Yellowknife, along the Mackenzie River and on the Arctic coast to the east.

The origins of Hay River go back to 1868, but it was only with completion of the Mackenzie Highway from Grimshaw, Alberta to Hay River in 1948 that the community began to develop as a transportation and communications centre. In 1964, Hay River's position as a transportation centre was further strengthened with completion of a Canadian National Railways rail link from Hay River south to Alberta. At present, rail freight service to Enterprise and Hay River from Edmonton is provided by the Mackenzie Northern Railway, a division of Rail Link Canada, owned by Rail America.

Hay River’s airport facility has two short runways, one asphalt and one gravel. Three air carriers offer scheduled passenger and cargo service to Hay River.

Hay River has all-weather roadway connections to Alberta and Fort Simpson. The all-weather Highway No. 3 connection to Yellowknife is seasonally restricted by freezeup and breakup on the Mackenzie River at Fort Providence. Hay River has scheduled trucking and bus services all year. Marine resupply, outbound from Hay River, makes use of community marine facilities, including wharves, breakwaters, landings, staging and marshalling sites, and other infrastructure required for loading, unloading and protecting resupply vessels. Northern Transportation Company Limited (NTCL), based in Hay River, has a fleet of 13 tugs and 70 barges that operate on the Mackenzie River and Beaufort Sea (GNWT Transportation 2000, 2001).

### 3.3 Utilities, Energy and Communications

Water is sourced from Great Slave Lake for Hay River. Arrangements exist for liquid waste and solid waste disposal. The Northwest Territories Power Commission supplies hydroelectric power, with diesel backup and 1,000 kW of spare capacity (see Table 3-2). The most common type of heating fuel is P-50 fuel oil, but propane is also used.

**Table 3-2: Utilities Infrastructure for the Industrial and Commercial Centres in the Northwest Territories (2001)**

Utility	Yellowknife	Hay River	Enterprise
<b>Water</b>			
Delivery system	Trucked or piped	<b>Piped</b>	Trucked or piped from private wells
Water source	Yellowknife River	<b>Great Slave Lake</b>	Piped from Hay River and private wells
Water treatment	Chemical feed equipment treats water with chlorine and fluoride	<b>Treatment system includes absorption clarifiers, filters, chemical systems, automatic process valves and controls, an air scour system, and an automatic control system</b>	Hay River’s treatment system Private wells have none.
Water quality	Good to excellent quality	<b>Good chemical quality for domestic use</b>	Hay River water – good Private wells – have H <sub>2</sub> S
<b>Liquid Waste</b>			
Type of system	Bagged, pumpout or piped	<b>Pumpout or piped</b>	Pumpout
Sewage disposal	Long retention lake-lagoon discharges into Great Slave Lake	<b>Sewage is discharged through forcemains into a 6.5-km drainage ditch, which directs the effluent to a wetlands treatment area and eventually into Great Slave Lake</b>	Trucked to a 12,000-m <sup>3</sup> sewage lagoon

Table 3-2: Utilities Infrastructure for the Industrial and Commercial Centres in the Northwest Territories (2001) (cont'd)

Utility	Yellowknife	Hay River	Enterprise
<b>Solid Waste</b>			
Type of disposal	Landfill site with baler system	<b>150 m x 40 m x 4 m municipal landfill site located 8 km southeast of community</b> <b>Site compacted daily when possible</b>	Weekly pickup, trucked to 10-cell modified waste management site, compacted and covered every two weeks, backfilled when full
<b>Electric Power</b>			
Installed capacity	30.3 MW Snare System 26.2 MW diesel	<b>7.1 MW, reserve</b> <b>Max take off from Northland Utilities power grid is 8 MW</b>	Supplied from Hay River
Provided by, source	Northwest Territories Power Commission Snare System hydro plant, with diesel backup	<b>Northland Utilities (NWT) Limited, Taltson Hydro system, with diesel backup</b>	Supplied from Hay River
Peak load requirement	29.1 MW	<b>5.9 MW (in 2003)</b>	N/A
Installed capacity	20 MW (hydro) 7.2 MW (diesel backup)	<b>Supplied by Northwest Territories Power Commission Grid</b>	Included in Hay River capacity
Surplus power capacity <sup>1</sup>	9,000 kW	<b>1,000 kW</b>	– <sup>2</sup>
<b>Heating Fuel</b>			
Types of heating fuel	P-50 fuel oil, propane	<b>P-50 fuel oil, propane</b>	–
<p>NOTES:</p> <p>– = data not available N/A = not applicable 1 No allowance made for reserve power requirements 2 Power supplied by Northwest Territories Power Commission power grid. Spare power capacity cannot be determined.</p>			
<p>SOURCES: GNWT Municipal and Community Affairs (MACA) (2002), Northwest Territories Power Commission (2002), Northland Utilities (2004, personal communication), Rust (2004, personal communication)</p>			

Table 3-3 describes the existing communications infrastructure in Hay River. Hay River has all of the communication facilities and resources typical of most small towns in Canada.

**Table 3-3: Selected Communications Infrastructure for the Industrial and Commercial Centres in the Northwest Territories (2001)**

Communication Type	Yellowknife	Hay River	Enterprise
Cellular phone	Yes	<b>Yes</b>	No
Radio phone	VHF	<b>VHF</b>	VHF
Video conference	Yes	–	–
Internet	Yes (also high speed available)	<b>Sympatico and public</b>	Sympatico
Transmission of telecommunications	Microwave transmitters	<b>Microwave transmitters</b>	Microwave transmitters
Radio	CBC regional production centre, CJCD, CKLB, French language radio station	<b>CBC, CJCD, community radio station</b>	CBC, CJCD
Television	CBC via Anik satellite, cable (75 channels)	<b>CBC via Anik satellite, three Cancom channels</b>	CBC via Anik satellite, three Cancom channels
Newspaper coverage	<i>News/North, Yellowknifer, L'Aquilon</i>	<b><i>News/North, Hay River Hub</i></b>	<i>News/North, Hay River Hub</i>
Frequency of mail delivery per week	5 times	<b>5 times</b>	5 times
NOTES: – = data not available VHF = very high frequency			
SOURCES: GNWT Resources, Wildlife and Economic Development (RWED) (1999), NorthwestTel personnel (2001, personal communication), GNWT MACA (2002), GB Superior Sound (Hay River) personnel (2002, personal communication)			

### 3.4 Housing and Recreation

In contrast to the housing shortage in Yellowknife, rental units were still available in Hay River in April 2004.

Compared to the territorial average, Table 3-4 shows that the housing in Hay River was less satisfactory than either Yellowknife or Enterprise, with 21% of the houses being in need of major repairs.

In Hay River, only 4% of community households had six or more members in 2001, compared to 7% in the Northwest Territories as a whole (Northwest Territories Housing Corporation 2000).

Hay River has recreational facilities comparable with those found in most Canadian towns of similar size.

**Table 3-4: Housing by Repairs Needed for the Industrial and Commercial Centres in the Northwest Territories (2001)**

Location	Total Houses (No.)	Needs Regular Maintenance <sup>1</sup> (%)	Needs Minor Repairs <sup>2</sup> (%)	Needs Major Repairs <sup>3</sup> (%)
NWT	12,565	52	32	16
Yellowknife	5,795	59	31	10
<b>Hay River</b>	<b>1,240</b>	<b>44</b>	<b>35</b>	<b>21</b>
Enterprise	25	60	0	40

## NOTES:

- 1 Regular maintenance refers to such conditions as requiring painting or furnace cleaning
- 2 Minor repairs refers to such conditions as missing or loose floor tiles, brick or shingles, or to defective steps, railing or siding
- 3 Major repairs refers to such conditions as defective plumbing or electrical wiring, or structural repairs to walls, floors or ceilings

SOURCE: Statistics Canada (2003a)

### 3.5 Governance

Included in governance are the planning and decision-making organizations, such as band councils, community corporations, and town and city councils. The resources made available to these organizations by the GNWT and, in some cases, the Government of Canada, are also included.

