

ANNEX XV

SOCIO-ECONOMIC BASELINE REPORT FOR THE JAY PROJECT



SOCIO-ECONOMIC BASELINE REPORT FOR THE JAY PROJECT

Prepared for: Dominion Diamond Ekati Corporation

Prepared by: Golder Associates Ltd.

September 2014

Table of Contents

1	INTRODUCTION	1-1
1.1	Overview	1-1
1.2	Purpose and Objectives	1-1
2	METHODS.....	2-1
2.1	Baseline Data Collection Methods	2-1
2.2	Spatial Boundaries	2-2
2.2.1	Socio-Economic Regional and Local Study Areas	2-2
2.2.2	Non-Traditional Land Use Regional and Local Study Areas	2-3
3	BASELINE SETTING	3-1
3.1	Population and Demographics.....	3-1
3.1.1	Population Growth and Change.....	3-1
3.1.2	Population Mobility.....	3-3
3.1.3	Aboriginal Identity and Language	3-5
3.1.4	Age, Sex, Family Structure, and Households.....	3-9
3.2	Governance and Leadership.....	3-12
3.2.1	Territorial Government.....	3-12
3.2.2	Land Claim Agreements	3-13
3.2.3	Devolution Agreement	3-15
3.3	Economy	3-17
3.3.1	Economic Performance	3-17
3.3.2	Economic Sectors	3-23
3.3.3	Economic Development.....	3-36
3.3.4	Informal Economic Activities.....	3-38
3.3.5	Government Revenue and Expenditures	3-41
3.4	Employment and Incomes	3-42
3.4.1	Labour Force Characteristics.....	3-42
3.4.2	Employment by Industry	3-44
3.4.3	Public Sector Employment.....	3-46
3.4.4	Mining Employment	3-46
3.4.5	Incomes	3-51
3.5	Education	3-54
3.5.1	Educational Attainment.....	3-54
3.5.2	Education Services and Infrastructure.....	3-58
3.5.3	Ekati Mine's Contributions to Education	3-70

3.6	Health and Well-Being	3-71
3.6.1	Physical and Mental Health	3-73
3.6.2	Mortality	3-74
3.6.3	Perceptual Well-Being	3-76
3.6.4	Substance Abuse and Gambling	3-78
3.6.5	Crime	3-83
3.6.6	Protective and Emergency Services	3-86
3.6.7	Healthcare and Social Infrastructure and Services	3-88
3.7	Physical Infrastructure.....	3-102
3.7.1	Housing.....	3-102
3.7.2	Recreational Infrastructure	3-108
3.7.3	Waste, Water, and Utilities Infrastructure	3-109
3.7.4	Transportation Infrastructure	3-113
3.7.5	Communication Infrastructure.....	3-116
3.8	Non-Traditional Land Use	3-117
3.8.1	Land Use and Management Plans	3-117
3.8.2	Parks and Protected Areas.....	3-120
3.8.3	Hunting, Fishing, and Outfitting	3-121
3.8.4	Tourism and Recreation	3-124
4	REFERENCES	4-1
5	GLOSSARY	5-1

Maps

Map 1.1-1	Location of the Jay Project.....	1-2
Map 1.1-2	Ekati Property Map.....	1-3
Map 2.2-1	Socio-Economic Local Study Area.....	2-4
Map 2.2-2	Non-Traditional Land Use Regional Study Area.....	2-5
Map 2.2-3	Non-Traditional Land Use Local Study Area	2-6
Map 3.2-1	Agreement Boundaries in Northwest Territories.....	3-16

Figures

Figure 3.1-1	Age Cohorts in Local Study Area Communities.....	3-10
Figure 3.3-1	Total Diamond Mine Expenditures by Priority Group, 1997 to 2012	3-27
Figure 3.3-2	Ekati Mine Expenditures by Priority Group, 1997 to 2012	3-28
Figure 3.4-1	Total Diamond Mining Industry Employment, Person-Years, 1997 to 2012.....	3-47
Figure 3.4-2	Employment at Ekati Mine, Employees and Contractors, Person-Years	3-48

Tables

Table 2.2-1	Socio-Economic Local Study Area Communities, Populations, and Distances From the Project.....	2-3
Table 3.1-1	Local Study Area Community Population by Aboriginal Identity, 2001 to 2011	3-2
Table 3.1-2	Population Mobility Within the Local Study Area, 2006 to 2011	3-4
Table 3.1-3	Population by Ethnic Identity, 2011.....	3-6
Table 3.1-4	Knowledge of Aboriginal Language, by Local Study Area Community	3-7
Table 3.1-5	Non-Official Languages Spoken in Local Study Area Communities, 2011.....	3-8
Table 3.1-6	Age and Gender in Local Study Area Communities, 2011	3-9
Table 3.1-7	Family and Household Structure in the Local Study Area, 2011	3-11
Table 3.1-8	Housing Ownership in the Local Study Area, 2011	3-12
Table 3.3-1	Gross Domestic Product and Economic Growth in Northwest Territories, 2007 to 2012	3-17
Table 3.3-2	Gross Domestic Product by Industry in Northwest Territories, 2007 to 2012.....	3-18
Table 3.3-3	Interprovincial and International Trade in Northwest Territories, 2007 to 2012.....	3-19
Table 3.3-4	Northwest Territories Trade Balance, by Top Northwest Territories Industry, with Top Trading Partners, 2012.....	3-20
Table 3.3-5	Cost of Living Differentials in Local Study Area Communities, 2000 to 2013 (Edmonton = 100)	3-20
Table 3.3-6	Consumer Price Index in Yellowknife (Northwest Territories) and Canada, 2007 to 2013 (2002 = 100).....	3-21
Table 3.3-7	Capital Expenditures in Canada and Territories, 2000 to 2013.....	3-22
Table 3.3-8	Public and Private Capital Investment in the Northwest Territories, 2000 to 2013	3-23
Table 3.3-9	Producing Mines in the Northwest Territories, 2012.....	3-24

Table 3.3-10	Value and Volume of Precious Mineral Production in the Northwest Territories, 1999 to 2012	3-24
Table 3.3-11	Potential Upcoming Mining Projects in the Northwest Territories	3-26
Table 3.3-12	Ekati Mine Production History	3-28
Table 3.3-13	Northern Expenditures by Category, 2013	3-29
Table 3.3-14	Average Household Expenditures in the Northwest Territories, all Households, 2012	3-31
Table 3.3-15	Oil and Gas Wells Drilled and Expenditures in the Northwest Territories, 1993 to 2012	3-33
Table 3.3-16	Northwest Territories Visitation Data, 2008/2009 to 2012/2013	3-34
Table 3.3-17	Northwest Territories Visitor Spending (Sales), 2008/2009 to 2012/2013	3-35
Table 3.3-18	Traditional Activities, Northwest Territories, 2008	3-39
Table 3.3-19	Percentage of Northwest Territories Sub-Populations that Hunt or Fish, 1983 to 2008	3-40
Table 3.3-20	Government of Northwest Territories Revenues and Expenditures, Budgetary Balance, and Net Debt	3-41
Table 3.4-1	Labour Force Characteristics in the Local Study Area, 2011	3-42
Table 3.4-2	Labour Force Participation and Unemployment in the Local Study Area, 2011	3-44
Table 3.4-3	Employment by Industry in the Local Study Area, 2011	3-45
Table 3.4-4	Employment in the Public Sector by Level of Government in the Northwest Territories, 2000 to 2012	3-46
Table 3.4-5	Employment by Priority Group, and by Priority Group and Skill Level, 2012	3-49
Table 3.4-6	Ekati Mine Employment by Community, 2013	3-50
Table 3.4-7	Employment Terminations by Type, 2013	3-51
Table 3.4-8	Incomes in the Local Study Area, 2005 to 2010	3-52
Table 3.4-9	Wages (Midpoint) for Unionized Positions, by Range and Skill Level at Ekati Mine, 2013	3-53
Table 3.4-10	Wages (Midpoint) for Non-Unionized Positions, by Range and Skill Level at Ekati Mine, 2013	3-54
Table 3.5-1	Highest Educational Attainment for the Total Population Aged 15 Years and Over in the Local Study Area Communities, 2011	3-55
Table 3.5-2	Educational Attainment for the Aboriginal Identity Population Aged 15 Years and Over for the Local Study Area Communities	3-57
Table 3.5-3	Educational Boards and the Local Study Area Communities, 2014	3-59
Table 3.5-4	Total Number of Teachers and School Administrators, Local Study Area Communities, 2014	3-59
Table 3.5-5	Available Licensed Childcare Spaces, Northwest Territories, 2008 and 2010	3-61
Table 3.5-6	Kindergarten to Grade 12 Schools Within the Regional Study Area	3-63
Table 3.5-7	Total Enrollment in Northwest Territories Schools Kindergarten to Grade 12, 2003 to 2013	3-64
Table 3.5-8	Aurora Campuses and Community Learning Centres for Local Study Area Communities, 2014	3-67
Table 3.5-9	Aurora College Key Programs Areas, 2013 to 2014	3-68
Table 3.5-10	Aurora Programs, 2013 to 2014	3-69
Table 3.6-1	Perceived Physical and Mental Health Status in the Northwest Territories, Population 15 Years and Over, 2012	3-73

Table 3.6-2	Selected Mortality Statistics (Total Deaths, Injury Deaths, and Suicides) in Local Study Area Communities, 2009.....	3-75
Table 3.6-3	Perceived Well-Being in Northwest Territories, Population 15 Years and Over, 2012	3-76
Table 3.6-4	Rates of Volunteerism in Local Study Area Communities, 2008	3-77
Table 3.6-5	Rates of Traditional Language Use, Hunting and Fishing Amongst Aboriginal People in Local Study Area Communities	3-78
Table 3.6-6	Self-Reported Profile of Alcohol Use in Northwest Territories, 2009.....	3-79
Table 3.6-7	Self-Reported Profile of Cigarette Smokers in Northwest Territories, 2009	3-80
Table 3.6-8	Rate of Cigarette Smoking in Local Study Area Communities, 2009	3-81
Table 3.6-9	Self-Reported Profile of Cannabis and Other Illicit Drug Use in Northwest Territories, 2009	3-83
Table 3.6-10	Number of Adults Charged by Type of Crime, Northwest Territories and Yellowknife, 1998 to 2012.....	3-85
Table 3.6-11	Property Crime and Violent Crime Rates, 2004, 2008, and 2011	3-86
Table 3.6-12	Royal Mounted Police Officers, Local Study Area Communities, 2013.....	3-87
Table 3.6-13	Communities Served by Regional Health and Social Service Authorities	3-88
Table 3.6-14	Estimated Total Number of Employees of the Regional Health and Social Services Authorities, 2008 and 2012	3-89
Table 3.6-15	Type of Ambulance Services, Northwest Territories.....	3-92
Table 3.6-16	Government of Northwest Territories Mental Health and Addiction Programs, 2014.....	3-94
Table 3.6-17	Government of Northwest Territories Health and Wellness Programs, 2014.....	3-96
Table 3.6-18	Total Employee Turnover Rate of the Regional Health and Social Services Authorities Overseeing the Local Study Area Communities, 2008 and 2012.....	3-99
Table 3.6-19	Overview of Mental Health, Addiction, and Social Services, Northwest Territories and Local Study Area Communities, 2014	3-100
Table 3.6-20	Emergency Shelters and Support Programs, Local Study Area Communities	3-101
Table 3.7-1	Housing Sector Investment, Northwest Territories, 2005 to 2012	3-102
Table 3.7-2	Value of Building Permits, 2003 to 2012.....	3-102
Table 3.7-3	Community Core Need Income Thresholds, 2004 and 2009	3-103
Table 3.7-4	Public Housing Rent Scale by Gross Monthly Household Income in the Northwest Territories.....	3-105
Table 3.7-5	Number of Households Experiencing Housing Challenges and Core Need, Northwest Territories and Local Study Area Communities, 2009.....	3-107
Table 3.7-6	Apartment Rental Costs in Yellowknife, 2005 to 2013.....	3-108
Table 3.7-7	Recreation Facilities Available to Residents, Local Study Area Communities, 2013	3-109
Table 3.7-8	Waste Disposal Municipal Infrastructure in Local Study Area Communities, 2013.....	3-110
Table 3.7-9	Water Infrastructure, Local Study Area Communities, 2010	3-111
Table 3.7-10	Electricity Infrastructure, Local Study Area Communities, 2013.....	3-112
Table 3.7-11	Transportation Infrastructure, Local Study Area Communities, 2013.....	3-114
Table 3.7-12	Tibbitt to Contwoyto Winter Road Usage, 2006 to 2009.....	3-115
Table 3.7-13	Airport Information for the Local Study Area Communities, 2013	3-116
Table 3.7-14	Communication Infrastructure, Local Study Area Communities, 2013	3-117



Table 3.8-1	Hunting Summary for Residents of Local Study Area Communities in the Northwest Territories.....	3-121
Table 3.8-2	Summary of Hunting in Local Study Area Communities in Nunavut, 2012	3-122

Abbreviations

Abbreviation	Definition
AANDC	Aboriginal Affairs and Northern Development Canada [formerly Indian and Northern Affairs Canada]
AIDS	acquired immunodeficiency syndrome
ALBE	Adult Literacy and Basic Education
BHP	Broken Hill Proprietary Company
BHP Billiton	BHP Billiton Canada Inc. including subsidiary BHP Billiton Diamonds Inc.
CAPEX	capital expenditures
CAPP	Canadian Association of Petroleum Producers
CARE	Contributing Assistance for Repairs and Enhancements
CARS	community aerodrome radio station
CBC	Canadian Broadcast Corporation
CEGEP	General and Vocational College
CLC	Community Learning Centre
CMHC	Canada Mortgage and Housing Corporation
CPI	Consumer Price Index
DAAIR	Department of Aboriginal Affairs and Intergovernmental Relations
Diavik Mine	Diavik Diamond Mine
Dominion Diamond	Dominion Diamond Ekati Corporation
e.g.,	for example
Ekati Mine	Ekati Diamond Mine
et al.	and more than one additional author
FASD	Fetal Alcohol Spectrum Disorder
FSS	flight service station
FTE	full-time equivalent
Gahcho Kué	Gahcho Kué Project
GDP	gross domestic product
GNWT	Government of the Northwest Territories
GNWTBS	Government of Northwest Territories – Bureau of Statistics
GNWT-ECE	Government of Northwest Territories – Department of Education, Culture and Employment
GNWT-HSS	Government of Northwest Territories – Health and Social Services
GNWT-ITI	Government of Northwest Territories – Industry, Tourism and Investment
HELP	Homeownership Entry Level Program
HIV	human immunodeficiency virus
HSSA	Health and Social Services Authority
i.e.,	that is
IBA	Impact Benefit Agreement
K	kindergarten
LSA	local study area
Lutsel K'e	LKDFN community name
LKDFN	Łutselk'e Dene First Nation
MTS	Mine Training Society

Abbreviation	Definition
MVRB	Mackenzie Valley Review Board
n/a	not available or not applicable
NHS	National Household Survey
NTLU	Non-traditional Land Use
NTPC	Northwest Territories Power Corporation
NWT	Northwest Territories
NWTHC	Northwest Territories Housing Corporation
PATH	Providing Assistance for Territorial Homeownership
PMR	premature mortality rate
Project	Jay Project
RCMP	Royal Canadian Mounted Police
RSA	regional study area
SAFE	Securing Assistance for Emergencies
TCWR	Tibbitt to Contwoyto Winter Road
TFF	Territorial Formula Financing
Snap Lake Mine	Snap Lake Diamond Mine
UNV	United Nations Volunteers
VC	valued component
WO ₃	tungsten trioxide
WHO	World Health Organization
YHSSA	Yellowknife Health and Social Services Authority
YKDFN	Yellowknives Dene First Nation

Units of Measure

Unit	Definition
#	number
+	plus
±	plus or minus
%	percent
<	less than
>	greater than
\$	Canadian dollars
ft	feet
kg	kilogram
km	kilometre
km ²	square kilometre
kW	kilowatt
MW	megawatt

1 INTRODUCTION

1.1 Overview

Dominion Diamond Ekati Corporation (Dominion Diamond) is a Canadian-owned and Northwest Territories (NWT) based mining company that mines, processes, and markets Canadian diamonds from its Ekati Diamond Mine (Ekati Mine). The existing Ekati Mine is located approximately 200 kilometres (km) south of the Arctic Circle and 300 km northeast of Yellowknife, NWT (Map 1.1-1).

Dominion Diamond is proposing to develop the Jay kimberlite pipe (Jay pipe) located beneath Lac du Sauvage. The proposed Jay Project (Project) will be an extension of the Ekati Mine, which is a large, stable, and successful mining operation that has been operating for 16 years. Most of the facilities required to support the development of the Jay pipe and to process the kimberlite currently exist at the Ekati Mine. The Project is located in the southeastern portion of the Ekati claim block, approximately 25 km from the main facilities and approximately 7 km to the northeast of the Misery Pit, in the Lac de Gras watershed (Map 1.1-2).

The Project's effects on the socio-economic environment are compared against the socio-economic baseline. Baseline data and information, along with lessons learned, will help to identify mitigation and social management strategies that could be implemented to avoid or reduce potential adverse effects to the existing environment, while maximizing benefits to communities where possible.