All of the existing governance relationships between the federal and territorial governments, and the Aboriginal people, their organizations and communities in the Northwest Territories are in the process of change through ongoing negotiations. These ongoing processes involve negotiations to achieve devolution of authority, and to confer self-government responsibilities on Aboriginal peoples.

The ICCs include a city, Yellowknife, a town, Hay River, and an incorporated settlement, Enterprise. A mayor and eight counsellors, serving for terms of three years, exercise administrative authority in Yellowknife and Hay River. Enterprise has a mayor, a deputy mayor and four counsellors, all serving for two-year terms. Hay River and Enterprise are both in the Deh Cho land claims area, whereas Yellowknife is in the North Slave land claims region. All three are primarily Euro-Canadian communities. There are local Dene bands in Yellowknife and Hay River.

## 4 INDIVIDUAL, FAMILY AND COMMUNITY WELLNESS

### 4.1 Introduction

This section describes community wellness in the study area, which refers to the physical, emotional, social and economic well-being of all components of a community, including individuals and families.

Aboriginal people have long recognized the interaction and interdependence of physical, emotional, mental and social well-being. Viewing the spiritual as the centrally important component, some Aboriginal communities have formed healing circles to deal with family issues, sentencing and rehabilitation of offenders, and the debilitating problems of those who experienced various forms of abuse while attending residential schools.

In western healing and helping professions, recognizing a holistic approach to wellness has been much more recent. GNWT HSS personnel have sought to deal with intertwined physical, social and emotional health concerns using a community wellness approach for almost a decade (GNWT HSS 1995).

The present emphasis on a community wellness approach by the GNWT HSS originated from an assessment in 2000 of the challenges and problems in wellness services (GNWT HSS 2001a). The most recent evidence of the GNWT's commitment to health and well-being is found in *Health Promotion Strategy* (GNWT Bureau of Statistics 2003h), which provides a framework for increased investment in promotion and prevention activities at the territorial, regional, local and individual levels.

The influence of these interrelated concerns is seen in this section on individual, family and community wellness, which deals with wellness-conserving facilities and services, and the conditions and activities of people to which these services must respond. Information is provided on:

- health conditions
- health care facilities and services
- family concerns and community conditions
- social service facilities and services
- education and training

The most significant achievement of GNWT HSS has been the sharp reduction in new cases of tuberculosis, once a very serious health problem for northern people. With implementation of the *Action Plan to Strengthen Tuberculosis Management and Control in the Northwest Territories*, the numbers of new cases per year have been steadily reduced, from 24 in 1996 to four in 2002. Of the four in 2002, two were immigrants (Case 2003).

Currently, the most serious addiction in the Northwest Territories is alcohol, which is the most frequent source of wellness problems. According to a recent coroner's report, 40% of health costs relate to addictions or mental health problems (Penney 2003).

The effects of alcohol abuse include:

- foetal alcohol syndrome (FAS) or foetal alcohol effects (FAE)
- sexual abuse of family members
- sexually transmitted infections (STIs)

Additional effects of alcohol abuse are also discussed in the following sections.

The most costly effect is the birth of FAS/FAE babies to mothers abusing alcohol. Studies have shown that hospital use is many times higher by FAS/FAE children than by other children (Chatel 2003). These children are typically unable to learn from experience and thus have severe behavioural problems that may be life long. As a result, the lifetime health and social costs are estimated to be more than \$2 million per FAS/FAE person (Carey 2003). No further discussion of FAS/FAE children is provided here because statistical data is unavailable. This is because most births in the Northwest Territories are attended by nurse-midwives rather than by physicians, and only physicians can make a FAS/FAE diagnosis. However, from the accounts of nurses and teachers who work with FAS/FAE children in school, many such children exist in the Northwest Territories.

Incidents of sexual abuse are notably under-reported, thus the available data is unreliable (National Crime Prevention Centre 2001). Alcohol abuse and mental disorders are intimately related, as childhood abuse may lead to both, and increases in one may lead to parallel increases in the other. The RCMP reported over 400 cases of sexual assault for 2000 and 2001 in the Northwest Territories. Northwest Territories health centres report seeing 300 to 350 people annually for assessment and counselling related to sexual abuse or assault. Sexual abuse of children is the least acknowledged of offences, in part because the abuser is often well-known to the victim and his or her family. While between 2000 and 2003, child protection workers investigated 350 cases of suspected sexual abuse of children, this number should not be seen as a complete count, since many such incidents go unreported. Sexual abuse of children may infect them with STIs, and 15 children under 12 years of age were found to have STIs between 1998 and 2003 in the Northwest Territories. The STI incidence among children aged 12 to 15 years in the Northwest Territories more than doubled during this period, from 44 to 90 cases per year (White 2003).

The rates for STIs are very high in the Northwest Territories, and the contexts in which these infections are transmitted are often associated with alcohol consumption. In recent years, chlamydia rates in the Northwest Territories were six times as high as Canadian rates, and gonorrhoea infection rates were over

20 times the Canadian rate. Among those aged 16 to 18 years, a 63% increase occurred between 1996 and 2001 (Harrison 2002). Community-specific STI data is provided in the following sections.

Suicide is a health concern in the Northwest Territories, both because the incidence of suicide is so high relative to the rest of Canada, and because so many are teenage suicides. Because of the unreliability of suicide frequencies, given the small populations, this discussion is based on rates for the Northwest Territories as a whole.

The three-year average age-adjusted suicide rates, which compensate for differences in age distributions, were twice as high in the Northwest Territories as in Canada for 1999 to 2001 (Little 2002). The 1998 to 2002 suicide rate of youths aged 10 to 19 years in the Northwest Territories was four times the Canadian rate, and the rate for those aged 20 to 29 years in the Northwest Territories was almost three times the Canadian rate. Data on hospitalizations of females for self-inflicted injuries is relevant because of women's relatively frequent rates of attempted unsuccessful suicide. The rate of such hospitalizations in 1995 to 1999 for Northwest Territories females aged 10 to 19 years was over three times as high as the rate for Canadian females of this age (Little 2003).

## 4.2 Health Conditions

The incidence of various disease conditions treated by a physician in Hay River is elevated by the easy access to physician treatment which Hay River residents enjoy, in contrast to the greater inaccessibility of physicians for residents of all the other study area communities except Yellowknife and Inuvik.

In 1999, 33% of the population over 15 years of age in Hay River smoked (GNWT Bureau of Statistics 1999).

As Table 4-1 shows, the three-year average rate of physician treatments of respiratory diseases for Hay River was 609 per 1,000 population in 2000–2002, substantially higher than the 481 per 1,000 rate for the Northwest Territories in that period.

**Table 4-1: Cases of Respiratory Diseases Treated by Physicians in the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./1,000)	1995–1997 (No./1,000)	1996–1998 (No./1,000)	1997–1999 (No./1,000)	1998–2000 (No./1,000)	1999–2001 (No./1,000)	2000–2002 (No./1,000)
NWT	638	612	587	559	543	504	481
Yellowknife	807	747	706	685	683	636	605
<b>Hay River</b>	<b>928</b>	<b>911</b>	<b>894</b>	<b>863</b>	<b>792</b>	<b>705</b>	<b>609</b>
Enterprise	–	–	–	–	–	–	–
NOTES: – = data not available Numbers are claim counts by International Classification of Diseases, Version (ICD-9) code for the particular group of conditions Three-year average rates per 1,000 population							
SOURCE: GNWT HSS (2003b)							

Table 4-2 shows the three-year average rate in Hay River for infectious and parasitic diseases in 2000–2002, 232 per 1,000 population, was only slightly higher than the Northwest Territories rate of 218 per 1,000. Both sets of rates are higher than those for the BDR, SSA or DCR, probably because physicians are easily accessible in both communities.

**Table 4-2: Cases of Infectious and Parasitic Diseases Treated by Physicians in the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./1,000)	1995–1997 (No./1,000)	1996–1998 (No./1,000)	1997–1999 (No./1,000)	1998–2000 (No./1,000)	1999–2001 (No./1,000)	2000–2002 (No./1,000)
NWT	253	245	250	235	232	222	218
Yellowknife	361	357	369	358	356	338	326
<b>Hay River</b>	<b>244</b>	<b>229</b>	<b>220</b>	<b>190</b>	<b>190</b>	<b>214</b>	<b>232</b>
Enterprise	–	–	–	–	–	–	–
NOTES: – = data not available Numbers are claim counts by ICD-9 code for the particular group of conditions Claim frequencies for each community were divided by the population of the community, giving a figure, usually a decimal, for the number of cases per person. This was then multiplied by 1,000. Three-year average rates per 1,000 population							
SOURCE: GNWT HSS (2003b)							

Table 4-3 shows that the three-year average STI rates in Hay River, for both sexes and all ages have been lower than the Northwest Territories rates in recent years. The Hay River rates declined from 14 per 1,000 population in 1994–1996, to 8 per 1,000 population in 1998–2000, and then increased to 14 per 1,000 in 2000–2002. The rates for the Northwest Territories as a whole increased steadily during this period.

**Table 4-3: Cases of Sexually Transmitted Infections for the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./1,000)	1995–1997 (No./1,000)	1996–1998 (No./1,000)	1997–1999 (No./1,000)	1998–2000 (No./1,000)	1999–2001 (No./1,000)	2000–2002 (No./1,000)
NWT	11	11	12	12	14	15	16
Yellowknife	8	8	11	13	15	12	11
<b>Hay River<sup>1</sup></b>	<b>14</b>	<b>11</b>	<b>12</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>14</b>
Enterprise	–	–	–	–	–	–	–

NOTES:  
 – = data not available  
 1 Data for Kakisa is included in the Hay River statistics  
 STIs include chlamydia, gonorrhoea and hepatitis B  
 Numbers are claim counts by ICD-9 code for the particular group of conditions  
 Calculated based upon population estimates prepared by GNWT Bureau of Statistics  
 Three-year average rates per 1,000 population, both sexes and all ages

SOURCE: GNWT HSS (2003b)

As Table 4-4 shows, the three-year average rates for accidents, injuries and poisonings treated by physicians in Hay River, high in comparison with the Northwest Territories rates, fell quite steadily, from 596 per 1,000 population in 1994–1996, to 457 per 1,000 in 2000–2002.

**Table 4-4: Cases of Accidents, Injuries and Poisonings Treated by Physicians in the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./1,000)	1995–1997 (No./1,000)	1996–1998 (No./1,000)	1997–1999 (No./1,000)	1998–2000 (No./1,000)	1999–2001 (No./1,000)	2000–2002 (No./1,000)
NWT	442	424	408	399	394	371	353
Yellowknife	531	495	471	463	468	434	407
<b>Hay River</b>	<b>596</b>	<b>544</b>	<b>509</b>	<b>480</b>	<b>470</b>	<b>452</b>	<b>457</b>
Enterprise	–	–	–	–	–	–	–

NOTES:  
 – = data not available  
 Numbers are claim counts by ICD-9 code for the particular group of conditions  
 Three-year average rates per 1,000 population

SOURCE: GNWT HSS (2003b)

In Hay River, 4% of the deaths between 1994 and 1998 were suicides, a rate almost identical with that for all of the Northwest Territories (GNWT Bureau of Statistics 2003a).

Table 4-5 shows the number of accidental deaths in 1994 through 1998, expressed as a percentage of total deaths. In Hay River this figure was 17%.

**Table 4-5: Deaths from Injuries for the Industrial and Commercial Centres in the Northwest Territories (1994 to 1998 average)**

Location	Deaths from Injuries			Average Number of Deaths
	Average Number	Per 1,000 Population	Percentage of All Deaths	
NWT	28.0	0.68	20	143.0
DCR total <sup>1</sup>	3.8	1.18	26	14.4
Yellowknife	5.4	0.30	14	38.2
<b>Hay River</b>	<b>2.6</b>	<b>0.68</b>	<b>17</b>	<b>15.4</b>
Enterprise	–	–	–	–

NOTES:  
– = data not available  
1 Data for the Hay River Reserve and West Point Reserve are unavailable, and so not included in this total  
Five-year average numbers, rates and percentages

SOURCE: GNWT Bureau of Statistics (2003c)

Table 4-6 indicates that the three-year average rates of physician treatments of mental disorders in Hay River in 2000–2002, 302 per 1,000 population, was slightly lower than the Northwest Territories rate of 337 per 1,000. The Hay River rates declined between 1994–1996 and 2000–2002.

**Table 4-6: Cases of Mental Disorder Treated by Physicians in the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./1,000)	1995–1997 (No./1,000)	1996–1998 (No./1,000)	1997–1999 (No./1,000)	1998–2000 (No./1,000)	1999–2001 (No./1,000)	2000–2002 (No./1,000)
NWT	335	338	355	367	369	349	337
Yellowknife	419	427	458	488	510	500	492
<b>Hay River</b>	<b>395</b>	<b>392</b>	<b>394</b>	<b>377</b>	<b>360</b>	<b>336</b>	<b>302</b>
Enterprise	–	–	–	–	–	–	–

NOTES:  
– = data not available  
Numbers are claim counts by ICD-9 code for the particular group of conditions  
Three-year average rates per 1,000 population

SOURCE: GNWT HSS (2003b)

### 4.3 Health Care Facilities and Services

Table 4-7 lists the facilities and services provided by the Hay River Health and Social Services Authority for the town of Hay River, Enterprise and Hay River Reserve.

**Table 4-7: Hay River Health and Social Service Authority Facilities (2004)**

Location	Facility Name	Description
Hay River	<ul style="list-style-type: none"> <li>• Hay River Emergency Group Home</li> <li>• Hay River Public Health</li> <li>• Hay River Social Services</li> <li>• H.H. Williams Memorial Hospital</li> <li>• Medical clinic</li> <li>• Woodland Manor</li> </ul>	<ul style="list-style-type: none"> <li>• Child Welfare facility</li> <li>• Public health unit</li> <li>• Social Services office</li> <li>• Regional hospital</li> <li>• Medical clinic</li> <li>• Multiple-level care residence</li> </ul>
Enterprise	<ul style="list-style-type: none"> <li>• Enterprise Social Services</li> </ul>	<ul style="list-style-type: none"> <li>• Serviced from Hay River</li> </ul>
Hay River Reserve	<ul style="list-style-type: none"> <li>• Hay River Reserve Health Station</li> <li>• Hay River Reserve Social Services</li> </ul>	<ul style="list-style-type: none"> <li>• Health station</li> <li>• Serviced from Hay River</li> </ul>
SOURCE: GNWT HSS (2004)		

The Hay River Hospital serves the Aboriginal communities in the southern half of the territorial study area and, when required, serves as an overflow facility for the other Northwest Territories hospitals. Residents of Enterprise requiring hospitalization use the facilities in Hay River.

#### 4.4 Family and Community Conditions

As in other Northwest Territories communities, alcohol abuse is the cause of many problems in Yellowknife and Hay River. There is a liquor store in Hay River. Table 4-8 shows the hospitalizations for alcohol-related illnesses, an indicator of abuse. However, rates for Hay River are not available. The 1999–2001 three-year average rate for Yellowknife was 329 per 100,000 population, much lower than the Northwest Territories rate of 443 per 100,000 population.