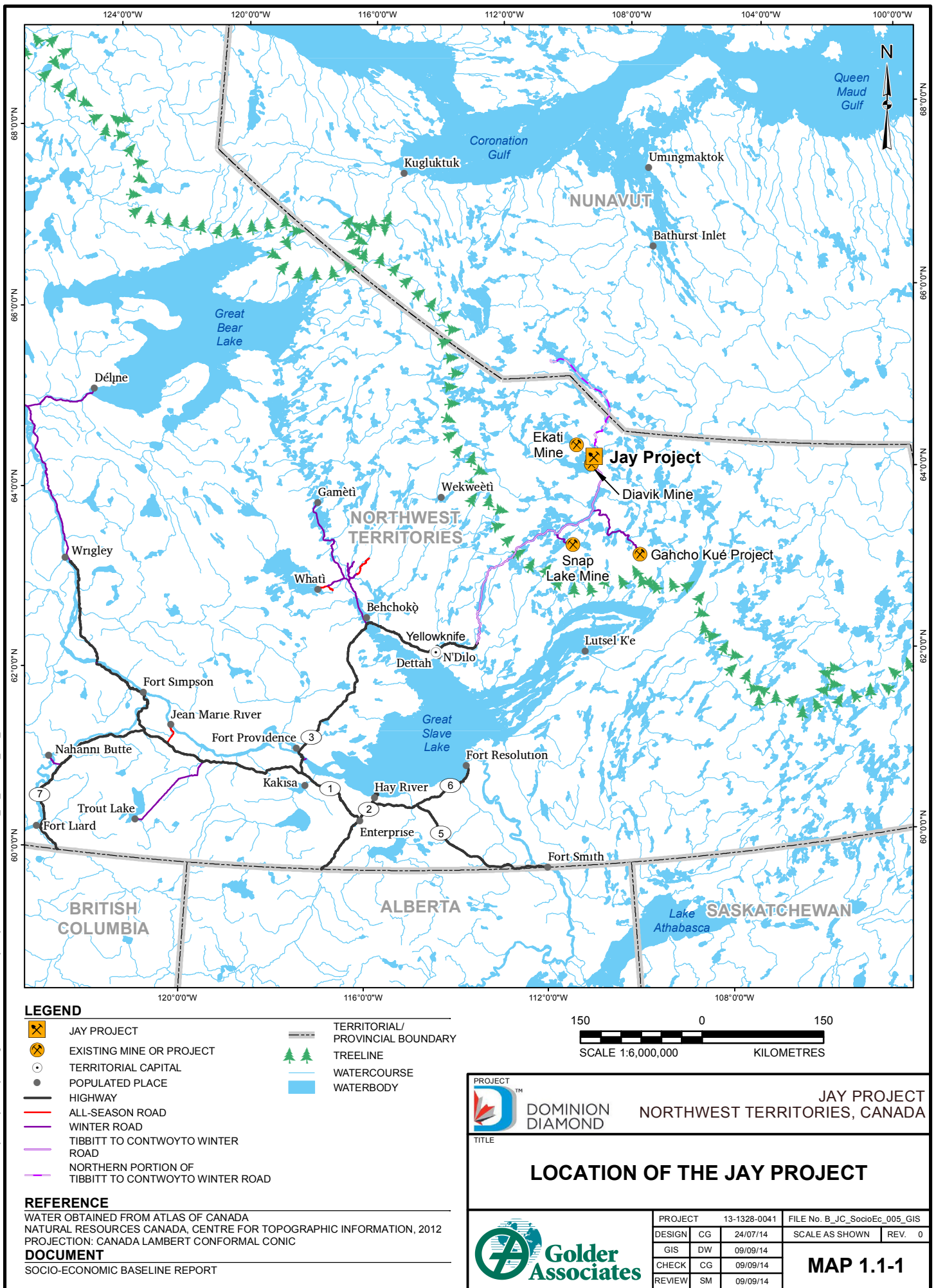
1.2 Purpose and Objectives

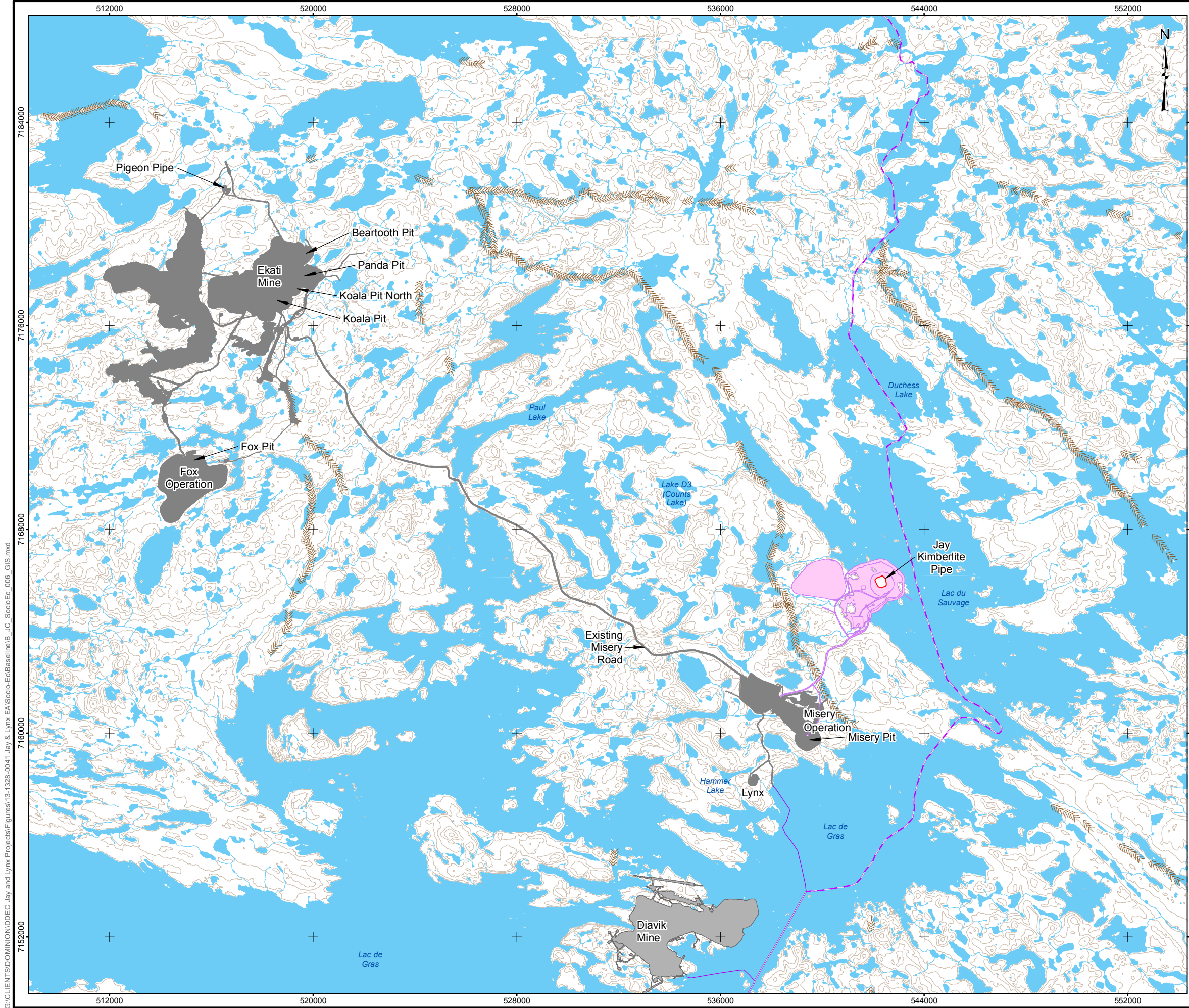
The objectives for this socio-economic baseline report include the following:

- identify valued components (VCs) for detailed description and assessment;
- describe the population of the NWT and those communities potentially affected by the Project (i.e., local study area [LSA] communities);
- describe recent trends in the socio-economic environment related to each VC;
- describe the effects of existing diamond mining activities, specifically the Ekati Mine, on communities and populations in the LSA;
- provide information on land uses that may occur near the Project; and,
- present sufficient baseline information to allow an assessment of potential direct and indirect Project effects and cumulative effects on socio-economic VCs within the LSA and the regional study area (RSA).

The socio-economic baseline considers the Mackenzie Valley Review Board (MVRB) guidelines for socio-economic assessment (MVRB 2013), the Project Terms of Reference and the community feedback that guided them, Government of the Northwest Territories (GNWT) socio-economic monitoring reports (e.g., Communities and Diamonds), past socio-economic baseline studies, and past professional experience in determining VCs and focusing the baseline discussion on relevant socio-economic features.

G:\CLIENTS\DOMINION\DEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\Socio-Ec\Baseline\B_JC_SocioEc_005_GIS.mxd





LEGEND

EKATI MINE FOOTPRINT

DIAVIK MINE FOOTPRINT

PROPOSED JAY FOOTPRINT

KIMBERLITE PIPE

WINTER ROAD

TIBBITT TO CONTWOYTO WINTER ROAD

NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD

ELEVATION CONTOUR (10 m INTERVAL)

ESKER

WATERCOURSE

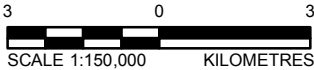
WATERBODY

REFERENCE

CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

DOCUMENT

SOCIO-ECONOMIC BASELINE REPORT



PROJECT

DOMINION DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

EKATI PROPERTY MAP

Golder Associates

PROJECT	13-1328-0041	FILE No. B_JC_SocioEc_006_GIS
DESIGN	SM	12/08/14
GIS	DW	09/09/14
CHECK	CG	09/09/14
REVIEW	SM	09/09/14

MAP 1.1-2

As an extension of an existing mining operation with a stable workforce, the Project is expected to retain employment opportunities and expenditures similar to the existing Ekati Mine. This baseline describes the current socio-economic environment and existing socio-economic impacts and benefits. Changes as a result of the Project are measured against this existing environment.

2 METHODS

2.1 Baseline Data Collection Methods

Data are readily available regarding socio-economic conditions in the NWT and its constituent communities. As such, the socio-economic baseline study relied largely on current sources that characterize the socio-economic setting (e.g., the Statistics Canada census household surveys, Communities and Diamonds reports, literature on social conditions in the NWT). Ekati Mine staff provided information about the existing effects of the Ekati Mine (e.g., fiscal and employment effects).

Interviews and email correspondence were conducted with various information holders at the Ekati Mine, including members of the procurement, human resources, and community relations teams. Data obtained regarding employee place of residence, incomes, community investment, procurement, and employment were aggregated to protect worker privacy and to respect the confidentiality of Impact Benefit Agreements (IBAs) signed with communities.

The following sources were retrieved and then summarized to characterize the baseline setting:

- Statistics Canada 2001, 2006, and 2011 census community profiles;
- Communities and Diamonds reports;
- socio-economic agreement reports for the existing NWT diamond mines;
- Government of the Northwest Territories (GNWT), Government of Canada, and Government of Nunavut statistical data and reports;
- Aboriginal Affairs and Northern Development Canada (AANDC) reports;
- school board, health authority, and Royal Canadian Mounted Police (RCMP) reports and websites;
- previous regulatory applications and commissioned reports; and,
- community and business websites.

In the interest of consistency and comparability between the NWT and Nunavut, statistical data used in the discussion of population and demographics, labour force participation, employment by industry, incomes, and educational attainment are from the *2011 Statistics Canada Census National Household Survey* (NHS) (Statistics Canada 2011a). The NHS data are available for most of the LSA communities and for the NWT as a whole. According to the NHS, the communities of Bathurst Inlet and Umingmaktok do not have permanent populations, and so no data are available for them. The community of N'Dilo is counted in the City of Yellowknife Census Subdivision, and so is not reported on separately.

The NHS census data have limitations. Although most census data can be considered representative, they are not 100 percent (%) reliable. For example, the response rate may vary among census subdivisions, and respondents may not answer the census completely. Further, when the census data are aggregated, in most cases the totals are rounded. This rounding can result in totals that exceed or fall short of 100%, or are not equal to the sum of all values in a given row or column of a table.

In addition, rounding is not consistent throughout census topics. For example, while the total population aged 15 and over in the NWT is reported as 32,455 when discussing family structure, it is reported as 31,750 when the census details labour force characteristics. When summing census subdivisions to reach a total for the NWT, different rounding at the subdivision level can result in a difference of several hundred. Although this difference is less pronounced at the community level, given that multiple subdivisions are not rolled up into one total, it does make direct comparison between census topics difficult. Rounding practices are, however, consistent within census topics. Therefore, the categories within the topic are comparable (e.g., unemployed, employed, and participation are all categories of the “labour force”).

Where topics did not directly overlap, and where more recent or reliable data were available, reporting deviated from the NHS. This is most notable in the Health and Wellbeing section of the baseline report (Section 3.6), where health statistics were sourced largely from the Government of Northwest Territories – Bureau of Statistics (GNWTBS).

2.2 Spatial Boundaries

The Project is located approximately 315 km northeast of Yellowknife in the North Slave region of the NWT.

2.2.1 Socio-Economic Regional and Local Study Areas

Project effects (e.g., economic, employment, and population effects) have the potential to extend beyond the immediate vicinity of the mine into the broader region. As a result, it is important to discuss regional baseline characteristics. The RSA for the socio-economic baseline and impact assessment is the NWT, given the potential for territorial-level Project effects.

The LSA (Map 2.2-1) for the socio-economic baseline and impact assessment is limited to those communities with the greatest potential to experience Project-related effects. The communities within the North Slave Region currently provide workers to the existing Ekati Mine, and have signed IBAs with the proponent. While not within the RSA, the hamlet of Kugluktuk has also signed an IBA with the Ekati Mine, and so is included in the discussion of LSA communities. The Inuit communities of Umingmaktok and Bathurst Inlet have been included in the LSA given their location downstream from the Project and their potential to experience continued effects, particularly those associated with land use. The communities considered in the socio-economic LSA, their populations, and their distances from the Project, are detailed in Table 2.2-1.

Table 2.2-1 Socio-Economic Local Study Area Communities, Populations, and Distances From the Project

Community	Population (2012)	Distance From Project (km)
Behchokq	1,915	350
Dettah	210	315
Fort Resolution	470	425
Gamèti	250	345
Lutsel K'e	280	250
N'Dilo	n/a	320
Wekweèti	140	195
Whati	490	385
Yellowknife	18,830	320
Kugluktuk ^(a)	1,440	425
Bathurst Inlet	n/a	270
Umingmaktok	n/a	365
Northwest Territories	40,800	n/a

Source: Statistics Canada (2011a); Google Earth (2014).

Note: Distances are approximate and rounded to the nearest 5 km.

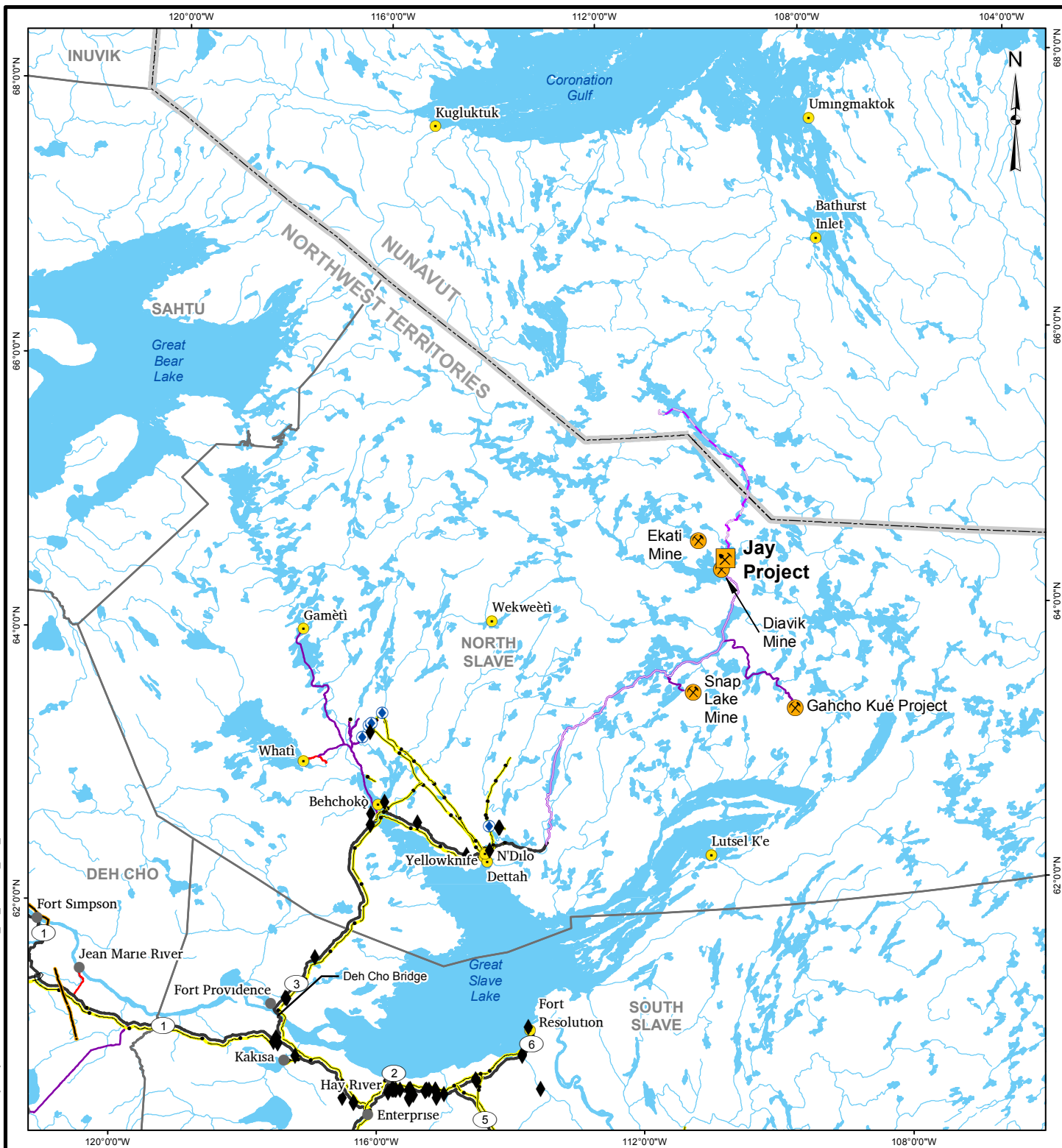
a) The hamlet of Kugluktuk, which is not within the RSA, is included in the discussion of LSA communities because it has signed an Impact Benefit Agreement with the Ekati Mine.

km = kilometre; n/a = not available; RSA = regional study area.