**Table 4-8: Hospitalizations for Alcohol-Related Illnesses for the Industrial and Commercial Centres in the Northwest Territories**

Location	1994–1996 (No./100,000)	1995–1997 (No./100,000)	1996–1998 (No./100,000)	1997–1999 (No./100,000)	1998–2000 (No./100,000)	1999–2001 (No./100,000)
NWT	367	390	430	464	460	443
Yellowknife	213	206	257	318	354	329
<b>Hay River</b>	–	–	–	–	–	–
Enterprise	–	–	–	–	–	–
NOTES: – = data not available Alcohol-related conditions include alcohol psychoses, alcohol dependency syndrome and nondependent alcohol abuse Three-year average rates per 100,000 population						
SOURCE: GNWT HSS (2003b)						

The alcohol-related offence rate in 2002 in Hay River was 341 per 1,000 population, somewhat higher than the 313 per 1,000 rate for the whole study area (GNWT HSS 2002). Rates of drug offences appear to have increased in Hay River since 1998, but they are very low in comparison with rates for liquor offences. The illicit drug traffic, now increasing because of elevated prosperity, is a major concern in Hay River (RCMP detachment 2002).

The rates of teen births during 1994 to 1998 were lower in Hay River than in the Northwest Territories as a whole (GNWT Bureau of Statistics 2002a). The incidence of lone-parent families increased slightly between 1991 and 1996 (GNWT Bureau of Statistics 2003b; Statistics Canada 2001).

Table 4-9 indicates that in 2001, the spousal assault rate in Hay River, 11 per 1,000 population, was lower than the 14 per 1,000 rate for the Northwest Territories in that year. In both jurisdictions, the rates fluctuated between 1997 and 2001, with no clear indication of a trend.

**Table 4-9: Spousal Assaults for the Industrial and Commercial Centres in the Northwest Territories**

Location	1997 (No./1,000)	1998 (No./1,000)	1999 (No./1,000)	2000 (No./1,000)	2001 (No./1,000)
NWT study area <sup>1</sup>	11	19	21	17	14
Yellowknife	2	5	7	5	6
<b>Hay River<sup>2</sup></b>	<b>10</b>	<b>12</b>	<b>10</b>	<b>15</b>	<b>11</b>
Enterprise	–	–	–	–	–
NOTES: – = data not available 1 Includes all of the communities in the ISR, GSA, SSA and DCR 2 Kakisa, Hay River Reserve and West Point Reserve are policed by the Hay River RCMP detachment Rates per 1,000 population					
SOURCE: RCMP local detachments (2002)					

The number of women and children using family violence shelters is an imperfect indicator of the extent of this problem, because it is likely that many victims cannot gain access to a shelter for various reasons. However, it is noteworthy that the number of Northwest Territories women and children seeking shelter from family violence is five times higher than in Canada as a whole (GNWT HSS 1999).

Table 4-10 shows that the two-year average rate of children taken into care in 2002–2003 in Hay River, 12 per 1,000 population, was lower than the 17 per 1,000 rate for the Northwest Territories in that year. Between 1995–1996 and 2002–2003, the rates of children taken into care per 1,000 fluctuated in Hay River.

**Table 4-10: Children Taken into Care for the Industrial and Commercial Centres in the Northwest Territories**

Location	1995–1996 (No./1,000)	1997–1998 (No./1,000)	1998–1999 (No./1,000)	2000–2001 <sup>1</sup> (No./1,000)	2001–2002 <sup>1</sup> (No./1,000)	2002–2003 <sup>1</sup> (No./1,000)
NWT	14	13	15	14	16	17
Yellowknife	10	12	11	13	15	16
<b>Hay River<sup>2</sup></b>	<b>8</b>	<b>11</b>	<b>16</b>	<b>10</b>	<b>10</b>	<b>12</b>
Enterprise	–	–	–	–	–	–

NOTES:  
 – = data not available  
 1 Numbers of children with a protection status during some part of the fiscal year, including plan of care, supervision, apprehension, temporary custody and permanent custody children  
 2 Hay River Reserve, West Point Reserve and Enterprise are included in Hay River  
 Average rates per 1,000 total population for fiscal years, calculated based on population estimates prepared by GNWT Bureau of Statistics

SOURCE: GNWT HSS (2003b)

More than anywhere else in the Northwest Territories, Aboriginal young people living in Hay River and Yellowknife are caught between the pressures to live a more traditional life and being attracted to a commercial, southern-Canadian lifestyle. A mental health worker in Yellowknife, with 16 years of experience, reported that many of his Aboriginal adolescent clients are becoming less attached to their cultural base. They want more material goods, and everything that southern adolescents have and do (Yellowknife GNWT HSS personnel 2002, personal communication). The result is that many young people get into trouble and come to the attention of the police. They might be charged under the *Young Offenders Act*, applicable only to offenders under 18 years of age.

Table 4-11 shows that in 2002, the rate of those charged under the *Young Offenders Act* was 138 per 1,000 youth in Hay River, compared with the 135 per 1,000 youth for the Northwest Territories study area. Between 1997 and 2002, the rates for Hay River fluctuated without a definite trend.

**Table 4-11: Young Offenders Act Offences for the Industrial and Commercial Centres in the Northwest Territories**

Location	1997 (No./1,000)	1998 (No./1,000)	1999 (No./1,000)	2000 (No./1,000)	2001 (No./1,000)	2002 (No./1,000)
NWT study area <sup>1</sup>	67	131	145	104	126	135
Yellowknife	61	88	110	77	79	73
<b>Hay River</b>	<b>140</b>	<b>104</b>	<b>117</b>	<b>126</b>	<b>134</b>	<b>138</b>
Enterprise	–	–	–	–	–	–

NOTES:  
 – = data not available  
 1 Includes all of the communities in the ISR, GSA, SSA and DCR  
 Rates per 1,000 population aged 12 to 19 years

SOURCE: RCMP local detachments (2002)

The data in Table 4-12 shows that violent crime and property crime rates in Hay River and the Northwest Territories were comparable. Both rates tended to decline between 1997 and 2000.

**Table 4-12: Violent Crimes and Property Crimes for the Industrial and Commercial Centres in the Northwest Territories**

Location	Violent Crimes <sup>1</sup>				Property Crimes <sup>2</sup>			
	1997 (No./1,000)	1998 (No./1,000)	1999 (No./1,000)	2000 (No./1,000)	1997 (No./1,000)	1998 (No./1,000)	1999 (No./1,000)	2000 (No./1,000)
NWT	54	50	50	47	66	70	58	57
Yellowknife	32	28	32	32	52	57	48	51
<b>Hay River<sup>3</sup></b>	<b>50</b>	<b>42</b>	<b>41</b>	<b>46</b>	<b>59</b>	<b>60</b>	<b>54</b>	<b>50</b>
NOTES:								
1 Violent crimes include homicide, attempted murder, sexual assault, nonsexual assault, other sexual offences, abduction and robbery								
2 Property crimes include breaking and entering, theft of motor vehicles, theft over \$5,000, theft of \$5,000 and under, possession of stolen goods, and fraud								
3 Enterprise is policed by the Hay River RCMP								
Rates per 1,000 population								
SOURCE: GNWT Bureau of Statistics (2003c)								

#### 4.5 Social and Protection Facilities and Services

The health and social services boards in Yellowknife and Hay River deliver social services to these communities. Board social services are available to the residents of all the communities served by these boards. Services that are not available from these boards can be sought outside of the Northwest Territories, upon referral of board staff.

Table 4-13 lists the staff and facilities of the Hay River RCMP detachment, which is also responsible for supplying policing services to Enterprise.

Hay River has emergency medical technician ambulance service, a volunteer fire fighting service and a current emergency plan.

**Table 4-13: Protection Service Features for the Industrial and Commercial Centres in the Northwest Territories (2001)**

Location	RCMP – Officers and Facilities			Ambulance Service	Numbers of Firefighters	Current Emergency Plan
	Numbers of Officers	Numbers of Cells	Maximum Capacity of Cells			
Yellowknife	30	11	110, including holding cell capacity	Yes	18 C, 18 V	Yes
<b>Hay River</b>	<b>9</b>	<b>4</b>	<b>12, not including holding cell</b>	<b>Yes</b>	<b>31 V</b>	<b>Yes</b>

**Table 4-13: Protection Service Features for the Industrial and Commercial Centres in the Northwest Territories (2001) (cont'd)**

Location	RCMP – Officers and Facilities			Ambulance Service	Numbers of Firefighters	Current Emergency Plan
	Numbers of Officers	Numbers of Cells	Maximum Capacity of Cells			
Enterprise	Policed from Hay River	N/A	N/A	No	2V (but typically more)	No
NOTES: N/A = not applicable C = career V = volunteer						
SOURCES: GNWT MACA (2002), RCMP G Division (2002)						

## 4.6 Education and Training

### 4.6.1 Levels of Education and Training

Table 4-14 shows that the percentages of Hay River high school graduates in 2001, 67%, and of adults with some post-secondary education, 58%, were only slightly higher than these attainment figures for the Northwest Territories at 65% for high school graduates and 56% for some post-secondary education. The percentages of high school graduates for both Hay River and the Northwest Territories show very little change between 1994 and 2001, while the percentages with some post-secondary education showed a similar increase in both areas.

**Table 4-14: Education Attainment Levels for the Industrial and Commercial Centres in the Northwest Territories**

Location	High School Graduation			Some Post-Secondary Education		
	1994 (%)	1999 (%)	2001 (%)	1994 (%)	1999 (%)	2001 (%)
Northwest Territories	65	68	65	44	46	56
Yellowknife	80	82	78	53	53	66
<b>Hay River</b>	<b>65</b>	<b>74</b>	<b>67</b>	<b>42</b>	<b>50</b>	<b>58</b>
Enterprise	–	–	60	–	–	20
NOTES: – = data not available Percentage of population, aged 15 years and older						
SOURCES: Calculated from GNWT Bureau of Statistics (2003f), Statistics Canada (2003a)						

Table 4-15 shows that males had slightly higher rates of high school graduation and post-secondary training than females in Hay River, but this was not true in the Northwest Territories as a whole.

Table 4-15: Education Attainment by Gender for the Industrial and Commercial Centres in the Northwest Territories (2001)

Location	Gender	High School Graduate (%)	Some Post-Secondary Trades Training (%)	Some College or University Education (%)	Some Trades Training, College or University (%)
NWT	Males	64	30	26	56
	Females	66	22	34	56
NWT Aboriginal communities total <sup>1</sup>	Males	43	25	11	37
	Females	44	20	18	38
ICCs	Males	76	32	34	65
	Females	76	22	42	64
Yellowknife	Males	77	31	36	67
	Females	78	22	44	66
Hay River	<b>Males</b>	<b>68</b>	<b>38</b>	<b>22</b>	<b>60</b>
	<b>Females</b>	<b>67</b>	<b>24</b>	<b>33</b>	<b>56</b>
Enterprise	Males	60	–	–	–
	Females	60	–	–	–
NOTES:					
1 All communities in the Northwest Territories study area except Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and Enterprise					
Percentages frequently do not sum to 100 for two cumulating reasons: Statistics Canada random rounding of frequencies, and small community populations (see Section 1.7.3, Limitations of Low-Frequency Data)					
Rates per 1,000 population, aged 15 years and older					
SOURCE: GNWT Bureau of Statistics (2001a)					

#### 4.6.2 Education and Training Facilities

The *Northwest Territories Education Act* established the student–teacher ratio in the Northwest Territories at 16:1. Dividing the school enrollment numbers by the numbers of teachers, the overall student–teacher ratio for Hay River is in keeping with or lower than the legislated ratio (see Table 4-16).

In-school professionals and nonprofessional staff support classroom teachers and students. The GNWT Education, Culture and Employment (ECE) calculates the capacity of each Northwest Territories school. In 2004, the Hay River (Anglophone) school system was operating at 68% of capacity.

Aurora College offers courses in Hay River when justified by demand, and has a campus in Yellowknife.

**Table 4-16: School Profile Data for the Industrial and Commercial Centres in the Northwest Territories**

Location	Budgeted Full-Time Equivalents <sup>1</sup>				Grades Offered	School Capacity (No.)	School Enrollment <sup>3,4</sup> (No.)	Utilization (%)
	Teachers <sup>2</sup> (No.)	Support Staff <sup>2</sup> (No.)	Admin. Staff (No.)	Other Staff (No.)				
<b>Yellowknife<sup>5</sup></b>	<b>192.2</b>	<b>31.02</b>	<b>13.5</b>	<b>46.96</b>	–	<b>4,571</b>	<b>3,678</b>	<b>80</b>
Yellowknife District No. 1	117.3	18.48	8	28.75	–	3,038	2,161	71
Alain St. Cyr	6	3	–	–	K to 12	132	79	60
J.H. Sissons	17.10	3.75	–	–	K to 5	341	224	66
Mildred Hall	19.50	5	–	–	K to 8	517	262	51
N.J. MacPherson	17.91	5	–	–	K to 6	374	237	63
Range Lake North	19.08	5	–	–	K to 8	440	340	77
William McDonald	17.00	3.5	–	–	6 to 8	484	283	58
Sir John Franklin	37.25	8.5	–	–	9 to 12	750	736	98
Yellowknife Catholic Schools <sup>2</sup>	74.9	12.54	5.5	18.21		1,533	1517	99
St. Joseph's	35.25	15.7	3	0	K to 8	583	609	104
St. Patrick's	34	18	3	0	9 to 12	400	510	128
Weledeh	16	12.5	3	0	K to 8	550	398	72
Yellowknife Private Schools	PYs not Allocated	–	–	–	–	–	34	–
The Learning Centre	–	–	–	–	K to 9	–	14	–
Montessori	–	–	–	–	K to 1	–	4	–
Kiononia Christian	–	–	–	–	K to 5	–	16	–
<b>Hay River<sup>6</sup></b>	<b>52.1</b>	<b>13.01</b>	<b>0</b>	<b>12.22</b>		<b>1,253</b>	<b>847</b>	<b>68</b>
<b>Diamond Jenness</b>	<b>27.3</b>	<b>7</b>	<b>1</b>	<b>4</b>	<b>8 to 12</b>	<b>517</b>	<b>353</b>	<b>68</b>
<b>Harry Camsell</b>	<b>15.85</b>	<b>6.7</b>	<b>2</b>	<b>2.74</b>	<b>K to 3</b>	<b>374</b>	<b>211</b>	<b>56</b>
<b>Princess Alexandra</b>	<b>8.4</b>	<b>2.5</b>	<b>2</b>	<b>2.12</b>	<b>4 to 7</b>	<b>362</b>	<b>283</b>	<b>78</b>
<b>Francophone</b>	<b>12</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>K to 4</b>	<b>–</b>	<b>–</b>	

NOTES:

– = indicates data unavailable

K = kindergarten

1 Full-time equivalent totals for the schools within the Yellowknife District 1 will not add to the total for the District as the data includes additional staffing positions

2 Staffing data is for the 2002–2003 school year; the remainder of the data is for April 2004

3 Yellowknife District 1 and Hay River data are for 2003-04, Yellowknife Catholic schools data are for 1999-2000

4 Enrollment data is full-time equivalents, e.g., two children attending kindergarten are counted as one full-time student

5 Exclusive of private schools

6 Enterprise children go to school in Hay River

GNWT Education, Culture and Employment (ECE) typically starts planning for new space when a school reaches a capacity of about 85%

SOURCE: GNWT ECE (2002, 2004)



## 5 TRADITIONAL CULTURE

### 5.1 Introduction

In common with all cultures, the Dene culture includes knowledge, skills, disciplines, beliefs and values. Of these, beliefs and values are the most important, because they inform what life is about and how it is to be lived. Knowledge, skills and disciplines make it possible for individuals to act on their beliefs and values, to be themselves and live a culturally determined good life.