2.2.2 Non-Traditional Land Use Regional and Local Study Areas

The Non-Traditional Land Use (NTLU) RSA roughly corresponds to the area around the socio-economic LSA communities (Map 2.2-2). These are the areas that are most likely used by community residents for outfitting, sightseeing, fishing, and other NTLUs. Land use in these areas is not, however, expected to change given the nature of the Project (i.e., an extension of an existing mining operation) and the remote location of the mine. Therefore, while NTLU in the NTLU RSA is noted below, the baseline and effects assessment will focus more heavily on the NTLU LSA (Map 2.2-3), which is the area around the mine where effects to terrestrial resources, water, and air are more likely.

G:\CLIENTS\DOMINION\DEC Jay and Lynx Projects\Figures\13-1328-0041 Jay & Lynx EA\Socio-Eco\Baseline\B_JC_SocioEc_001_GIS.mxd



LEGEND

- JAY PROJECT
- EXISTING MINE OR PROJECT
- COMMUNITY WITHIN LSA
- COMMUNITY OUTSIDE LSA
- HIGHWAY
- ALL-SEASON ROAD
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- TERRITORIAL/PROVINCIAL BOUNDARY
- WATERCOURSE
- WATERBODY
- NWT REGION
- HYDRO LOCATION
- QUARRYING LOCATION
- PIPELINE
- TRANSMISSION LINE

REFERENCE

WATER OBTAINED FROM ATLAS OF CANADA
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
REGIONAL BOUNDARY DATA AND UTILITIES DATA OBTAINED FROM GNWT
QUARRYING LOCATIONS OBTAINED FROM MVLWB
PROJECTION: CANADA LAMBERT CONFORMAL CONIC

DOCUMENT

SOCIO-ECONOMIC BASELINE REPORT

100 0 100
SCALE 1:4,500,000 KILOMETRES



DOMINION
DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

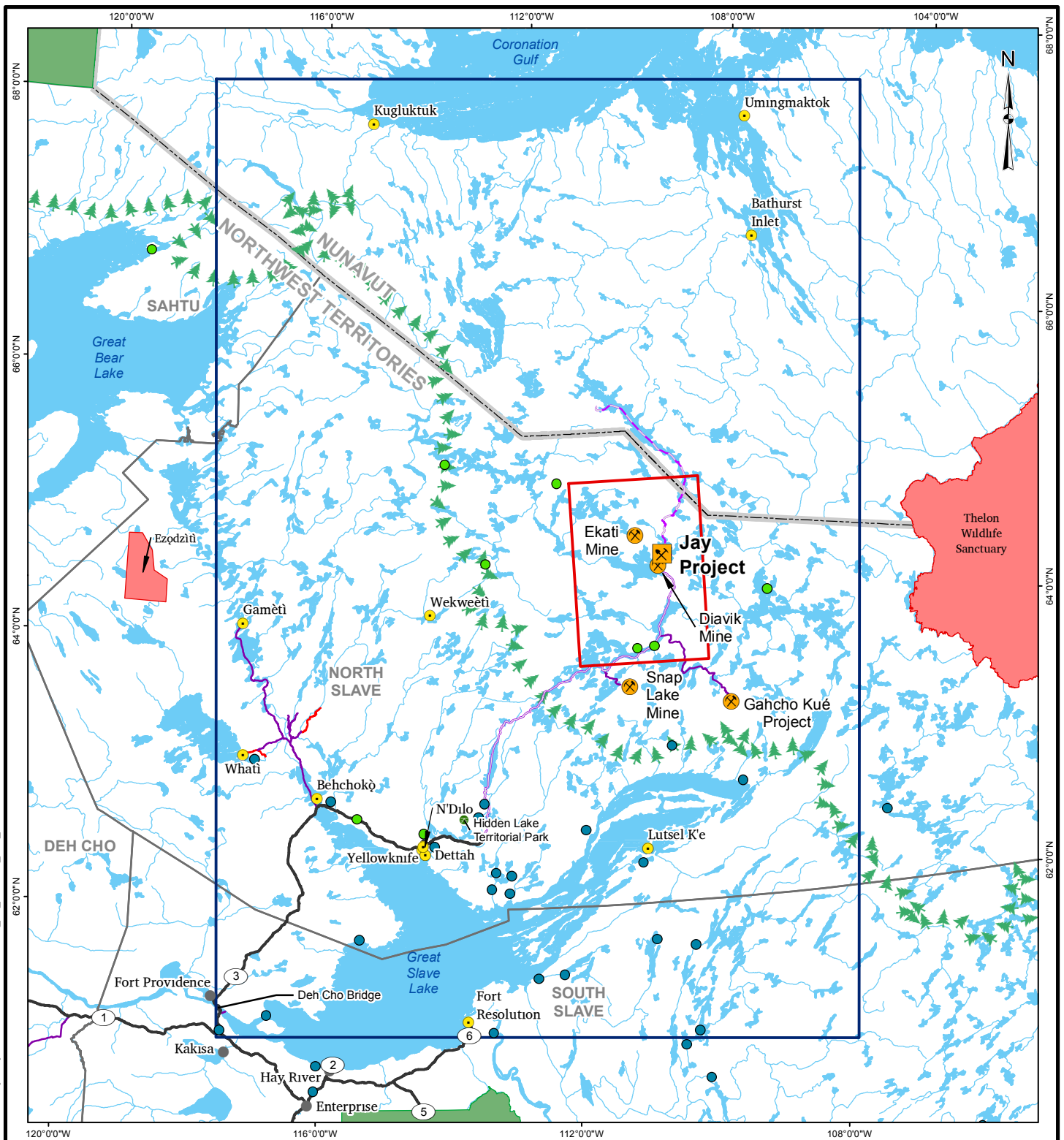
SOCIO-ECONOMIC LOCAL STUDY AREA



Golder
Associates

PROJECT	13-1328-0041	FILE No. B_JC_SocioEc_001_GIS
DESIGN	JO	28/03/14
GIS	DW	12/09/14
CHECK	CG	12/09/14
REVIEW	SM	12/09/14
SCALE AS SHOWN	REV. 0	

MAP 2.2-1



LEGEND

- | | | | |
|--|------------------------------------------------------|--|-----------------------|
| | JAY PROJECT | | WATERBODY |
| | EXISTING MINE OR PROJECT | | TREELINE |
| | HIGHWAY | | COMMUNITY WITHIN RSA |
| | ALL-SEASON ROAD | | COMMUNITY OUTSIDE RSA |
| | WINTER ROAD | | FISHING LODGE |
| | TIBBITT TO CONTWOYTO WINTER ROAD | | HUNTING LODGE |
| | NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD | | TERRITORIAL PARK |
| | TERRITORIAL/PROVINCIAL BOUNDARY | | NWT REGION |
| | WATERCOURSE | | NATIONAL PARK |
| | | | PROTECTED AREA |
| | | | LAND USE RSA |
| | | | LAND USE LSA |

REFERENCE

WATER OBTAINED FROM ATLAS OF CANADA
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
REGIONAL BOUNDARY DATA OBTAINED FROM GNWT
PROJECTION: CANADA LAMBERT CONFORMAL CONIC

DOCUMENT

SOCIO-ECONOMIC BASELINE REPORT

100 0 100
SCALE 1:4,500,000 KILOMETRES



DOMINION
DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

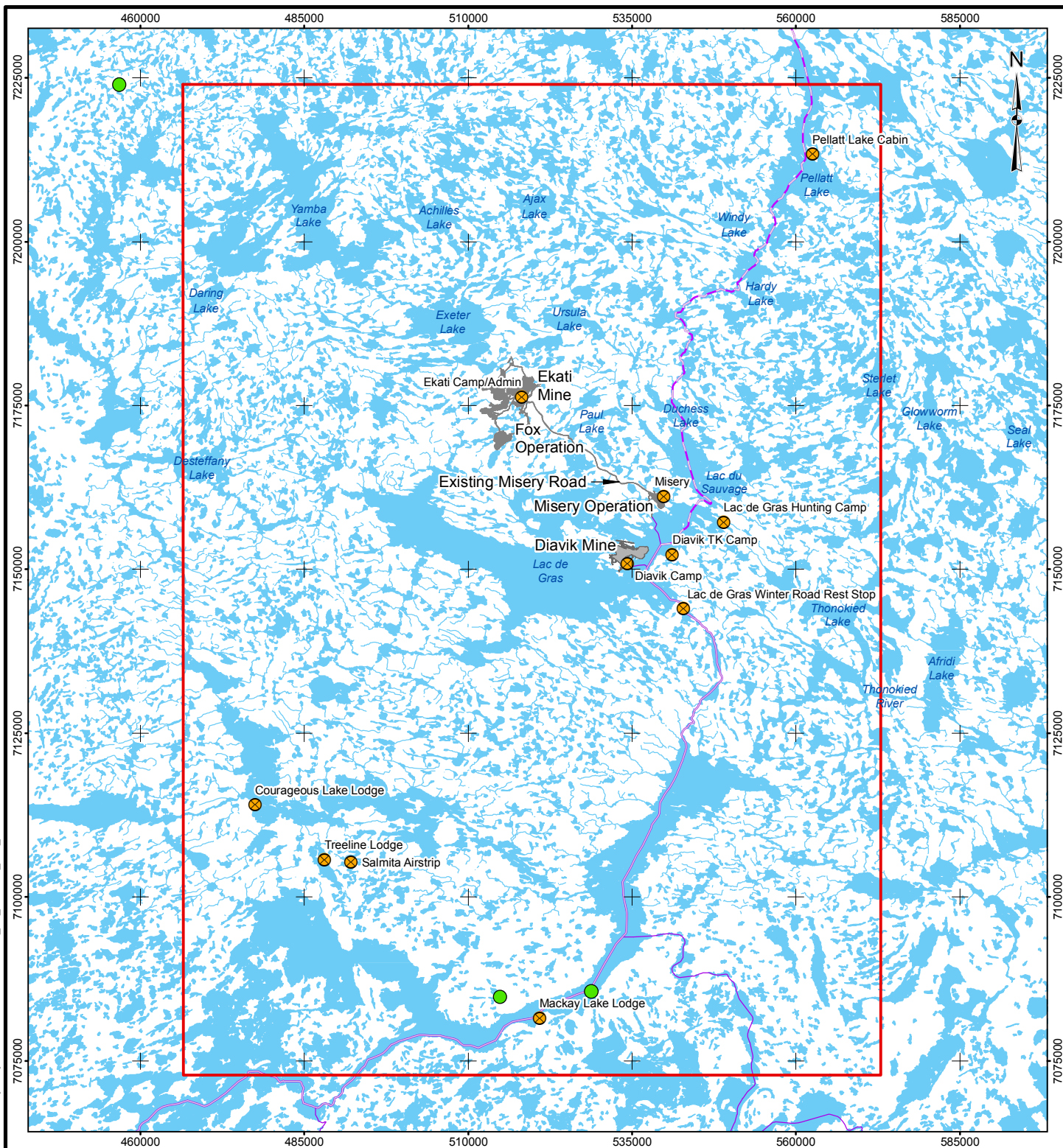
NON-TRADITIONAL LAND USE REGIONAL STUDY AREA



Golder
Associates

PROJECT	13-1328-0041	FILE No. B_JC_SocioEc_002_GIS
DESIGN	JO	28/03/14
GIS	DW	12/09/14
CHECK	CG	12/09/14
REVIEW	SM	12/09/14
SCALE AS SHOWN	REV. 0	

MAP 2.2-2



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- WATERCOURSE
- WATERBODY
- FISHING LODGE
- RECEPTOR LOCATION
- LAND USE LSA

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
 CANVEC © NATURAL RESOURCES CANADA, 2012
 NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
 DATUM: NAD83 PROJECTION: UTM ZONE 12N

DOCUMENT

SOCIO-ECONOMIC BASELINE REPORT

15 0 15
 SCALE 1:850,000 KILOMETRES

		PROJECT 13-1328-0041 FILE No. B_JC_SocioEc_003_GIS	
TITLE		SCALE AS SHOWN	
<h1>NON-TRADITIONAL LAND USE LOCAL STUDY AREA</h1>		REV. 0	
		<h1>MAP 2.2-3</h1>	

3 BASELINE SETTING

3.1 Population and Demographics

The NWT is sparsely populated by a relatively even number of Aboriginal and non-Aboriginal people. Residents of the NWT live in numerous small and remote hamlets and settlements throughout the territory, and in the larger, more accessible city of Yellowknife.

3.1.1 Population Growth and Change

Between 2001 and 2006, the NWT population grew by 5.6% (2,354 people) to 43,198 (Table 3.1-1). This population growth was, however, effectively reversed between 2006 and 2011, when a decline of 5.6% (2,398 people) brought the population to 40,800. This decline resulted in an overall small population decline of 0.1%, or 44 people, between 2001 and 2011 (Statistics Canada 2011a; GNWTBS 2014a).

Most LSA communities, while seeing population growth between 2001 and 2006, also experienced low growth or population decline between 2001 and 2011. The populations of Dettah, Wekweètì, and Whatì remained stable within plus or minus (\pm) 1% to 2%, while population declines were experienced in Fort Resolution (-17.1% [97 people]), Gamètì (-13.8% [50 people]), and Lutsel K'e (-21.8% [118 people]). Conversely, population growth occurred in Behchokò (7.3% [130 people]), Yellowknife (6.0% [1,058 people]), and, most noticeably, Kugluktuk (18.8% [103 people]) (Statistics Canada 2011a,b; GNWTBS 2014a).

While the non-Aboriginal population in the NWT overall declined slightly between 2001 and 2011, the non-Aboriginal populations of LSA communities (with the exception of Fort Resolution) grew. This growth was most noticeable in the larger communities of Behchokò, Kugluktuk, and Yellowknife.

The NWT's Aboriginal population increased slightly between 2001 and 2011. The Aboriginal population growth occurred in the three larger LSA communities: Behchokò grew by 6.8% (114 people), Kugluktuk by 17.4% (228 people), and Yellowknife by 21.6% (849 people). Approximately one-quarter of Yellowknife's total population is Aboriginal (4,780). However, the other LSA communities experienced a net decline in Aboriginal population between 2001 and 2011 (Statistics Canada 2011a,b; GNWTBS 2014a).

Between 2006 and 2011, the median (weighted) birth rate for the NWT was 16.2 births per 1,000 people, while the death rate¹ was 4.2 deaths per 1,000 people. This suggests a net positive birth:death ratio in the territory. However, the overall population in the NWT declined during this same period, suggesting net out-migration from the territory is countering the effects of territorial in-migration and natural population growth. Since the populations of Yellowknife and Behchokò are growing, this out-migration is occurring largely from smaller NWT communities. Population mobility is discussed further in Section 3.1.2.

¹ Death rate is available from 2006 to 2009. A weighted median was established for this period and assumed for the period of 2006 to 2011 (GNWTBS 2013a).

Table 3.1-1 Local Study Area Community Population by Aboriginal Identity, 2001 to 2011

Community	Population (2001) ^(a)			Population (2006) ^(a)			Population (2011) ^(b)				% Change 2001 to 2011			
	Total	Aboriginal	Non- Aboriginal	Total	Aboriginal	Non- Aboriginal	Total	Aboriginal		Non-Aboriginal		Total	Aboriginal	Non- Aboriginal
								#	%	#	%			
Behchokò	1,785	1,681	104	1,977	1,840	137	1,915	1,795	93.7	120	6.3	7.3	6.8	15.4
Dettah ^(d)	214	212	2	255	251	4	210	205	97.6	5	2.4	-1.9	n/a	n/a
Fort Resolution	567	515	52	502	463	39	470	425	90.4	45	9.6	-17.1	n/a	n/a
Gamètì ^(d)	290	288	2	291	279	12	250	240	96.0	10	4.0	-13.8	n/a	n/a
Lutsel K'e ^(d)	358	350	8	334	311	23	280	240	85.7	40	14.3	-21.8	n/a	n/a
Wekweèti ^(d)	138	131	7	142	137	5	140	130	92.9	10	7.1	1.4	n/a	n/a
Whatì ^(d)	492	466	26	479	457	22	490	455	92.9	35	7.1	-0.4	n/a	n/a
Yellowknife	17,772	3,931	13,841	19,522	4,306	15,216	18,830	4,780	25.4	14,050	74.6	6.0	21.6	1.5
Kugluktuk ^(c)	1,212	1,120	90	1,302	1,195	105	1,440	1,315	91.3	125	8.7	18.8	17.4	38.9
NWT	40,844	20,897	19,947	43,198	21,639	21,559	40,800	21,155	51.9	19,645	48.1	-0.1	1.2	-1.5

Notes: The percentage change in Aboriginal and non-Aboriginal identity populations is not reported because, in small communities, a very small population change skews the percent increase, creating a misleading picture of population growth.