Traditional culture is of prime importance to many Aboriginal people because it is their:

- principal source of pride, worth, distinctiveness and identity
- basis for harvesting the benefits of and meeting the challenges of surviving on the land they respect and love
- a way of dealing with prejudice and discrimination sometimes shown by those from other cultures

Indicator data showing adherence to traditional beliefs and values is currently not available for the ICCs.

Indicators of culture can be seen in people's behaviour. Culture is reflected in activities that are shaped by beliefs and values, activities that make use of traditional knowledge, skills and disciplines. What people do and are able to do thus serve as indicators of their involvement in traditional culture. The following activity-based indicators are used in this section:

- involvement in traditional harvesting
- the amount of country food consumed
- the ability to speak a traditional language

In Volume 4 of the EIS, the section on historical background and political organization provides an overview of:

- the Dene culture
- contact with Euro-Canadians
- the changes induced by these many contacts over time on the Inuvialuit and Dene livelihood and culture

A result of these contacts is that some monetary income is now a necessity for Aboriginal people. Those who harvest wildlife are now active in a dual monetary and traditional in-kind economy.

Hunting and fishing, and consuming country food are discussed in the context of the dual economy, an important feature throughout most of the study area. Trapping is discussed because, by Euro-Canadian standards, it is lonely, hard and dangerous work. The trapper must have most of the same lore, skills and disciplines that were essential to the survival of forebearers in the precontact millennia. Language retention is taken as an indicator of cultural retention because appreciation of traditional, deeper, spiritual relationships can best be comprehended in traditional language terms.

The data presented in this section is from published statistical compilations. The data presented for each community or region can vary from study to study, given the different scopes and methods utilized. Additional information will be documented in ongoing traditional knowledge studies.

## 5.2 Participation in Traditional Harvesting

Table 5-1 indicates that in 2002, about 30% of the adult population in Hay River hunted or fished for subsistence or recreation, much less than the 51% in the Northwest Territories Aboriginal communities.

**Table 5-1: Adults Who Hunted or Fished for the Industrial and Commercial Centres in the Northwest Territories**

Location	1993 (%)	1998 (%)	2002 (%)
NWT	18	42	41
NWT Aboriginal communities <sup>1</sup>	42	48	51
Yellowknife	8	40	39
<b>Hay River</b>	<b>10</b>	<b>41</b>	<b>30</b>
Enterprise	–	–	–
NOTES: – = data not available 1 All study area communities in the Northwest Territories, except Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and Enterprise Percentage of population, aged 15 years and older			
SOURCE: GNWT Bureau of Statistics (1994, 1999, 2002a)			

### 5.3 Consumption of Country Foods

Table 5-2 shows that the proportion of the population reporting that half or more of the food they consumed came from the land was 18% in Hay River in 2002, which is substantially less than the Northwest Territories Aboriginal communities percentage of 70%.

**Table 5-2: Country Food Consumption for the Industrial and Commercial Centres in the Northwest Territories**

Location	Households Consuming Country Food <sup>1</sup>		
	1993 (%)	1998 (%)	2002 (%)
NWT	29	30	33
NWT Aboriginal communities <sup>2</sup>	73	68	70
Yellowknife	10	11	16
<b>Hay River</b>	<b>29</b>	<b>20</b>	<b>18</b>
Enterprise	–	–	–
NOTES: – = data not available 1 Half or more of food consumed is country food 2 All study area communities in the Northwest Territories, except Inuvik, Norman Wells, Fort Simpson, Yellowknife, Hay River and Enterprise			
SOURCE: GNWT Bureau of Statistics (1994, 1999, 2002a)			

### 5.4 Trapping

Virtually all trappers in the Northwest Territories are of Aboriginal descent. Although Yellowknife and Hay River are essentially nontraditional communities, both have sizable Aboriginal populations. Table 5-3 shows that the percentages of adult males who were trappers in Hay River declined from 10% in 1987 to 3% in 1993, although the percentage increased slightly in 2002.

The average fur sale income per trapper in Hay River declined from \$1,336 in 1987 to \$295 in 1993, though there was an increase in 2002, accompanied by a modest increase in the percentage of trappers.

**Table 5-3: Active Trappers and Average Income for the Industrial and Commercial Centres in the Northwest Territories**

Location	Trappers				Average Annual Income <sup>1</sup>			
	1987 (%)	1993 (%)	1999 (%)	2002 (%)	1987 (\$)	1993 (\$)	1999 (\$)	2002 (\$)
NWT Aboriginal communities <sup>2</sup>	47	18	18	14	2,514	672	919	991
Yellowknife	3	1	1	0.4	1,856	162	849	650
<b>Hay River</b>	<b>10</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>1,336</b>	<b>295</b>	<b>763</b>	<b>881</b>
Enterprise	–	–	–	–	–	–	–	–

NOTES:  
 – = data not available  
 1 Income not adjusted for inflation  
 2 All study area communities in the Northwest Territories except for Yellowknife and Hay River

SOURCE: GNWT RWED (1987, 1993, 1999, 2002)

## 5.5 Aboriginal Language

Available data shows that the use of an Aboriginal language is declining in the Northwest Territories. This pattern is evident in Hay River. Table 5-4 shows that in Hay River, 29% of Aboriginal residents spoke an Aboriginal language in 1999, down from 34% in 1989.

**Table 5-4: Aboriginal Language Speakers for the Industrial and Commercial Centres in the Northwest Territories**

Location	1989 (%)	1994 (%)	1999 (%)
NWT	56	50	45
Yellowknife	37	34	22
<b>Hay River</b>	<b>34</b>	<b>30</b>	<b>29</b>
Enterprise	–	–	–

NOTES:  
 – = data not available  
 Percentage of Aboriginal people, aged 15 years and older

SOURCE: GNWT Bureau of Statistics (2001b)

## 6 NONTRADITIONAL LAND AND RESOURCE USE

The community of Hay River is located approximately 240 km from the pipeline route. Because it is outside of the 30-km regional study area, no baseline information specific to the Hay River area was collected.



## 7 HERITAGE RESOURCES

Baseline data was not included in the EIS for Hay River as it is located in an area that will not have previously undeveloped lands that will be directly affected by the project.



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## GLOSSARY

<b>Aboriginal</b>	Any Indian, Inuit or Métis person who was born in the Northwest Territories or who is descended from an Aboriginal person born in the Northwest Territories.
<b>abandonment</b>	The act of permanently stopping operations, discontinuing service, removing facilities and restoring land to a productive state.
<b>Aboriginal community</b>	A community in which the majority of residents are Aboriginal.
<b>anchor field</b>	The three natural-gas fields, Taglu, Parsons Lake and Niglintgak, whose production will provide the initial volume of gas shipped in the Mackenzie Valley Pipeline.
<b>archaeological site</b>	A site where an archaeological artifact is found.
<b>artifact</b>	Any tangible evidence of human activity that is more than 50 years old, in respect of which an unbroken chain of possession cannot be demonstrated.
<b>baseline conditions</b>	Existing conditions in the communities and ethnic regions of the area before any project effects are experienced.
<b>baseline information</b>	The current state of the environment or environmental setting for a particular element. This information will help to determine potential environmental effects of a project by providing an environmental reference point for the element, with which to compare future environmental conditions and potential project effects.
<b>BDR</b>	The abbreviation for Beaufort Delta Region.
<b>biophysical environment</b>	The components of the earth including: <ul style="list-style-type: none"><li>• land, water and air, including all layers of the atmosphere</li><li>• all organic and inorganic matter and living organisms</li><li>• the interacting natural systems that include components referred to in the previous bullets</li></ul>