For the 2001 population data, the following information is suppressed, but is included in the NWT total:

- 1) communities with a population of 50 or less;
- 2) unorganized areas; and,
- 3) details for communities with less than 100 persons.

a) Source: GNWTBS (2014a).

b) Non-Aboriginal population is derived by subtracting the total Aboriginal population from the general population. Sources: Statistics Canada (2011a,b).

c) Kugluktuk data for 2001 and 2006 are not provided by the GNWTBS, and therefore all data are from Statistics Canada (2001a,b, 2006a,b).

d) Due to the small population of non-Aboriginals in this community in 2001 and 2006, the GNWTBS suppresses data in the interest of privacy. Population numbers have been inferred, however, based on the total population minus the Aboriginal population.

n/a = not applicable; # = number; % = percent; NWT = Northwest Territories; GNWTBS = Government of Northwest Territories – Bureau of Statistics.

3.1.2 Population Mobility

Out-migration from the NWT was greater than in-migration during the late 2000s, resulting in an overall population decline between 2006 and 2011. In 2010/2011, total interprovincial in-migration to the territory was 1,990, while out-migration was 2,169, a net loss of 179 (Statistics Canada 2013a). However, the net out-migration and population loss in the NWT does not imply a lack of inter- and intra-provincial migration into and within the territory. Rather, the period of 2006 to 2011 is characterized by noticeable migration into and within the territory.

Overall, the majority of the population in LSA communities did not change community of residence between 2006 and 2011, with 74% to 96% of community populations having lived in that community for the five years before 2011 (Table 3.1-2). The same is true for NWT as a whole, where 78.7% of the population had not moved into their current city of residence in the past five years.

External (i.e., non-Canadian) migration into the territory between 2006 and 2011 was low (660 people or 1.8% of the territorial population). Over three-quarters (76.5%) of external migrants chose to settle in Yellowknife. A small number also moved to Behchokq̓ (10 people) and Kugluktuk (15 people), and none moved into the other LSA communities.

Interprovincial migration (i.e., movement between provinces or territories) into NWT between 2006 and 2011 was noticeable, accounting for 5,195 people (13.9% of the territorial population). Many of the interprovincial migrants moved to Yellowknife (3,195 people or 18.4% of the population). Overall, interprovincial migration into the smaller LSA communities was lower, with most communities seeing between 0.0% and 8.8% of their population in-migrating from other provinces or territories between 2006 and 2011.

While intra-territorial migration (i.e., moving between communities in the NWT) did not have a large effect on the population of the territory as a whole, it accounted for more in-migration into the smaller LSA communities (excluding Kugluktuk) than interprovincial migration. Most communities had 4% to 6% of their populations in-migrate from other parts of the NWT between 2006 and 2011. Even higher intra-territorial in-migration was experienced in Dettah (10.3%), Lutsel K'e (11.5%), and Whatì (10.3%).

In Yellowknife, 720 people had moved to the city between 2006 and 2011 from other locations in the NWT. While only amounting to 4.1% of the population of the city, this number is important considering the population of the smaller communities in the NWT, including the LSA communities, from which people would have moved. The trends for both Aboriginal and non-Aboriginal population growth and decline within each community (noted in Section 3.1.1) have been influenced by this pattern of migration out of smaller NWT communities into Yellowknife.

Although the small LSA communities saw in-migration of 4.1% to 11.5% of their population between 2006 and 2011, most (excluding Whatì and Kugluktuk) experienced overall population declines in the same period. Considering the positive net birth:death ratio in the territory, this decline implies that, while people moved into the communities, overall, more people moved out between 2006 and 2011. Because of the population growth of Yellowknife from intra-territorial migration, it can be reasonably assumed that many relocated to Yellowknife, a city with the amenities and job market of a larger centre.

Table 3.1-2 Population Mobility Within the Local Study Area, 2006 to 2011

Community	Total – Mobility Status 5 years ago ^(a)	Non-Movers		Movers								Migration and Population Change		
				Non-Migrants		Intra-Territorial Migrants		Interterritorial Migrants		External Migrants		Total Population Change, 2006 to 2011	Total In-Migration, 2006 to 2011	Difference
		#	%	#	%	#	%	#	%	#	%			
Behchokq	1,675	1,135	67.8	405	24.2	75	4.5	55	3.3	10	0.6	-62	140	-202
Dettah	195	145	74.4	25	12.8	20	10.3	0	0.0	0	0.0	-45	20	-65
Fort Resolution	445	300	67.4	85	19.1	30	6.7	20	4.5	0	0.0	-32	50	-85
Gamèti	245	235	95.9	0	0.0	10	4.1	10	4.1	0	0.0	-41	20	-61
Lutsel K'e	260	140	53.8	70	26.9	30	11.5	20	7.7	0	0.0	-54	50	-104
Wekweèti	130	90	69.2	25	19.2	10	7.7	0	0.0	0	0.0	-2	10	-12
Whati	435	320	73.6	50	11.5	45	10.3	20	4.6	0	0.0	11	65	-54
Yellowknife	17,380	7,585	43.6	5,375	30.9	720	4.1	3,195	18.4	505	2.9	-692	4,420	-5,112
Kugluktuk	1,250	610	48.8	485	38.8	30	2.4	110	8.8	15	1.2	138	155	-17
NWT	37,460	19,230	51.3	10,265	27.4	2,105	5.6	5,195	13.9	660	1.8	-2,398	5,855	-8,253

Source: Statistics Canada (2011a).

a) Refers to the status of a person with regard to the place of residence on the reference day, May 10, 2011, in relation to the place of residence on the same date five years earlier. Persons who have not moved are referred to as non-movers and persons who have moved from one residence to another are referred to as movers. Movers include non-migrants and migrants. Non-migrants are persons who did move but remained in the same city, town, township, village, or Indian reserve. Migrants include internal migrants who moved to a different city, town, township, village, or Indian reserve within Canada. External migrants include persons who lived outside Canada at the earlier reference date.

= number; % = percent; NWT = Northwest Territories.

Mobility in the NWT is linked to economic development and participation in the labour force. The need for a skilled labour force, particularly to serve the mining industry, has fuelled in-migration from southern provinces. Economic development and the associated capacity building of the workforce can also influence out-migration patterns. As people gain skill sets, they can obtain well-paying employment and increased wage incomes, which can provide the financial freedom to relocate to larger centres (e.g., Yellowknife) where more services and amenities are available, or to southerly locations with lower costs of living and moderate climates.

Large northern developments often rely on a southern labour force. To meet employment needs, certain developments have established southern pick-up points to transport southern workers to and from site. Workers who reside in the north and are employed with existing developments can move to southern centres while still maintaining their existing employment.

In- and out-migration trends have occurred at the Ekati Mine. The following data for 2013 provide an example (Arychuk 2014a):

- A total of 23 people moved north from other southerly locations in Canada to work at the mine.
- A total of 21 people moved from their home community to another community in the NWT².
- A total of 15 people chose to leave the NWT for southern locations³ with the pick-up point being Edmonton, while retaining employment at the mine.

3.1.3 Aboriginal Identity and Language

The NWT population is almost evenly split between Aboriginal (51.9% or 21,155 people) and non-Aboriginal (48.1% or 19,645 people). Most of the NWT Aboriginal population lives in small communities, including those in the LSA, where over 90% of each community's population identifies as Aboriginal (with the exception of Lutsel K'e, where the Aboriginal population is 85.7%). Yellowknife has experienced growth in the Aboriginal population, which now comprises a quarter (25.4% or 4,780 people) of the total population. Conversely, since 2006, the Aboriginal population of smaller communities has decreased, suggesting that, despite high birth rates, people are leaving smaller communities for Yellowknife.

Aboriginal groups in the NWT include First Nations, Inuit, and Métis. In the NWT, over one-third (37% or 15,100 people) of the population identifies as First Nations (Table 3.1-3). A further 11.7% (4,780) identify as Inuit and 6.7% (2,715) as Métis. In Yellowknife, nearly one-fifth of the population is First Nations, and there are small groups of Inuit (4.5%) and Métis (5.9%). The majority (84.9%) of the city's population cites either North American (i.e., southern Canadian and American) or European ethnic origins.

Because some respondents identify both Aboriginal and non-Aboriginal origins, these numbers total over 100%. This self-identification as both is especially true of the Métis populations.

² Many of these moves are expected to have been from small LSA communities to Yellowknife.

³ As of June 1, 2015, all pick-up points will be northern based.

Table 3.1-3 Population by Ethnic Identity, 2011

Community	Total Population	Aboriginal						Other North American Origins		European Origins		Other Origins	
		First Nations		Inuit		Métis		#	%	#	%	#	%
		#	%	#	%	#	%						
Behchokò	1,915	1,795	93.7	15	0.8	90	4.7	30	1.6	225	11.7	10	0.5
Dettah	210	205	97.6	0	0.0	10	4.8	0	0.0	35	16.7	0	0.0
Fort Resolution	470	375	79.8	0	0.0	85	18.1	10	2.1	155	33.0	0	0.0
Gamètì	250	235	94.0	0	0.0	0	0.0	10	4.0	10	4.0	0	0.0
Lutsel K'e	280	240	85.7	0	0.0	0	0.0	15	5.4	40	14.3	0	0.0
Wekweètì	140	135	96.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whatì	490	465	94.9	0	0.0	0	0.0	0	0.0	50	10.2	0	0.0
Yellowknife	18,830	3,425	18.2	845	4.5	1,105	5.9	4,070	21.6	11,925	63.3	2,565	13.6
Kugluktuk	1,440	35	2.4	1,310	91.0	10	0.7	50	3.5	215	14.9	20	1.4
NWT	40,800	15,100	37.0	4,780	11.7	2,715	6.7	5,935	14.5	18,680	45.8	3,240	7.9

Source: Statistics Canada (2011a).

Note: Many respondents selected multiple ethnic origins, so the sum of each ethnicity group does not necessarily equal the total population. Further, due to rounding practices in the 2011 National Household Survey census, sums of rows and/or columns may not add up to the total.

= number; % = percent; NWT = Northwest Territories.

Most people living in the small LSA communities identify as First Nations (80% to 98%, depending on community; Table 3.1-3). There are also small Métis populations in Behchokò (4.7% or 90 people), Dettah (4.8% or 10 people), and Fort Resolution (18.1% or 85 people). Kugluktuk has a predictably large Inuit population (91.0% or 1,310 people). Fort Resolution notably has larger Métis and non-Aboriginal populations (combined 53.2% or 250 people) than the other LSA communities, but is still predominantly First Nations (79.8% or 375 people).

The knowledge of Aboriginal languages declined greatly in the NWT and the LSA communities between 1989 and 2011 (approximately -20% to -53%; Table 3.1-4). In 1989, over half (55.6%) of the NWT's Aboriginal population had knowledge of an Aboriginal language. By 2011, less than one-third (31.0%) of the Aboriginal population had this knowledge.

Of the LSA communities, Yellowknife's Aboriginal population has the least knowledge of Aboriginal languages (16.4%). However, the actual percentage decline in knowledge of an Aboriginal language in the city was lower (20.2%) than in the other LSA communities, where the reduction in knowledge of an Aboriginal language has been approximately one-quarter to one-half since 1989. While the decline in knowledge of an Aboriginal language was less noticeable as a percentage in Yellowknife given the size of the city relative to communities, the 20.2% is a much larger reduction in terms of the actual number of Aboriginal language speakers. Despite sharp declines in knowledge of an Aboriginal language over the past two decades, most of the small LSA communities still maintain a moderate number of Aboriginal language speakers (40% to 65%). In the NWT, of those who speak a non-official language⁴, Tłìchq (22.9% or 2,335 speakers) and Slavey (15.8% or 1,615 speakers) are the most common languages spoken (Table 3.1-5). People who speak non-official languages also report speaking Dene (5.8% [595 speakers]), Cree (2.2% [225 speakers]), and Inuktitut (2.0% [200 speakers]). Other Aboriginal languages are spoken by 19.8% of the non-official language speakers, and non-Aboriginal languages account for 33.1% of the population with knowledge of a non-official language.

Table 3.1-4 Knowledge of Aboriginal Language, by Local Study Area Community

Aboriginal Language (% Aboriginals Who Speak an Aboriginal Language)							
Community	1989	1994	1999	2004	2009	2011	% Change (1989 to 2011)
Behchokò	94.3	95.5	97.9	93.1	89.1	61.5	-32.8
Dettah	94.0	88.9	77.4	82.5	59.9	41.2	-52.8
Fort Resolution	54.6	49.6	40.9	45.9	34.3	24.8	-29.8
Gamètì	100.0	100.0	98.4	98.5	93.3	65.4	-34.6
Lutsel K'e	90.7	69.3	79.5	77.9	76.9	56.0	-34.7
Wekweètì	100.0	98.8	96.8	96.1	93.6	76.1	-23.9
Whatì	99.1	97.2	98.9	96.9	92.8	68.0	-31.1
Yellowknife	36.6	33.5	21.9	25.3	18.0	16.4	-20.2
Kugluktuk	n/a	n/a	n/a	n/a	n/a	50.6	n/a
NWT	55.6	50.1	45.1	44.0	38.0	31.0	-24.6

Source: GNWTBS (2013b).

% = percent; NWT = Northwest Territories; n/a = not available.

⁴ Languages other than French or English are considered as non-official languages in Canada.

Table 3.1-5 Non-Official Languages Spoken in Local Study Area Communities, 2011

Community	Total Population Reporting Non-official Language ^(a)	Cree Languages		Dene		Tłıchǫ (Dogrib)		Slavey		Inuktitut		Other Aboriginal Languages		Non-Aboriginal Languages	
	#	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Behchokǫ	1,270	10	0.8	10	0.8	1,245	98.0	10	0.0	0	0.0	10	0.8	15	1.2
Dettah	105	0	0.0	25	23.8	90	85.7	10	0.0	0	0.0	0	0.0	0	0.0
Fort Resolution	165	0	0.0	150	90.9	0	0.0	0	0.0	0	0.0	0	0.0	0	6.1
Gamètı	195	0	0.0	0	0.0	195	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Lutsel K'e	155	0	0.0	140	90.3	10	6.5	0	0.0	0	0.0	0	0.0	0	0.0
Wekweètı	105	0	0.0	0	0.0	100	95.2	0	0.0	0	0.0	0	0.0	0	0.0
Whatı	350	0	0.0	0	0.0	340	97.1	0	0.0	0	0.0	0	0.0	0	0.0
Yellowknife	3,450	20	0.6	110	3.2	280	8.1	35	1.0	125	3.6	220	6.4	2,705	78.4
Kugluktuk	715	0	0.0	0	0.0	0	0.0	0	0.0	190	26.6	500	69.9	25	3.5
NWT	10,195	225	2.2	595	5.8	2,335	22.9	1,615	15.8	200	2.0	2,015	19.8	3,375	33.1

Source: Statistics Canada (2011a).

a) Statistics Canada defines non-official (nationally) languages as any languages other than French or English.

= number; % = percent; NWT = Northwest Territories.

In most of the small LSA communities, over 95% of the population with knowledge of a non-official language speak an Aboriginal language. In Behchokǫ, Dettah, Gamètì, Wekweètì and Whati, Tłìchǫ is the most commonly spoken non-official language, accounting for 85.7% to 100% of non-official language speakers. In Fort Resolution and Lutsel K'e, Dene is more common, being spoken by over 90.3% of non-official language speakers. In Kugluktuk, 26.6% of non-official language speakers know Inuktitut, while a further 69.9% speak an Aboriginal language other than those identified specifically in Table 3.1-5.

3.1.4 Age, Sex, Family Structure, and Households

Compared to Canada as a whole, the population of the NWT is young, with a median age of 32.3 (Canada's median age is 40.6) (Table 3.1-6). The populations of most of the small LSA communities are even younger, with median ages ranging from 24.0 to 35.4. The median ages in Lutsel K'e (32.4) and Yellowknife (32.6) are similar to that in the NWT (32.3). The population of Fort Resolution is influenced by (relative to other LSA communities) the large size of the 65 plus (+) age group, and is older than the other LSA communities overall (median age of 35.4), but still well below the national median (40.6). The largest demographic cohort in the LSA is the 15 to 24 age group (Figure 3.1-1).

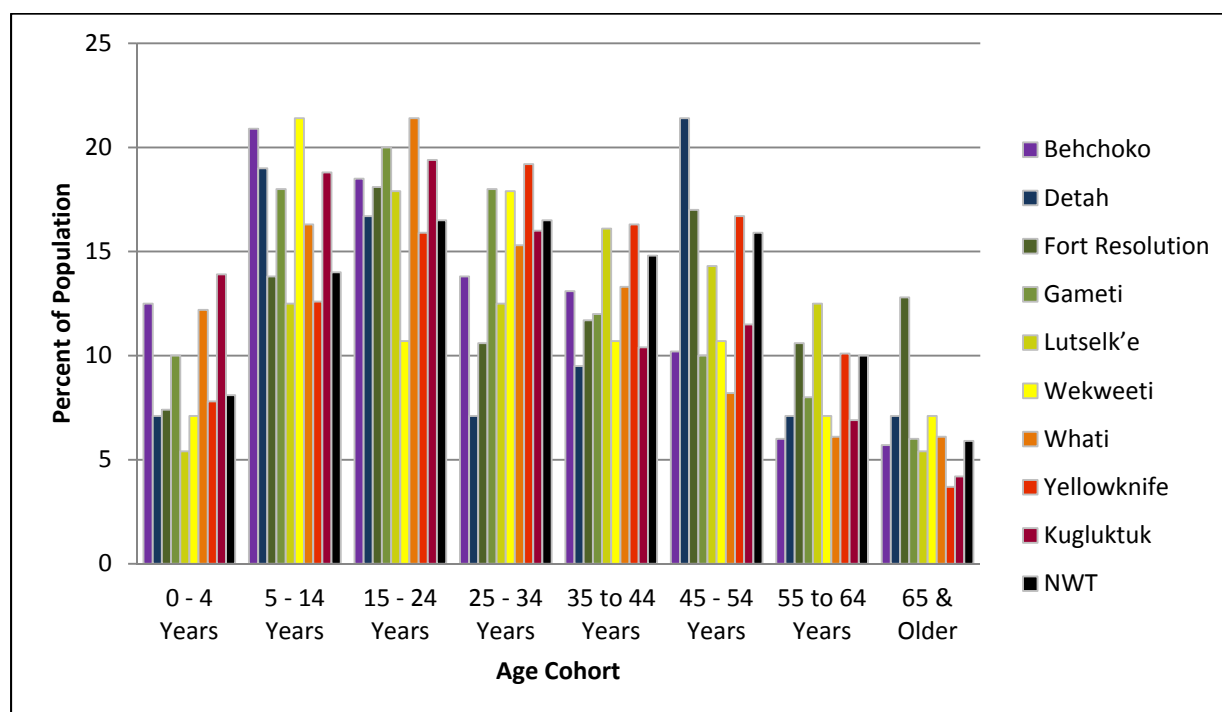
Table 3.1-6 Age and Gender in Local Study Area Communities, 2011

Community	Total Population	Median Age	Male		Female	
			#	%	#	%
Behchokǫ	1,915	24.0	980	51.2	935	48.8
Dettah	210	30.8	105	50.0	105	50.0
Fort Resolution	470	35.4	240	51.1	230	48.9
Gamètì	250	27.2	110	44.0	140	56.0
Lutsel K'e	280	32.4	155	55.4	125	44.6
Wekweètì	140	27.8	75	53.6	65	46.4
Whati	490	24.8	250	51.0	240	49.0
Yellowknife	18,830	32.6	9,440	50.1	9,390	49.9
Kugluktuk	1,440	24.3	735	51.0	705	49.0
NWT	40,800	32.3	20,635	50.6	20,165	49.4

Source: GNWTBS (2013b).

= number; % = percent; NWT = Northwest Territories.

Figure 3.1-1 Age Cohorts in Local Study Area Communities



Source: GNWTBS (2013b).
NWT = Northwest Territories.

Overall, the ratio of males to females (M:F) in the NWT is relatively equal, with 50.6% (20,635) of the population male and 49.4% (20,165) female (Table 3.1-6). This ratio is even more equal in Yellowknife (50.1% [9,440]:49.9% [9,390]) and Dettah (50.0% [105]:50.0% [105]). With the exception of Gameti, where the M:F ratio is 44.0%:56.0%, all LSA communities have a slightly higher ratio of M:F, ranging from 55.4%:44.6% (Lutsel K'e) to 51.0%:49% (Kugluktuk and Whati).

Over one-third (36.3% or 11,785 people) of the NWT population aged 15 and over is not married or in a common-law relationship (i.e., partnered) (Table 3.1-7). This number is higher in the LSA communities, where 38.7% (Dettah) to 53.3% (Lutsel K'e) of the population is un-partnered. Un-partnered people include those who are single, separated, divorced, and widowed.

The remaining two-thirds of the population are partnered, and are thus considered to be in families (Table 3.1-7). Most families in the NWT are made up of two to three people (66.6%). The same is true for Yellowknife, where 67.6% of families have two to three people in them. In the smaller LSA communities, however, families are generally larger. Families of two, three, four, and five plus persons occur in relatively even numbers in these communities.

While lone parent households are not common in the NWT (15.7% of households) or Yellowknife (16.9%), in many of the smaller LSA communities one-quarter to one-third of households have only one parent. In these communities, and in Yellowknife and the NWT as a whole, most lone parent households are headed by women (Table 3.1-7).

Table 3.1-7 Family and Household Structure in the Local Study Area, 2011

Community	Population 15 and Over	Partnered	Un-Partnered	Total Families in Private Households	Number of People per Household Family				Lone Parent Households	Female Headed Households
					Two	Three	Four	Five +		
Behchokò	1,290	625	670	455	130	110	85	125	150	110
Dettah	155	85	60	55	15	15	5	15	15	5
Fort Resolution	375	170	160	120	50	30	20	20	40	25
Gamètì	180	95	90	60	15	5	15	20	10	10
Lutsel K'e	225	105	120	80	30	20	15	10	25	15
Wekweètì	100	55	35	35	5	10	10	10	5	5
Whatì	350	170	180	120	25	30	25	35	35	25
Yellowknife	15,410	8,735	6,675	5,110	2,225	1,230	1,125	530	865	655
Kugluktuk	985	525	395	365	115	95	70	90	85	40
NWT	32,455	17,670	11,785	10,930	4,630	2,640	2,205	1,460	1,720	930

Source: Statistics Canada (2011c).

Note: The sum of "partnered" and "un-partnered" may not add up to the total population in all cases because some respondents to the census did not answer this question.

+ = plus; NWT = Northwest Territories.

Approximately one-half of houses in the NWT are occupied by their owner (Table 3.1-8). A further 47.5% are rented, while Band housing makes up the remaining 1.0% of housing. Crowding is not a major issue, with 94.8% of houses having one person per room. While the same pattern exists in Yellowknife, home ownership is generally higher in the smaller LSA communities, with fewer renters and users of Band housing. Houses with two or more people per room are more common in the small LSA communities than in Yellowknife.

Individual LSA communities have several different housing trends. In Dettah, reliance on Band housing is higher than in the NWT, while rental rates are much lower. Conversely, in Kugluktuk, over three-quarters of households rent their homes, with the remaining one-quarter being homeowners. The opposite is true in Gamètì. In Lutsel K'e, 40% of households live in their own houses, while the remaining 60% rent. Houses with two or more people per room make up one-quarter of houses in Behchokò and one-third of houses in Wekweètì.

Table 3.1-8 Housing Ownership in the Local Study Area, 2011

Community	Total Number of Private Households ^(a)	Household Tenure						Number of Persons Per Room			
		Owner		Renter		Band Housing		One Person or Fewer Per Room		More than One Person Per Room	
		#	%	#	%	#	%	#	%	#	%
Behchokò	455	230	50.5	180	39.6	45	9.9	340	74.7	115	25.3
Dettah	65	35	53.8	20	30.8	15	23.1	55	84.6	10	15.4
Fort Resolution	185	105	56.8	75	40.5	0	0.0	170	91.9	10	5.4
Gamètì	65	50	76.9	15	23.1	0	0.0	60	92.3	10	15.4
Lutsel K'e	100	40	40.0	60	60.0	0	0.0	90	90.0	10	10.0
Wekweètì	30	20	66.7	10	33.3	0	0.0	25	83.3	10	33.3
Whatì	120	60	50.0	65	54.2	0	0.0	105	87.5	20	16.7
Yellowknife	6,935	3,625	52.3	3,300	47.6	15	0.2	6,745	97.3	195	2.8
Kugluktuk	400	95	23.8	310	77.5	0	0.0	325	81.3	75	18.8
NWT	14,700	7,570	51.5	6,980	47.5	150	1.0	13,940	94.8	760	5.2

Source: Statistics Canada (2011a).

a) As indicated by the total number of households by tenure. The total number of houses reported in the data source for "number of persons per room" may vary due to rounding of the Statistics Canada data.

= number; % = percent; NWT = Northwest Territories.

3.2 Governance and Leadership

3.2.1 Territorial Government

The NWT entered the Canadian Confederation in 1870. The territory originally included all lands east of the Yukon Territory (from the Beaufort Sea to Arctic Ocean, to Hudson Bay and Northwest Passage). However, the borders were revised in 1999 with the formation of Nunavut, an Inuit land claim and the third Canadian territory.

The NWT as a territory has fewer rights than Canadian Provinces. While provinces exercise constitutional powers in their own right, the territories exercise delegated powers under the authority of the Parliament of Canada (Government of Canada Privy Council Office 2010). In particular, their jurisdiction does not include collection of taxes, royalties, and the development of natural resources. The NWT receives federal government transfers (approximately \$1.1 billion [Canadian dollars] in 2012 [Department of Finance Canada 2013]), which enables the territory to provide public and social services to its residents.

The NWT is currently administered by a Territorial Legislative Assembly that is composed of representatives from the 19 territorial constituencies. The Legislative Assembly is not organized around political parties and therefore the Premier and Speaker are elected by secret ballot by members of the legislative assembly. The territory also has one Member of Parliament who represents the NWT in the federal legislature, and one representative in the senate.

3.2.2 Land Claim Agreements

The federal and territorial governments are negotiating land, resource, and governance matters with several Aboriginal groups in the NWT. The NWT is home to the following Aboriginal peoples: Dene (Gwich'in, Sahtu, Tłı̄chǫ, Akaitcho, and Dehcho), Inuvialuit, and Métis. Treaties 8 and 11 were signed with the Dene people in 1899 and 1921, respectively. These treaties were historically used by the Government of Canada to gain jurisdiction over land and resources from Aboriginal peoples, in exchange for reserve land, harvesting rights, and other benefits (INAC 2007). The Inuvialuit were never offered a treaty, and Métis individuals who did not sign onto a treaty were offered "scrip" payments⁵.

In the 1970s, the Government of Canada began negotiating comprehensive land claims with Aboriginal groups in the NWT that addressed land and resource management issues. Key aspects of comprehensive land claims agreements are ownership of land; guaranteed participation in the management of land, water, wildlife, parks and heritage resources; financial benefits including a share of resource revenues; and measures to stimulate economic growth. Three comprehensive land claims agreements have been signed in the NWT:

- Inuvialuit Final Agreement (effective July 1984);
- Gwich'in Comprehensive Land Claim Agreement (effective December 1992); and,
- Sahtu Dene and Métis Comprehensive Land Claim (effective June 1994).

In the mid-1990s, comprehensive land claims negotiations were broadened and began to include the right to Aboriginal self-government. Along with the rights to own, manage, and benefit from land, the self-government agreements defined the legal status and powers of Aboriginal governments. They established mechanisms for how self-governments would be administered, their relationship with federal and territorial governments, and the programs and services that they would be responsible for providing to their constituents (INAC 2007).

⁵ A scrip payment is "a certificate redeemable for land or money to extinguish any Aboriginal rights to the landscape that they might hold as an indigenous culture" (Library and Archives Canada 2012).

Although each negotiation is different, examples of jurisdictions that may be negotiated as part of self-government agreements include aspects covered under comprehensive land claim agreements, education, health, language and culture, public works, transportation, and enforcement and adjudication of laws of Aboriginal governments. Aboriginal self-governments must be exercised within the existing framework of the Canadian Constitution and the Canadian Charter of Rights and Freedoms. In addition, negotiations facilitate the federal, territorial, and Aboriginal laws must work in harmony (INAC 2007). One combined comprehensive land claim and self-government agreement has been completed: the Tłıchq Agreement with the four North Slave “Dogrib Treaty 11” communities (effective August 2005).

The Salt River First Nation has signed a Treaty Settlement Agreement with the Government of Canada outlining settlement land interests (e.g., traplines, third party interests, corporation lands, land purchases, access requirements, surveys, and environmental issues). The agreement was signed in 2001 and marks entry into Treaty 8 (AANDC 2001).

Déline⁶ has also ratified a Final Self-Government Agreement and is close to completing self-government negotiations. The final step for the agreement to take effect is ratification by the federal and territorial governments, and the enactment of appropriate legislation (Trinh 2014). Other self-government negotiations underway in the NWT include the following:

- the Inuvialuit Self-Government Agreement (AANDC 2008);
- the Gwich'in Self-Government Agreement (DAAIR 2014a);
- Tulita Yamoria Community Secretariat Self-Government Negotiations⁷ (DAAIR 2014b);
- Norman Wells Land Corporation Self-Government Negotiations⁸ (DAAIR 2014c);
- Colville Lake Self-Government Negotiations⁹ (DAAIR 2014d); and,
- Fort Good Hope Self-Government Negotiations¹⁰ (DAAIR 2014e).

⁶ The Déline Self-Government Negotiations involve the Sahtu Dene and Métis of Déline Aboriginal peoples.

⁷ The Tulita Yamoria Self-Government Negotiations involve the Sahtu Dene and Métis of Tulita Aboriginal peoples.

⁸ The Norman Wells Land Corporation Self-Government Negotiations involve the Sahtu Dene and Métis of Norman Wells Aboriginal peoples. They are members of the Norman Wells Land Corporation.

⁹ The Tulita Yamoria Community Secretariat Self-Government Negotiations involve the Sahtu Dene and Métis of Colville Lake Aboriginal peoples.

¹⁰ The Fort Good Hope Self-Government Negotiations involve the Sahtu Dene and the Métis of Fort Good Hope.

The Akaitcho Dene First Nations and Tłıchǫ First Nations have overlapping interests in lands and resources. To define land use privileges within overlapping areas, the two groups have entered into the Akaitcho Tli Cho Boundary Agreement (Akaitcho Treaty 8 Tribal Corporation 2014). The Akaitcho are Treaty 8 signatories, and members reside primarily in the communities around Great Slave Lake including Fort Resolution (Deninu Kué), Łutsel K'e, N'Dilo, and Dettah (AANDC 2006). The Akaitcho are currently in an agreement-in-principle, which is the first step towards the establishment of an Akaitcho Treaty 8 Land, Resources and Self-Government Agreement. This agreement is being negotiated by members of the Akaitcho Dene First Nations (Yellowknives Dene First Nation [YKDFN], Łutselk'e Dene First Nation [LKDFN], Deninu Kué First Nations), the Government of Canada, and the GNWT (Akaitcho Treaty 8 Tribal Corporation 2014).

Similarly, the Acho Dene Koe First Nation¹¹, Northwest Territory Métis Nation¹², and the Dehcho First Nations¹³ are undertaking Land, Resources, and Self-Government Negotiations that combine land claim and self-government into a single agreement (DAAIR 2014b,f,g).

Agreement boundaries in the NWT are shown in Map 3.2-1.