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<b>borrow site</b>	An area that could be excavated to provide material, such as gravel or sand, to be used as fill elsewhere.
<b>CBC</b>	The abbreviation for Canadian Broadcasting Corporation.
<b>commercial harvest</b>	Occupied with or engaged with harvest intended for commerce, i.e., buying and selling a product, including transportation from place to place.
<b>Commissioner's lands</b>	Federal lands administered by the territorial government.
<b>compressor station</b>	A facility containing equipment that is used to increase pressure to compress natural gas for transportation.
<b>country food</b>	Food traditionally harvested and eaten by local Aboriginal residents.
<b>critical habitat</b>	The habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species, according to the Species at Risk Act.
<b>DCR</b>	The abbreviation for Deh Cho Region.
<b>decommissioning</b>	The act of taking a processing plant or facility out of service and isolating equipment, to prepare for routine maintenance work, suspending or abandoning.
<b>devolution</b>	Ongoing negotiations between the Government of Canada, the GNWT and the Aboriginal Summit that will transfer the current INAC control over land, water and resources to Aboriginal settlement area governments.
<b>DME</b>	The abbreviation for distance measuring equipment.
<b>ECE</b>	The abbreviation for Education, Culture and Employment (GNWT Department).
<b>EIS</b>	The abbreviation for environmental impact statement.
<b>employment rate</b>	Percentage of population, aged 15 years and older employed during the week before the survey.

<b>environmental effect</b>	<p>For a project, any change that the project might cause in the environment, including any change it might cause to a listed wildlife species, its critical habitat or the residences of individuals of that species, as defined in the Species at Risk Act. Also, any effect of any project-induced change on:</p> <ul style="list-style-type: none"><li>• health and socio-economic conditions</li><li>• physical and cultural heritage</li><li>• the current use of lands and resources for traditional purposes by aboriginal people</li><li>• any structure, site or thing that is of historical, archaeological, palaeontological or architectural significance</li></ul> <p>Also, any change to the project that might be caused by the environment.</p>
<b>environmentally protected areas</b>	<p>Areas with special designations that, through legislation or other means, are protected in some form or are given special status.</p>
<b>environmentally sensitive area</b>	<p>An area designated in regional or local land use plans, or by a local, regional, provincial or federal government body as being sensitive to disturbance, or identified by an applicant as being sensitive for some reason.</p>
<b>facilities</b>	<p>Structures of the gathering and gas pipeline systems, including compressor and pump stations, block valves, pigging facilities, heater stations and meter stations.</p>
<b>FAS/FAE</b>	<p>The abbreviation for foetal alcohol syndrome/effects.</p>
<b>federal Crown lands</b>	<p>Federal lands administered by INAC (also referred to as territorial lands in the Territorial Lands Act)</p>
<b>five-year mobility status (migration)</b>	<p>The relationship between a person's usual place of residence on May 14, 1996 compared to the previous five years.</p>
<b>FSS</b>	<p>The abbreviation for flight service station.</p>

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<b>gas pipeline</b>	The pipeline that transports compressed natural gas from the Inuvik area facility to the southern terminus near the Northwest Territories–Alberta boundary.
<b>gathering pipelines</b>	Four pipelines, also known as laterals, that transport natural gas and NGLs from the anchor fields to the Inuvik area facility. These include the Niglintgak lateral, Taglu lateral, Parsons Lake lateral and Storm Hills lateral.
<b>gathering system</b>	A system of pipelines, compressor stations and other related facilities that gather natural gas and associated NGLs from the anchor fields and transport it to the gas pipeline system located at the Inuvik area facility.
<b>GNWT</b>	The abbreviation for Government of the Northwest Territories.
<b>granular resources</b>	Sand, gravel, clay, quarry materials and silt.
<b>GSA</b>	The abbreviation for Gwich'in Settlement Area.
<b>heavy drinking</b>	Consuming five or more drinks at one sitting.
<b>heritage resources</b>	Locations where events took place in the past, or all of the objects that they contain, including any contextual information that may be associated with them that will aid in their interpretation, including natural specimens and documents or verbal accounts.
<b>heritage resources</b>	Cultural, historic, archaeological and palaeontological resources are collectively known as heritage resources and can include pre-contact and post-contact features.
<b>historic archaeological resources</b>	Sites, artifacts, structures and documents that relate to the influx of Euro-Canadians in the region, and date to the last 250 years.
<b>honey bag</b>	A plastic liner used in non-flush toilets which is removed when full.
<b>HSS</b>	The abbreviation for Health and Social Services (GNWT Department).
<b>human health</b>	A state of complete physical, mental and social well-being, and the ability to adapt to the stresses of daily life. It is not merely the absence of disease or infirmity.

<b>human health assessment</b>	Considers the effect of hazardous substances, environmental factors and exposure conditions on local and regional populations. It might consist of qualitative and quantitative assessments.
<b>ICC</b>	The abbreviation for industrial and commercial centre.
<b>ICD-9 code</b>	The abbreviation for International Classification of Diseases, Version 9.
<b>ILS</b>	The abbreviation for instrument landing system.
<b>infrastructure</b>	Basic facilities, such as transportation, communications, power supplies and buildings, which enable an organization, project or community to function.
<b>Inuvik area facility</b>	The gas and NGL processing facility for the Mackenzie Gas Project to be located near Inuvik.
<b>ISR</b>	The abbreviation for Inuvialuit Settlement Region.
<b>JRP</b>	The abbreviation for Joint Review Panel.
<b>lateral</b>	A pipe that branches away from the central and primary part of the system.
<b>limiting factor</b>	Anything that has a measurable controlling effect on a species' growth or expansion, or on a biophysical element's continued capability to support its ecosystem.
<b>local study area</b>	A 1-km-wide buffer or corridor around each of the three lease areas, gathering system right-of-way, facility infrastructure sites, pipeline right-of-way and borrow sites.
<b>LSA</b>	The abbreviation for local study area.
<b>MACA</b>	The abbreviation for Municipal and Community Affairs.
<b>major repairs (housing)</b>	Refers to such conditions as defective plumbing or electrical wiring, or structural repairs to walls, floors or ceilings.
<b>Métis</b>	A person with a mixture of Aboriginal and non-Aboriginal ancestry.
<b>migrants</b>	Individuals moving to a different community.

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<b>migratory bird</b>	Any migratory bird as referred to in the Migratory Birds Convention Act, including the sperm, eggs, embryos, tissue cultures and parts of the bird.
<b>minor repairs (housing)</b>	Refers to such conditions as missing or loose floor tiles, brick or shingles, or to defective steps, railing or siding.
<b>mitigation</b>	The elimination, reduction, or control of a project's adverse environmental effects, including restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or other means.
<b>monitoring</b>	Resolving specific outstanding environmental issues, observing the potential environmental effects of a project, assessing the effectiveness of mitigation measures undertaken, identifying unexpected environmental issues and determining the action required based on the result of these activities.
<b>municipal lands</b>	Lands administered by the territorial government or the municipality.
<b>MVEIRB</b>	The abbreviation for Mackenzie Valley Environmental Impact Review Board.
<b>N/A</b>	The abbreviation for not applicable.
<b>NDB</b>	The abbreviation for nondirectional beacon.
<b>NGL</b>	The abbreviation for natural gas liquid.
<b>NGL pipeline</b>	The pipeline connecting the Inuvik area facility with the Enbridge Pipeline facilities at Norman Wells.
<b>NGO</b>	The abbreviation for nongovernmental organization.
<b>NGTL</b>	The abbreviation for NOVA Gas Transmission Limited.
<b>NGTL interconnect facility</b>	The southernmost point of the gas pipeline where it connects either directly with the natural gas pipeline system in northwestern Alberta or to a third-party extension that subsequently connects to the existing system.