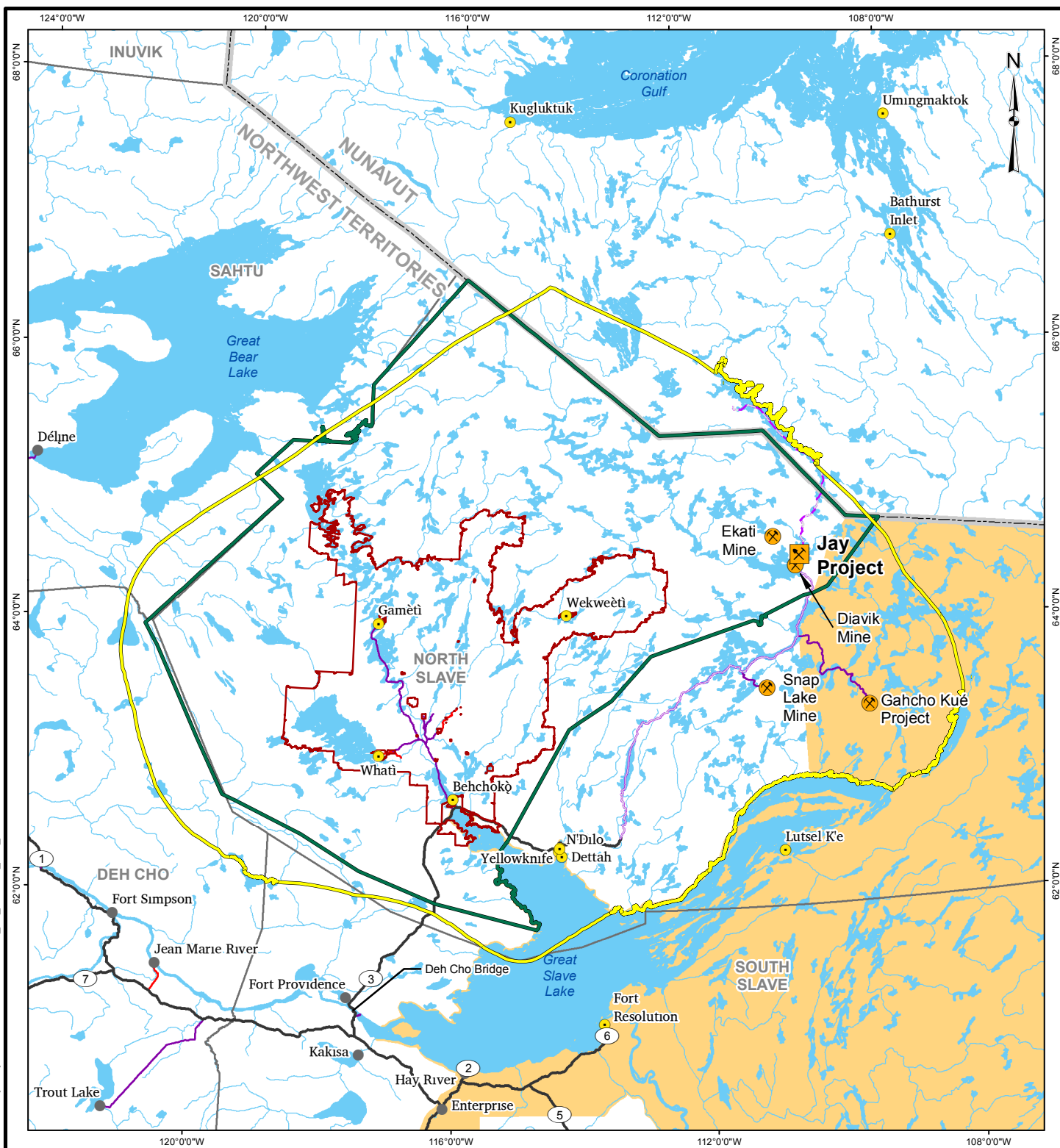
3.2.3 Devolution Agreement

The NWT Devolution Agreement (effective April 1, 2014) outlines the transfer of powers from the Government of Canada to the GNWT and Aboriginal Governments. Devolution aims to “give Northerners greater control over their lands and resources and improve regulatory processes” (AANDC 2014a). In 2013, the *Northwest Territories Devolution Act* was introduced in Parliament. It has been signed by the Government of Canada, the GNWT, the Inuvialuit Regional Corporation, the Gwich'in Tribal Council, the Sahtu Secretariat Incorporated, the Tłıchǫ Government, the Northwest Territory Métis Nation, the Acho Dene Koe First Nation, the Fort Liard Métis Local #67, the Deninu K'ue First Nation, and the Salt River First Nation (AANDC 2014a; GNWT 2014).

¹¹ The Acho Dene Doe First Nation represents the Dene and Métis who are indigenous to Fort Liard.

¹² The Northwest Territory Métis Nation will negotiate their agreement in two phases. In phase one the parties will negotiate a Land and Resource Agreement-in-Principle. Phase two will incorporate negotiations for self-government and move towards a Final Agreement.

¹³ The Dehcho First Nation represent the Dene and Métis of the 9 Communities in the Dehcho region: Deh Gah Gotie Dene Council (Fort Providence), Fort Providence Métis Council, Kaa'a'ge Tu First Nation (Kakisa), Sambaa K'e Dene Band (Trout Lake), Liidlí Kue First Nation (Fort Simpson), Métis Nation Local 62 (Fort Simpson), Tthekehdéli First Nation (Jean Marie River), Naha Dehe Dene Band (Nahanni Butte), Katlodeeche First Nation (Hay River Reserve), Pehdzeh Ki First Nation (Wrigley), and West Point First Nation (Hay River).



LEGEND

	JAY PROJECT		WATERCOURSE
	EXISTING MINE OR PROJECT		WATERBODY
	HIGHWAY		NWT REGION
	ALL-SEASON ROAD		COMMUNITY WITHIN LSA
	WINTER ROAD		COMMUNITY OUTSIDE LSA
	TIBBITT TO CONTWOYT TO WINTER ROAD		TŁİCHŨ FINAL AGREEMENT BOUNDARY
	NORTHERN PORTION OF TIBBITT TO CONTWOYT TO WINTER ROAD		MŴWHĠ GOGHA DĒ NĠTŁĒĒ BOUNDARY
	TERRITORIAL/PROVINCIAL BOUNDARY		WEK'ĒEZHĠI BOUNDARY
			NWT MÉTIS NATION IMA

REFERENCE

WATER OBTAINED FROM ATLAS OF CANADA
 NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
 REGIONAL BOUNDARY DATA OBTAINED FROM GNWT AND TŁİCHŨ GOVERNMENT
 PROJECTION: CANADA LAMBERT CONFORMAL CONIC

DOCUMENT

SOCIO-ECONOMIC BASELINE REPORT

100 0 100
 SCALE 1:4,500,000 KILOMETRES



DOMINION
 DIAMOND

JAY PROJECT
 NORTHWEST TERRITORIES, CANADA

TITLE

AGREEMENT BOUNDARIES IN THE NWT



Golder
 Associates

PROJECT	13-1328-0041	FILE No. B_JC_SocioEc_004_GIS
DESIGN	JO	28/03/14
GIS	DW	15/09/14
CHECK	CG	15/09/14
REVIEW	SM	15/09/14
SCALE AS SHOWN		REV. 0
MAP 3.2-1		

3.3 Economy

3.3.1 Economic Performance

3.3.1.1 Gross Domestic Product and Trade

Gross domestic product (GDP)¹⁴ is a major indicator of economic performance. In 2012, the GDP of the NWT was \$4.68 billion, down by nearly 1% from 2011 (in 2012 prices) (Table 3.3-1). In chained dollars¹⁵, the NWT economy shrunk by almost 25% between 2007 and 2012 (GNWTBS 2013c). Overall, the NWT economy is volatile with relatively large annual fluctuations compared to other jurisdictions in Canada.

Table 3.3-1 Gross Domestic Product and Economic Growth in Northwest Territories, 2007 to 2012

	2007 (\$, millions)	2008 (\$, millions)	2009 (\$, millions)	2010 (\$, millions)	2011 (\$, millions)	2012 (\$, millions)	Change 2007 to 2012 (%)
GDP (chained \$ 2007)	4,638	4,195	3,649	3,733	3,462	3,520	-24.1
Change (%)	n/a	-9.6	-13.0	2.3	-7.3	1.7	n/a
GDP (current prices)	4,637	5,015	4,020	4,787	4,718	4,675	0.8
Change (%)	n/a	8.2	-19.8	19.1	-1.4	-0.9	n/a

Source: GNWTBS (2013c).

GDP = gross domestic product; \$ = Canadian dollars; % = percent; n/a = not available.

In 2012, the NWT GDP per capita was approximately double (\$107,225) that of Canada as a whole (\$52,367). It was also substantially higher than the other northern jurisdictions of Nunavut (\$63,343) and Yukon (\$72,679) (Statistics Canada 2012a,b).

Change in the GDP of NWT by industry from 2007 to 2012 is shown in Table 3.3-2. The most noteworthy change is that the relative importance of mining and oil and gas extraction decreased by over 10%. The importance of construction has also decreased. Industries that increased in importance include retail, real estate services, educational services, health care and social assistance, and public administration (GNWTBS 2013d).

¹⁴ The GDP calculations have a margin of error. Thus, sources may report GDP numbers differently depending on the calculation used.

¹⁵ Chained dollars is a method of adjusting real dollar amounts for inflation over time, so as to allow comparison of figures from different years.

Table 3.3-2 Gross Domestic Product by Industry in Northwest Territories, 2007 to 2012

Industry	2007 (\$, millions)	2008 (\$, millions)	2009 (\$, millions)	2010 (\$, millions)	2011 (\$, millions)	2012 (\$, millions)	2007	2012
							% of Total	
All industries	4,510.9	4,102.9	3,587.2	3,675.3	3,405.8	3,469.5	100.0	100.0
Agriculture, forestry, fishing, and hunting	15.3	20.1	15.7	23.8	24.0	23.8	0.3	0.7
Mining, and oil and gas extraction	1,814.1	1,489.5	1,148.8	1,151.3	983.2	1,005.5	40.2	29.0
<i>Oil and gas extraction</i>	554.9	514.1	453.4	433.5	315.2	382.8	12.3	11.0
<i>Diamond mining</i>	1,088.9	816.9	640.7	657.7	579.0	558.8	24.1	16.1
<i>Support activities for oil and gas extraction</i>	x	x	x	5.0	9.1	10.7	x	0.3
<i>Support activities for mining</i>	89.4	105.3	43.9	x	x	x	2.0	x
Utilities	80.6	84.3	66.7	68.8	66.7	64.1	1.8	1.8
Construction	397.5	300.4	223.5	244.5	186.3	187.8	8.8	5.4
Manufacturing	13.2	10.3	4.9	6.5	6.3	3.3	0.3	0.1
Wholesale trade	117.8	116.0	89.0	102.9	102.9	106.5	2.6	3.1
Retail trade	167.5	187.4	178.6	173.2	178.4	187.4	3.7	5.4
Transportation and warehousing	244.7	243.2	219.3	224.4	224.3	239.8	5.4	6.9
Information and cultural industries	76.1	79.5	80.6	87.0	88.4	87.2	1.7	2.5
Finance and insurance	101.1	100.5	100.7	104.5	105.2	107.2	2.2	3.1
Real estate and rental and leasing	298.4	299.6	306.3	301.5	308.3	310.9	6.6	9.0
Professional, scientific, and technical services	89.1	88.2	97.6	96.2	95.2	93.7	2.0	2.7
Management of companies and enterprises	26.4	27.3	27.6	30.1	30.7	29.5	0.6	0.9
Administrative and support, waste management	67.3	66.1	63.5	66.6	66.7	67.9	1.5	2.0
Educational services	163.5	165.4	166.9	170.2	173.7	178.0	3.6	5.1
Health care and social assistance	220.2	221.8	226.9	231.2	232.1	236.2	4.9	6.8
Arts, entertainment, and recreation	7.2	7.0	7.2	7.5	7.3	7.1	0.2	0.2
Accommodation and food services	73.2	76.4	66.9	66.1	64.1	63.4	1.6	1.8
Other services (except public administration)	42.7	42.9	41.8	41.5	41.6	41.7	0.9	1.2
Public administration	495.0	501.0	507.8	532.6	529.8	540.0	11.0	15.6

Source: GNWTBS (2013d).

Notes: Dollar values are presented in millions, chained 2007 dollars. Data will not sum to totals since chained dollars are not additive.

% = percent; \$ = Canadian dollars, x = data are suppressed.

The NWT's external trade (interprovincial and international) in years 2007 to 2012 (in current dollars) is listed in Table 3.3-3. In 2012, the NWT trade balance was negative (i.e., more imports than exports). During this five-year period, the cumulative NWT trade balance was also negative (\$-185 million), despite the large positive balance in 2008. Overall, exports have decreased since 2008, while imports have increased. The NWT relies mostly on other provinces and territories for imports. In 2012, 74.5% of imports came from elsewhere in Canada. Conversely, in 2012, almost 61.4% of exports went to international destinations (GNWTBS 2012a).

Table 3.3-3 Interprovincial and International Trade in Northwest Territories, 2007 to 2012

	2008 (\$, millions)	2009 (\$, millions)	2010 (\$, millions)	2011 (\$, millions)	2012 (\$, millions)
Exports	3,582	2,741	3,396	3,464	3,058
International	2,279	1,651	2,191	2,127	1,877
Interprovincial	1,303	1,090	1,205	1,337	1,181
Imports	3,190	3,006	3,404	3,400	3,426
International	884	795	903	875	977
Interprovincial	2,306	2,211	2,501	2,525	2,449
Trade Balance	392	-265	-8	64	-368
International	1,395	856	1,288	1,252	900
Interprovincial	-1,003	-1,121	-1,296	-1,188	-1,268

Source: GNWTBS (2012a).

\$ = Canadian dollars.

Trade in 2012 between the NWT and international partners is broken down by industry in Table 3.3-4. Those countries with a trade balance of greater than \$1 million are listed separately. Overall, the NWT imports relatively little in comparison to the territorial international exports. Imports from top trading partners are limited to manufactured goods that come primarily from China and the United States. Mining and oil and gas extraction make up the majority of the territory's exports. The NWT's top international trading partners are Belgium and the United Kingdom. Since 2007, trade between the NWT and India and China has been growing steadily (Industry Canada 2013). Most of the manufactured goods exported to other countries (i.e., not identified individually in Table 3.3-4) went to European nations (Industry Canada 2013).

Table 3.3-4 Northwest Territories Trade Balance, by Top Northwest Territories Industry, with Top Trading Partners, 2012

Country	Mining and Oil and Gas Extraction (\$)		Manufacturing (\$)	
	Exports	Imports	Exports	Imports
Belgium	819,132,122	0	12,178	0
United Kingdom	729,992,909	0	84,397	490
India	173,019,561	0	0	0
China	46,648,177	0	0	218,597
Netherlands	31,990,000	0	590	0
United States	17,130,703	0	593,073	144,470
Japan	4,551,460	0	0	0
Mexico	3,025,767	0	640	0
Israel	1,872,572	0	0	0
Armenia	1,038,401	0	0	0

Source: Industry Canada (2013).

\$ = Canadian dollars.

3.3.1.2 *Cost of Living and Consumer Price Index*

The cost of living in the NWT is high when compared to the rest of Canada. In 2013, the cost of living in the NWT communities was between 20% and 80% higher than Edmonton, Alberta. Out of all NWT regions, the cost of living was the lowest in Yellowknife and highest in the Sahtu and Beaufort Delta regions, both of which are outside of the LSA (GNWTBS 2013e). The cost of living differential between LSA communities and Edmonton, while overall less pronounced than in other regions, grew between 2000 and 2013, with the most noticeable increase (15%) occurring in Lutsel K'e (Table 3.3-5) (GNWTBS 2013e).

Table 3.3-5 Cost of Living Differentials in Local Study Area Communities, 2000 to 2013 (Edmonton = 100)

Community	2000	2005	2009	2013
Behchokò	125 – 130	120 – 125	125 – 130	125 – 130
Fort Resolution	135 – 140	134 – 140	140 – 145	140 – 145
Gamètì	150 – 155	145 – 150	145 – 150	150 – 155
Lutsel K'e	150 – 155	150 – 155	160 – 165	165 – 170
Whatì	145 – 150	145 – 150	145 – 150	150 – 155
Yellowknife	120 – 125	115 – 120	115 – 120	120 – 125

Source: GNWTBS (2013e).

Note: Information was not available for the remaining LSA communities.
LSA = local study area.

The evolution of consumer prices in Yellowknife and Canada since 2002 is shown in Table 3.3-6. The inflation rate is not readily available for other NWT communities or for the NWT as a whole. Yellowknife is an expensive place to live, with consumer prices rising to 26.1% higher in 2013 than in 2012. This growth in consumer prices is high when compared to Canada as a whole (GNWTBS 2013f). Between 2007 and 2013, the average annual increase in consumer prices in Yellowknife was 2.3%, while the average annual increase in Canada was 1.7%.

Table 3.3-6 Consumer Price Index in Yellowknife (Northwest Territories) and Canada, 2007 to 2013 (2002 = 100)

Year	Yellowknife		Canada	
	CPI	Average Annual Increase	CPI	Average Annual Increase
2013	126.1	1.4	122.8	0.9
2012	124.3	2.2	121.7	1.5
2011	121.6	3.1	119.9	2.9
2010	117.9	1.7	116.5	1.8
2009	115.9	0.6	114.4	0.3
2008	115.2	4.0	114.1	2.3
2007	110.8	2.9	111.5	2.2

Source: GNWTBS (2013f).

Note: Values for 2013 are based on January to October.

CPI = consumer price index.

3.3.1.3 Investment and Expenditures

Since 2000, the NWT has lagged far behind Canada and the other territories when measuring investment growth (Table 3.3-7). While investment has surged in Nunavut (253%) and Yukon (205%) since 2000, growth in the NWT has been slower (82.5%) (Table 3.3-7 presents capital expenditures between 2000 and 2013 in current dollars). Since 2007, the NWT has seen four years (i.e., 2008, 2009, 2011, 2013) of sharp decreases in investments, and an overall decrease in investment of almost 25% (GNWTBS 2013g). The NWT, however, had much higher rates of investment than Nunavut and Yukon throughout the 1990s during the exploration and development phase of the diamond mines. The higher levels of investment in Yukon and Nunavut represent the development of the natural resource and associated sectors from previously lower levels than the NWT.

Given their relatively (when compared to Canada) small size, the economies of the territories are susceptible to fluctuations, and tend to be more volatile than larger economies. The addition of one medium to large natural resource project (e.g., a mine construction project) can have a substantial effect on economic indicators. However, the historically sparse number of large projects in Canada's North makes it difficult to use past trends to project into the future.

Table 3.3-7 Capital Expenditures in Canada and Territories, 2000 to 2013

Year	Canada		NWT		Nunavut		Yukon	
	\$	Average Annual Change (%)	\$	Average Annual Change (%)	\$	Average Annual Change (%)	\$	Average Annual Change (%)
2000	194,926	5.6	824	48.7	247	-7.0	249	-8.5
2001	206,871	6.1	1,401	70.1	277	12.3	286	14.8
2002	213,979	3.4	1,350	-3.6	268	-3.5	298	4.1
2003	224,850	5.1	817	-39.5	362	35.3	353	18.6
2004	247,882	10.2	1,248	52.8	462	27.6	419	18.8
2005	273,225	10.2	1,469	17.7	469	1.4	518	23.6
2006	305,410	11.8	1,848	25.8	473	0.8	567	9.5
2007	328,805	7.7	1,995	7.9	863	82.5	613	8.1
2008	349,259	6.2	1,562	-21.7	1,331	54.3	580	-5.5
2009	306,608	-12.2	1,071	-31.4	726	-45.4	607	4.8
2010	346,877	13.1	1,247	16.4	844	16.3	892	46.8
2011	365,209	5.3	1,087	-12.8	1,114	31.9	1,083	21.4
2012	391,508	7.2	1,324	21.8	918	-17.6	826	-23.7
2013	398,768	1.9	1,504	13.6	872	-5.0	760	-8.0
Growth 2000 to 2013 (%)	203,842	104.6	680	82.5	625	253.0	511	205.2
Growth 2007 to 2013 (%)	69,963	21.3	-491	-24.6	9	1.0	147	24.0

Source: GNWTBS (2013g).

Note: 2013 numbers are based on intended capital expenditures.

NWT = Northwest Territories; \$ = Canadian dollars; % = percent.

Public investment has become increasingly important for the NWT economy (Table 3.3-8). In the last four years, public investment has accounted for over a quarter (26%) of the total investment in the territory (GNWTBS 2013h). However, the relative importance of public investment could decrease quite substantially if a large natural resource project commences in the NWT.

Table 3.3-8 Public and Private Capital Investment in the Northwest Territories, 2000 to 2013

Year	Public Investment		Private Investment		Total
	\$, millions	% of Total	\$, millions	% of Total	\$, millions
2000	90	22.9	733	77.1	824
2001	126	10.9	1,276	89.0	1,401
2002	187	9.0	1,163	91.1	1,350
2003	143	13.9	674	86.1	817
2004	154	17.5	1,094	82.5	1,248
2005	155	12.3	1,314	87.7	1,469
2006	137	10.6	1,712	89.4	1,848
2007	163	7.4	1,832	92.6	1,995
2008	194	8.2	1,367	91.8	1,562
2009	278	12.4	792	87.5	1,071
2010	333	26.0	914	73.9	1,247
2011	281	26.7	806	73.3	1,087
2012	341	25.9	983	74.1	1,324
2013	248	25.8	880	74.2	1,127

Source: GNWTBS (2014b).

Note: Dollar values are provided in millions, current dollars.

\$ = Canadian dollars; % = percent.

3.3.2 Economic Sectors

This section provides an overview of recent developments in key economic sectors in the NWT.

Some sectors are currently major contributors to the NWT economy (refer to Table 3.3-2), while others are considered future growth sectors and, therefore, also play an important role in the NWT economy.

3.3.2.1 Mining

Mining is a major industry that heavily influences the territorial economy. It is the largest private sector employer in the NWT and provides important indirect and induced economic effects for the territory. As of 2013, there were four major operating mines in the NWT: three diamond mines and one tungsten mine (Table 3.3-9). Combined, they contributed over 3,500 person-years of employment (i.e., full-time equivalent [FTE] positions) to the NWT economy in 2011 (GNWT-ITI 2013a).

Table 3.3-9 Producing Mines in the Northwest Territories, 2012

Mine	Company	Commodity	Production Volumes	Employment 2011 (Person-Years)
Diavik	Rio Tinto Group	Diamonds	6.7 million carats	1,137
Ekati	BHP Billiton Ltd.	Diamonds	2.5 million carats	1,528
Snap Lake	De Beers Canada Corp.	Diamonds	<900,000 carats	635
Cantung	North American Tungsten Corporation Ltd.	Tungsten	2.5 million kg WO ₃	204

Source: GNWT-ITI (2013a).

< = less than; kg = kilogram; WO₃ = tungsten trioxide.

Gold, silver, and diamonds have been the focal point of precious metal and mineral mining in the NWT. Although gold and silver production in the territory was suspended in 2004, the production of diamonds has continued. Since 2003, the value of NWT diamond production has ranged between \$1.4 and \$2.1 billion. Shipments of diamonds peaked in 2007 but each carat has yielded increased values in recent years, although it has not reached values that were seen in 2000 and the late 1990s (GNWTBS 2013h,i). Recent trends in production of gold and diamonds in the NWT are shown in Table 3.3-10.

Table 3.3-10 Value and Volume of Precious Mineral Production in the Northwest Territories, 1999 to 2012

Year	Gold (\$, thousands)	Silver (\$, thousands)	Diamonds (\$, thousands)	Diamond Shipments (carats, thousands)
1999	42,053	156	606,254	2,429
2000	51,064	243	624,949	2,435
2001	54,314	207	717,780	3,716
2002	55,641	213	791,821	4,937
2003	42,820	149	1,587,740	10,756
2004	8,752	27	2,096,718	12,680
2005	0	0	1,762,053	12,314
2006	0	0	1,567,019	12,976
2007	0	0	1,764,893	16,773
2008	0	0	2,056,656	13,691
2009	0	0	1,447,940	10,250
2010	0	0	2,029,468	11,005
2011	0	0	2,053,345	9,950
2012	0	0	1,614,897	9,670

Source: GNWTBS (2013h,i).

\$ = Canadian dollars.

The four producing mines are approaching the end of their operating phases, and there are signs that the NWT might be losing its leadership as the mining centre for the North. In 2008 and 2009, Nunavut had almost twice the mineral exploration investment than the NWT (Natural Resources Canada 2009). Furthermore, investment in the NWT is largely for advanced projects whereas investment in the other two territories focuses on new potentials.

The government has developed the *Northwest Territories Mineral Development Strategy*¹⁶ to encourage long-term growth of the sector by providing a viable investment climate. This strategy includes increasing incentives for exploration such as increased geological information, and improved infrastructure and energy sources to power projects (GNWT-ITI 2013a). Proposed energy projects include an expansion of the Snare and Talston hydro projects to service communities not currently linked to the grid, and the increase of overall energy production in the territory for industrial use and sale to neighbouring provinces (CBC 2013a).

The Mineral Development Strategy also seeks to improve the regulatory environment for companies (GNWT-ITI 2013a). Along with the terms and conditions of devolution of responsibility for managing lands, waters, and mineral resources from the federal to the territorial governments, the creation of a regulatory “super-board” has also been tabled in parliament as part of the *Northwest Territories Devolution Act* (Bill C-15) (CBC 2013b). The super-board proposes to amalgamate the functions of the MVRB and all the land and water boards in the territory.

The Mineral Development Strategy has the following goals:

- increasing the capacity of Aboriginal and local communities;
- developing tools such as land use plans to assist companies with project planning and permitting; and,
- investing in the development of a trained northern workforce (GNWT-ITI 2013a).

Five major mines are currently planned for the NWT. The key projects that are likely to be constructed at the same time as the Jay Project are listed in Table 3.3-11. As of winter 2013, the Gahcho Kué and Prairie Creek projects are the most advanced, with recent socio-economic agreements signed between the developer and the GNWT (GNWT-ITI 2013b). Projects potentially overlapping with the operation of the Jay Project are discussed further in the cumulative effects assessment within the socio-economic impact assessment (Developer’s Assessment Report, Section 14).

¹⁶ The NWT Mineral Development Strategy was released in 2013 and developed by the NWT and Nunavut Chamber of Commerce and the GNWT (GNWT-ITI 2013a).

Table 3.3-11 Potential Upcoming Mining Projects in the Northwest Territories

Mine	Company	Commodity	Location	CAPEX (\$, millions)	Potential Start of Production	Potential Life Span (Years)
NICO	Fortune Minerals Limited	Cobalt, gold, bismuth, copper	160 km NW of Yellowknife	441	n/a	20
Yellowknife Gold Project	Tyhee Gold Corp.	Gold	90 km N of Yellowknife	265.2	2015	14
Courageous Lake	Seabridge Gold Inc.	Gold	240 km NE of Yellowknife	1,520	n/a	15
Thor Lake	Avalon Rare Metals	Rare earth elements	5 km N of Hearne Channel	589	2016	n/a
Gahcho Kué	De Beers Canada Corp.	Diamonds	280 km NE of Yellowknife	650	2015/2016	11
Prairie Creek	Canada Zinc Corp.	Zinc, lead, silver	500 km W of Yellowknife	235.4	n/a	11

Sources: Canadian Zinc (2012); DeBeers (2013b); GNWT-ITI (2013b).

n/a = not available; km = kilometres; N = north; NE = northeast; NW = northwest; CAPEX = capital expenditures; \$ = Canadian dollars.

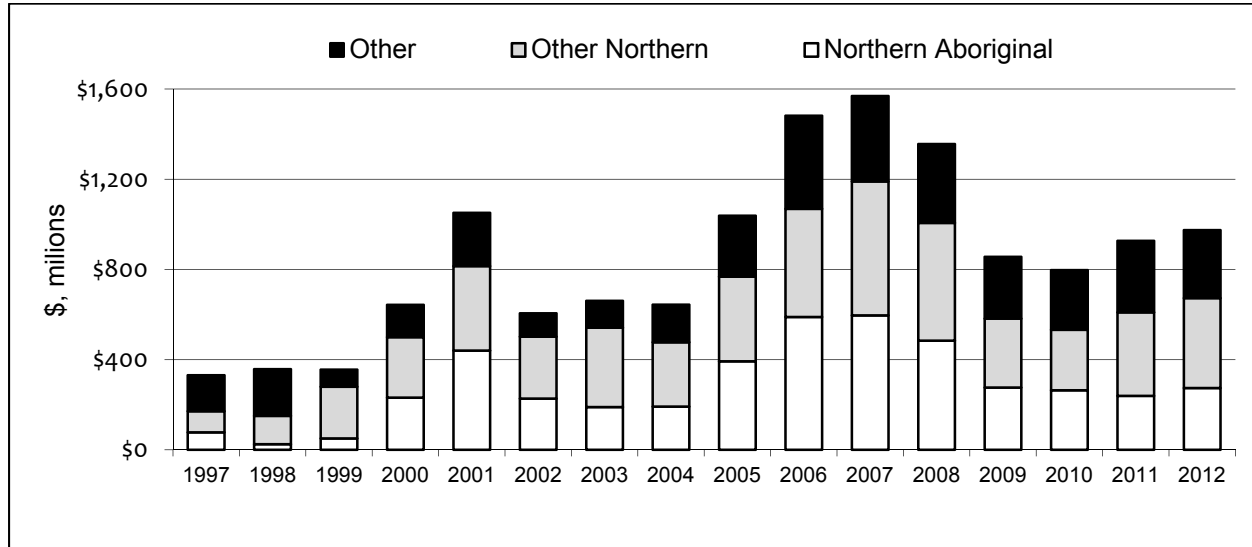
3.3.2.1.1 Diamond Mining

Diamond mining is currently the most important mining sector in the NWT. The industry is important to the territory beyond its contribution to GDP. Through direct purchases of labour and capital, and the indirect and induced effects of spending, the industry has made a major contribution to the wealth and prosperity of the residents and businesses in the NWT.

The NWT's diamond mining industry has spent \$13.7 billion since 1997, when construction at the Ekati Mine began. The peak year for expenditures was 2007 at just under \$1.6 billion (De Beers 2008, 2009, 2010, 2011, 2012, 2013a,b; BHP Billiton 2008, 2009, 2010, 2011, 2012; Dominion Diamond 2013a; Rio Tinto 2008, 2009, 2010, 2011, 2012, 2013). During 2007, the Ekati and Diavik mines were developing new resources in addition to producing diamonds, and Snap Lake Diamond Mine (Snap Lake Mine) was in its final year of construction. The GNWTBS calculated the 2008 GDP multiplier for diamond mining to be 1.0246, which means that for every \$1,000 of real output in the diamond mining industry, another \$24.60 of real output is created elsewhere in the economy.

The distribution of the diamond mining industry's expenditures between Northern Aboriginal-owned businesses, other Northern-based businesses, and southern-based businesses is broken down in Figure 3.3-1. Over the 16-year history of diamond mining in the NWT (1997 to 2012), over 70% (\$9.89 billion) of industry spending has gone directly to Northern Aboriginal and other Northern-based businesses.

Figure 3.3-1 Total Diamond Mine Expenditures by Priority Group, 1997 to 2012



Sources: De Beers (2008, 2009, 2010, 2011, 2012, 2013a,b); BHP Billiton (2008, 2009, 2010, 2011, 2012); Dominion Diamond (2013a); Rio Tinto (2008, 2009, 2010, 2011, 2012, 2013).

Notes: The Aboriginal figures include Inuit from Nunavut and Métis from the NWT, but not First Nations, Inuit, or Métis people or businesses residing outside the NWT or Nunavut.

\$ = Canadian dollars, NWT = Northwest Territories.

3.3.2.1.2 *Ekati's Existing Economic Impact*

The Ekati Mine is a key contributor to the diamond mining industry in the NWT. The Ekati Mine is the largest of the three active diamond mines in the territory when measured by annual spending, employment, and tonnage of rock moved. The mine's production history since 1999 is detailed in Table 3.3-12. In 14.5 years of production, the Ekati Mine has processed 58,948,000 tonnes of kimberlite, recovering 53,544 carats. The mine has been operating at or near its processing capacity since 2003.

Since its development began, the Ekati Mine has spent \$5.98 billion on construction, operations, additional exploration, and development. On average, 72% (\$4.3 billion) of that spending has gone to Northern Aboriginal or other Northern-based businesses (Figure 3.3-2).

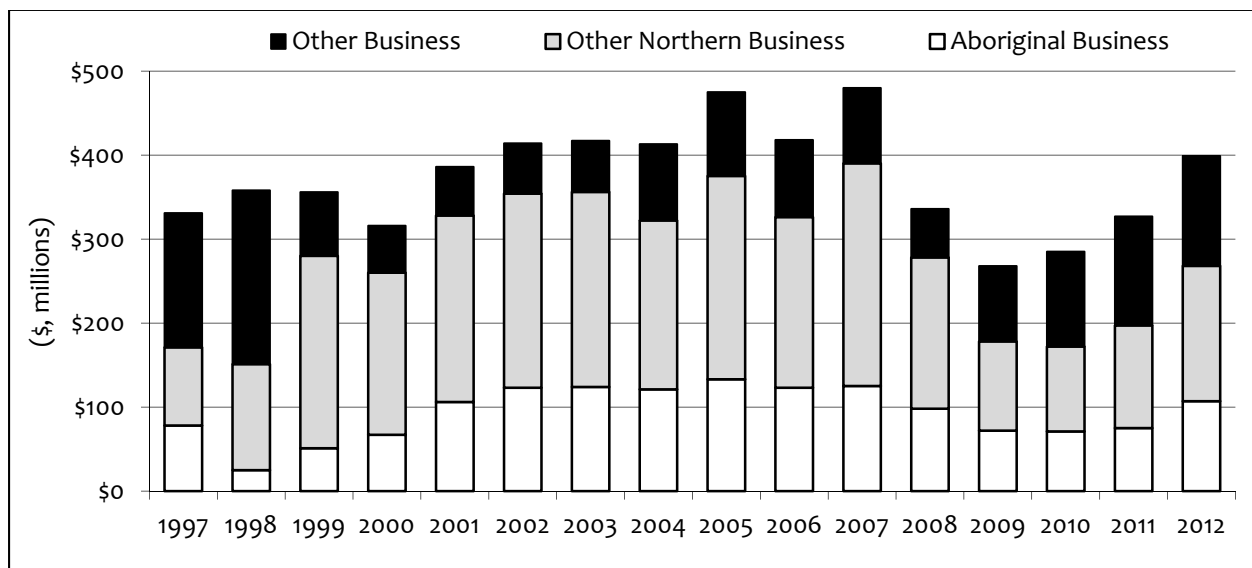
Table 3.3-12 Ekati Mine Production History

Fiscal Year	Metric Tonnes Processed (thousands)	Carats Recovered (thousands)	Grade: Carats per Tonne
1999	1,565	1,230	0.79
2000	3,377	2,777	0.82
2001	3,199	2,800	0.88
2002	3,354	4,562	1.36
2003	4,310	5,424	1.26
2004	4,446	6,853	1.54
2005	4,595	4,522	0.98
2006	4,297	3,197	0.74
2007	4,539	4,030	0.89
2008	4,411	4,188	0.95
2009	4,762	4,026	0.85
2010	4,895	3,811	0.78
2011	4,692	3,133	0.67
2012	4,482	2,231	0.50
2013 ^(a)	2,024	760	0.38
Total	58,948	53,544	0.91 (average)

Source: Dominion Diamond (2013b).

a) 2013 figures are for the first six months of the year.

Figure 3.3-2 Ekati Mine Expenditures by Priority Group, 1997 to 2012



Sources: BHP Billiton (2008, 2009, 2010, 2011, 2012); Dominion Diamond (2013a).
\$ = Canadian dollars.

In 2013, the Ekati Mine spent \$245.4 million on Northern-based businesses. The categories of business expenditures of mineral exploration, development, and mining, including Ekati Mine, are diverse (Table 3.3-13) (Dominion Diamond 2014a).