<b>Niglintgak</b>	The anchor field to be developed by Shell. The field includes three well pads, one gas conditioning facility, flow lines and supporting infrastructure. The gas conditioning facility might be barge or land based.
<b>Niglintgak lateral</b>	The gathering pipeline connecting the Niglintgak gas conditioning facility to a connection point on the Taglu lateral at the outlet of the Taglu gas conditioning facility.
<b>nonrenewable resources</b>	Resources, such as fossil fuels (oil, gas, coal) and minerals that occur naturally but cannot be replaced once exploited.
<b>nonresident</b>	An individual who resides outside the Northwest Territories.
<b>nontraditional land use</b>	Existing land and resource uses for nontraditional users, including residents and nonresidents within the study area.
<b>nontraditional resource harvesting</b>	Includes hunting, fishing and trapping pursued by non-Aboriginal residents. May be for domestic, sport or commercial purposes.
<b>NTCL</b>	The abbreviation for Northern Transportation Company Limited.
<b>NWT</b>	The abbreviation for Northwest Territories.
<b>Operations Phase</b>	The phase of a project during which the pipeline and associated facilities are operated.
<b>palaeontological sites</b>	Sites bearing evidence of multi-cellular invertebrate, vertebrate faunal remains and plant materials that have been fossilized or otherwise preserved.
<b>Parsons Lake</b>	The anchor field to be developed by ConocoPhillips and ExxonMobil. Initially, the field will consist of a north pad for the well sites and gas conditioning facility. A second well pad will be developed five to 10 years after the north pad.
<b>Parsons Lake lateral</b>	The gathering pipeline connecting the Parsons Lake gas conditioning facility to a connection point at the Storm Hills pigging facility.
<b>participation rate</b>	Percentage of population, aged 15 years and older in the labour force.

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<b>physical infrastructure</b>	All of the physical facilities, roads, barge landings, airstrips and other infrastructure that may require maintenance or repair, or which may have a shortened lifespan as a result of project-related activities.
<b>pipeline</b>	A line used for transmitting oil, gas or any other commodity and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123 of the National Energy Board Act.
<b>pipeline corridor</b>	The 1 km-wide area that generally centres on the combined right-of-way for the NGL and gas pipelines, from the Inuvik area facility to the southern terminus.
<b>potential labour supply</b>	People of working age who are unemployed and those not participating in the labour force who do want a job, less those who, because of disability, age, illiteracy, or lack of education, skills or training could be considered unemployable, according to the GNWT Bureau of Statistics definition.
<b>prehistoric archaeological resources</b>	Archaeological sites, objects and affiliated materials that represent occupation by Aboriginal peoples before the arrival of European goods, people and the historic records that characterize their culture (in North America).
<b>private lands</b>	Lands administered by the land administration within the settlement region.
<b>production area</b>	The area that encompasses all project components located north of the Inuvik area facility, including Niglintgak, Taglu and Parsons Lake, the gathering pipelines, facilities, infrastructure, and the 1 km-wide area surrounding each of these project components.
<b>project proponents</b>	The five organizations (Imperial, the APG, ConocoPhillips, Shell and ExxonMobil) that are undertaking the Mackenzie Gas Project.
<b>project, the</b>	The abbreviation for the Mackenzie Gas Project.

<b>project-specific effect</b>	An effect caused by the project. Such effects are sometimes referred to as direct effects as they only include the project's contribution to the effect (as opposed to cumulative effects, in which case other projects would contribute to the effect).
<b>property crime</b>	Breaking and entering, theft of motor vehicles, theft over \$5,000, theft \$5,000 and under, possession of stolen goods, and fraud.
<b>provincial Crown lands</b>	Lands administered by the Alberta Public Lands Administration.
<b>RCMP</b>	The abbreviation for Royal Canadian Mounted Police.
<b>reclamation</b>	The process of re-establishing a disturbed site to a former or other productive use, not necessarily to the same condition that existed before disturbance. The land capability might be at a level different, i.e., lower or higher, than that which existed prior to the disturbance, depending on the goal of the process. Reclamation includes the management of a contaminated site and revegetation where necessary. Reclamation is not considered complete until the goals for reclamation have been achieved.
<b>recovery strategy</b>	A strategy for the recovery of a listed extirpated, endangered or threatened species prepared by the competent minister (as defined under the Species at Risk Act). If the recovery of the listed species is feasible, the recovery strategy must address the threats to the survival of the species identified by the Committee for the Status of Endangered Wildlife in Canada, including any loss of habitat. The recovery strategy and any amendments will be included in the public registry established under the Species at Risk Act.
<b>regional study area</b>	A 15-km-wide buffer around the three anchor fields, on either side of the gathering system right-of-way and on either side of the pipeline right-of-way.
<b>regular maintenance (housing)</b>	Refers to such conditions as requiring painting or furnace cleaning.
<b>resident</b>	A Canadian citizen or landed immigrant who has been living in the Northwest Territories for at least two years.

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<b>residual effects</b>	Environmental or socio-economic effects that remain after mitigation. Effects that are present after mitigation is applied.
<b>right-of-way</b>	The strip of land a company has acquired, for which it has obtained the rights to construct and operate a pipeline.
<b>RSA</b>	The abbreviation for regional study area.
<b>RWED</b>	The abbreviation for Resources, Wildlife and Economic Development (GNWT Department).
<b>scrip</b>	A document given by the Government of Canada to Métis who applied, promising either land or money, usually 140 acres or \$140, but increased to 240 acres or \$240 after 1885.
<b>SEIA</b>	The abbreviation for socio-economic impact assessment.
<b>social infrastructure</b>	Health, social wellness and education services that may require enhancement or expansion as a result of project-related activities.
<b>socio-economic effect</b>	For a project, any effect on a social or economic element, including direct effects as well as effects resulting from a change in the environment.
<b>species at risk</b>	An extirpated, endangered or threatened species or a species of special concern, as defined in the Species at Risk Act.
<b>species of special status</b>	Species listed under provincial jurisdiction or of recognized local importance because they are vulnerable, threatened, endangered or extirpated.
<b>SSA</b>	The abbreviation for Sahtu Settlement Area.
<b>STI</b>	The abbreviation for sexually transmitted infection.
<b>Storm Hills lateral</b>	The gathering pipeline connecting the Storm Hills pigging facility to a connection point at the inlet of the Inuvik area facility.
<b>study area</b>	The area within the spatial boundaries of the scope of the environmental and socio-economic effects assessment.

<b>subsistence harvest</b>	The minimum harvest necessary to provide food to support families living within the communities.
<b>Taglu</b>	The anchor field to be developed by Imperial Oil Resources Limited. It consists of one site, which will include the drill sites, gas conditioning facility, flow lines and supporting infrastructure.
<b>Taglu lateral</b>	The gathering pipeline connecting the Taglu gas conditioning facility to a connection point at the Storm Hills pigging facility.
<b>unemployment rate</b>	Percentage of the labour force that was unemployed during the week before the survey.
<b>valued component</b>	Characteristic or features that represent important environmental or socio-economic conditions identified by assessment specialists, communities or stakeholders.
<b>VHF</b>	The abbreviation for very high frequency.
<b>violent crimes</b>	Homicide, attempted murder, sexual assault, nonsexual assault, other sexual offences, abduction and robbery.
<b>visual resources</b>	Land, water, vegetation, animals and structures that are visible on the land.
<b>waterbody</b>	A body of water up to the high-water mark, including canals, reservoirs, oceans and wetlands, but not including sewage or waste treatment lagoons.
<b>well-being</b>	Everything that affects the experience of life, except physical and mental health, including the circumstances of physical existence, the quality of relationships and the threat of violence and crime.
<b>wellness</b>	Includes physical, emotional and mental health, and relationship well-being.