Table 3.3-13 Northern Expenditures by Category, 2013

Expenditures	Amount Spent (\$, thousands)	% of Total
Earth moving equipment	70,277,947	28.6
Freight, cargo, and mail transport	49,746,529	20.3
Mine drilling and blasting services	34,724,964	14.2
Vehicle repair and maintenance	17,212,810	7.0
Personal and domestic services	14,441,241	5.9
Passenger transport	8,764,996	3.6
Building construction and maintenance	7,764,062	3.2
Hardware	4,068,673	1.7
Human resources services	4,000,321	1.6
Community and social services	3,955,724	1.6
Vehicle components and parts (excluding earth moving tyres)	3,694,749	1.5
Environmental services	3,005,934	1.2
Professional engineering services	2,973,134	1.2
Pumps, compressors, and filters	2,221,724	0.9
Fuels and lubricants	2,187,768	0.9
Bearings and gears	1,834,942	0.7
Accommodation and meeting facilities	1,785,330	0.7
Underground mining equipment	1,738,561	0.7
Security and safety equipment	1,653,776	0.7
Electrical equipment and components	1,104,422	0.5
Earth moving tyres	1,100,643	0.4
Other	7,112,274	2.9

Source: Dominion Diamond (2014a).

\$ = Canadian dollars; % = percent.

Most of the Ekati Mine's northern expenditures occur with businesses in the City of Yellowknife. While some businesses are the northern extension of non-NWT companies (e.g., Shell, the Bank of Nova Scotia, TD Canada Trust), most are businesses owned and operated by northerners. Of the Northern expenditures, the vast majority occurs with these Northern-owned businesses, as opposed to the northern operations of southern companies. From 2007 to 2012, the largest expenditures to businesses in Yellowknife were for freight and cargo services, human resources, transportation, personal and domestic services, earth moving, building maintenance, and mine drilling and blasting. Expenditures in small LSA communities were generally less than those in Yellowknife, and accounted for approximately 1% to 2% of the total expenditure in the LSA from 2007 to 2012. This small percentage, however, is still relatively large (i.e., over \$10 million) when considering the size of the small LSA communities, and the services that are offered within them (Dominion Diamond 2014b).

The purchase of goods and services from NWT businesses for use at the Ekati Mine has additional benefits for the regional economy. Businesses awarded contracts will require other goods and services to fulfil the contract. The additional spending on goods and services (including labour) by contractors is an indirect effect. This indirect effect is typically small in the NWT because of the absence of a manufacturing base. As businesses consume goods and services in fulfilling contracts for the Ekati Mine, they must replace them. Often, the replacements come in the form of imports. It is more common to find the supply chain in the NWT providing wholesaling, transportation, logistical, and professional services than manufactured goods.

3.3.2.1.3 *Ekati Mine Household Expenditures*

The labour income multiplier for diamond mining is 1.0969. In this case, for every \$1,000 in labour income paid by the diamond industry to employees, employees with jobs indirectly associated with the mine earn another \$96.90 in labour income (Impact Economics 2014).

The employment multiplier for diamond mining is 1.1926. For every 1,000 employees working directly in the diamond mining industry, another 192.6 jobs are created elsewhere in the NWT economy. These multipliers are low in comparison to those in other jurisdictions, but are nonetheless important contributors to the overall economic vitality of the NWT economy, especially when considering that diamond mining has, at times, represented as much as 24% of that economy (Impact Economics 2014).

When the labour income earned directly with the mining project (working for the mine owner or its contractors) or indirectly for a supplier is spent in the economy, that consumer spending generates additional economic activity. This additional economic activity is referred to as the induced effect. The induced effect has a positive impact on the NWT's retail sector as well as increasing spending on such things as housing, recreation, and imports.

Induced effects can be challenging to measure. People who work in the NWT's mining industry but live elsewhere would not spend their income in the territory and therefore do not contribute to the induced effect. Further, when calculating the induced effect, savings, taxes, and imports must also be considered. What remains enters the NWT economy in the form of consumer purchases of goods and services.

The distribution of expenditures by household in the NWT after savings is provided in Table 3.3-14. The information in this table provides insight into how and where money earned at the Ekati Mine might be spent. Note that for this table, imports are included as part of the current consumption, which is not a part of the regional economy.

Table 3.3-14 Average Household Expenditures in the Northwest Territories, all Households, 2012

Expenditure	Average Expenditure per Household	
	\$	%
Food	11,022	10
Shelter	21,697	20
Household operation	5,777	5
Household furnishings and equipment	2,735	3
Clothing	4,078	4
Transportation	15,276	14
Health care	1,456	1
Personal care	1,699	2
Recreation	6,720	6
Reading materials and other printed matter	260	<1
Education	722	1
Tobacco and alcoholic beverages	3,033	3
Games of chance (net amount)	670	1
Miscellaneous	1,476	1
Total current consumption	76,620	71
Personal income taxes	22,228	21
Personal insurance payments and pension contributions	6,385	6
Gifts of money and contributions to charity	2,408	2
Total Expenditures	107,641	100.0

Source: Statistics Canada (2013b).

Note: This survey is no longer administered.

\$ = Canadian dollars; % = percent; < = less than.

Estimates of wages paid to Ekati Mine employees and contractor staff can be calculated using Statistics Canada's input-output tables or by applying industry average wages for the different categories of jobs (management, professional, skilled, semi-skilled, and entry level) to the number of employees in each of these categories. This latter method produces an estimate of \$144 million in wages in 2012. Indirect labour income would be \$14 million using the 2008 input-output model calculations introduced earlier for a total income effect of \$158 million.

The first step in estimating the induced effects from direct and indirect labour income is to determine the portion of income paid to NWT residents. This portion can be estimated using the employee information reported in the *Ekati Mine 2012 Year in Review* (Dominion Diamond 2013a) and an assumption that all NWT-based indirect jobs are filled by resident labour. Direct personal taxes must be subtracted from the total as well as any spending on personal insurance, pension contributions, and gifts of money. Any unregistered savings and direct imports must also be subtracted (assume 10%). With these assumptions, the result is that approximately \$54 million in labour income entered the NWT economy in the form of consumer activity in 2012 because of the direct spending on labour and capital for the Ekati Mine.

3.3.2.2 Oil and Gas

The NWT is currently not a large producer of hydrocarbon products. In 2012, the NWT produced 6,346,562 barrels (756,767 cubic metres) of crude oil, or 1.0% of Canada's total production. The production per day was 17,388 barrels. The NWT's crude oil production has decreased by 60.7% from its peak in the early 1990s. Almost all of the crude oil production comes from the Norman Wells oil fields (CAPP 2013), which are located in the Sahtu Region on the north side of the Mackenzie River and to the west of Great Bear Lake.

The NWT produces a very low volume of natural gas, amounting to approximately 0.01% of Canada's total production in 2012 (CAPP 2013).

Given the potential for new oil and gas discoveries, including already established reserves, the NWT had \$3.8 billion of investment from oil and gas exploration activities in the territory between 2000 and 2011. The number of wells drilled peaked in 2003, but expenditures peaked between 2005 and 2008 (GNWTBS 2013h) (Table 3.3-15). Drilling activity declined sharply in the recessive years between 2007 and 2009, but has begun to increase to pre-recession levels (though not matching the performance in 2003). Expenditures, while remaining relatively high and stable during the recession, have dropped off in recent years.

Currently, the NWT has two key oil and gas potentials that are being explored and developed by major oil and gas companies. The Beaufort Sea (north of the Arctic Circle) is estimated to contain 90 billion barrels of undiscovered recoverable oil, 1,670 trillion cubic feet of natural gas, and 44 billion barrels of liquid natural gas (GNWT-ITI 2013c). Another reserve in the Sahtu region is estimated to contain one to two billion barrels of petroleum in the Canol shale formation (GNWT-ITI 2013d). There is currently little oil and gas potential in the LSA.

Table 3.3-15 Oil and Gas Wells Drilled and Expenditures in the Northwest Territories, 1993 to 2012

Year	Number of Wells Drilled	Expenditures (\$, millions)
1993	0	20.6
1994	2	29.6
1995	1	38.2
1996	3	67.4
1997	12	65.0
1998	8	75.9
1999	14	158.8
2000	13	315.2
2001	11	344.5
2002	10	320.1
2003	36	269.8
2004	18	324.8
2005	10	470.5
2006	5	393.0
2007	15	322.3
2008	10	429.0
2009	9	233.0
2010	13	260.7
2011	18	123.5
2012	13	n/a

Sources: GNWTBS (2013h).

\$ = Canadian dollars; n/a = not available.

3.3.2.3 Public Sector

The public sector is an important part of the NWT economy and remains the largest employer in the NWT. Combined, the public sector¹⁷ contributed 27.5% of the NWT GDP in 2009, up from 20% in 2007. The relative importance of the public sector has been growing steadily in recent years (GNWTBS 2013d). The public sector has also contributed to the total investment in the NWT, accounting for over 25% of the overall investment in the territory each year since 2010 (Table 3.3-8) (GNWTBS 2013h).

The high cost associated with service delivery in the NWT is a major driver of public expenditures, and is largely a result of the territory's vast, sparsely populated geographic area. Per capita health expenditure in the NWT was \$10,686, nearly double the Canadian average (\$5,988 per person) (National Health Expenditure Database 2013). Similarly, the total educational expenditure was estimated to be \$18,256 per student in 2007/2008, while the Canadian average was \$10,678 per student in the same period (Statistics Canada 2010).

¹⁷ Including educational services, health care, and social assistance, and all levels (local, territorial, federal, and Aboriginal) of public administration.

3.3.2.4 Tourism

Tourism is embedded in several sectors in GDP calculations, including retail trade, accommodations and services, transportation, and arts, entertainment and recreation. Therefore, it is difficult to estimate the overall value of tourism in the NWT. Leisure travel accounted for over two-thirds (68.5%) of the visits to the NWT in 2012/2013, with business travel making up the remaining one-third of trips into the territory. Overall, the number of visitors to the NWT increased by 4.1% between 2008/2009 and 2012/2013 (Table 3.3-16), largely due to a 31.4% increase in the number of leisure trips made during the period. However, the number of business visitors decreased by 28.3%. The largest growth activities were visiting friends and family (48.4% increase), outdoor adventure (47.6% increase) and, most notably, aurora viewing (185.5% increase). The total number of visitors decreased between 2008/2009 and 2011/2012, but spiked in 2012/2013.

Table 3.3-16 Northwest Territories Visitation Data, 2008/2009 to 2012/2013

Visitor Segment	2008/09	2009/10	2010/11	2011/12	2012/13	% Change From 2008/09 to 2012/13
Aurora viewing	5,500	5,400	6,800	7,400	15,700	185.5
Fishing	7,300	6,400	5,000	4,700	4,000	-45.2
General touring	14,800	14,500	12,900	13,400	15,200	2.7
Hunting	940	760	440	480	500	-46.8
Outdoor adventure	2,100	1,900	1,900	2,300	3,100	47.6
Visiting friends and relatives	9,300	12,900	13,400	11,800	13,800	48.4
Total leisure visitors	39,800	41,800	40,400	40,100	52,300	31.4
Business travellers	33,600	26,200	24,800	24,300	24,100	-28.3
Total visitors	73,400	68,000	65,200	64,400	76,400	4.1

Source: GNWT-ITI (2013e).

Note: Values represent number of travellers.

% = percent.

Despite an overall increase in tourism trips, visitor spending in the NWT has dropped between 2008/2009 and 2012/2013 (Table 3.3-17). With the substantial decrease in business travel during this period, associated spending by business visitors reduced greatly (i.e., by \$26.5 million or 35.5%). Large percentage decreases in spending were also associated with fishing, hunting, and outdoor adventure tourism; however, given the relatively small number of trips associated with these activities, the actual dollar value decline in spending is less noticeable (i.e., \$13.9 million) than in the case of business trips. Conversely, with greatly increased trip activity, spending associated with aurora viewing and visiting family and friends grew greatly (by 108.2% and 110.0%, respectively) between 2008/2009 and 2012/2013 (GNWT-ITI 2013e).

The NWT released a tourism strategy in 2011 called *Tourism 2015: New Directions for a Spectacular Future*, where the GNWT lists investments intended to boost tourism in the territory between 2001 and 2015. Out of \$1 billion of total investment, \$400 million was to be allocated to marketing, \$200 million to skill development, and \$150 million to Aboriginal tourism. The remaining \$250 million was targeted to research and planning, community engagement, and infrastructure (GNWT-ITI 2011).

Table 3.3-17 Northwest Territories Visitor Spending (Sales), 2008/2009 to 2012/2013

Visitor Segment	2008/09 (\$, millions)	2009/10 (\$, millions)	2010/11 (\$, millions)	2011/12 (\$, millions)	2012/13 (\$, millions)	% Change From 2008/09 to 2012/13
Aurora viewing	7.3	7.2	6.4	10.2	15.2	108.2
Fishing	17.0	12.6	12.0	12.9	10.6	-37.6
General touring	8.3	8.1	9.5	10.9	12.6	51.8
Hunting	12.5	10.1	4.3	5.5	5.8	-53.6
Outdoor adventure	6.8	6.1	5.8	5.2	6.0	-11.8
Visiting friends and relatives	4.0	5.4	6.6	7.2	8.4	110.0
Total leisure visitors	55.9	49.5	44.6	51.9	58.6	4.8
Business travellers	74.6	58.1	49.5	48.5	48.1	-35.5
Total spending (millions)	130.5	107.6	94.1	100.4	106.7	-18.2

Source: GNWT-ITI (2013e).

n/a = not available; % = percent; \$ = Canadian dollars.

3.3.2.5 Other Sectors

The arts and fine crafts industry (e.g., sewing, needlework, drawing, and painting) is important to the NWT economy, as well as the cultural identity of the people of the territory. It also contributes to the satisfaction of tourists who visit the NWT. In 2011, this sector contributed \$6.8 million to the territorial economy. There has been a steady upwards trend in arts and crafts production since 2006 (GNWT-ITI 2012a). In 2008, 8.7% of NWT residents produced arts and crafts. The Dehcho region led with 16.4%, while the Tłı̄ch̄o and Beaufort Delta regions came next with 15.0% and 13.5% of their populations producing arts and crafts, respectively (GNWTBS 2013j).

In 2012, construction accounted for 5.4% of the value of the NWT GDP (Table 3.3-2). This amount was a decrease of approximately 3% from the industry's 2007 contributions, when it accounted for nearly 9% of the NWT GDP (GNWTBS 2013d). As construction activity is linked to investment, this decrease is not surprising. When investment increases, construction activity will likely follow (NTOS 2013).

Sales of harvested furs in the NWT totalled just over \$1.5 million in 2011/2012, up from \$1.2 million the year before. Russia and China are the main buyers of NWT furs. Marten and bear furs account for 65% and 12% of the fur harvest value in the NWT, respectively (NTOS 2013). Total Canadian fur exports, however, were valued at \$706 million in 2012, indicating that the NWT is not a major producer of furs on the national level. The North American Fur Auctions Incorporated¹⁸ noted that fur prices are at their highest levels in two decades with prices tripling and quadrupling from 1990 levels (Toronto Star 2013). The increased demand for fur has the potential for NWT to increase its international exports of fur.

Other key sectors in the NWT include commercial fishing, filmmaking, manufacturing, transportation, retail, and wholesale trade (NTOS 2013).

¹⁸ The North American Fur Auctions Inc. are the largest sellers of wild furs in the world.

3.3.3 Economic Development

Economic development in the NWT is a high priority of the Government of Canada, the GNWT, and local governments, as well as several industry and not-for-profit organizations. The overarching goal is to elevate the social, economic, and cultural well-being of residents of Canada's North.

In its Northern Strategy, released in 2009, the Canadian government set out its vision for the North (Government of Canada 2009):

- Self-reliant individuals live in healthy, vital communities, manage their own affairs, and shape their own destinies.
- The Northern tradition of respect for the land and the environment is paramount and the principles of responsible and sustainable development anchor decision-making and action.
- Strong, responsible, accountable governments work together for a vibrant, prosperous future for all, a place whose people and governments are important contributing partners to a dynamic, secure Canadian federation.
- We patrol and protect our territory through enhanced presence on the land, in the sea, and over the skies of the Arctic.

One of the Northern Strategy's key priorities is the promotion of social and economic development¹⁹. The Canadian government has committed to several investments and actions to reach the goal of increased economic development in the North, including the following:

- strengthening key institutions of economic development and improving the regulatory environment (including a Northern Regulatory Improvement Initiative);
- establishing a new economic development agency for the North;
- supporting large resource projects in the North;
- funding new geo-mapping projects;
- providing increased funds for tourism promotion and for local and community cultural and heritage institutions; and,
- funding critical infrastructure and service needs (Government of Canada 2009).

¹⁹ The four equally important and mutually reinforcing priorities of the Northern Strategy are:

- exercising our Arctic sovereignty;
- promoting social and economic development;
- protecting our environmental heritage; and,
- improving and devolving Northern governance.

In 2013, several key stakeholders, including the Government of Northwest Territories – Department of Industry, Tourism and Investment (GNWT-ITI), developed and released the *Northwest Territories Economic Opportunities Strategy*²⁰ (NTOS 2013). The vision of the strategy is that it will “...help to guide the development and realization of economic potential in all regions of the NWT – strengthening and diversifying the NWT’s economy - and resulting in an enhanced quality of life for all NWT residents.” The guiding principles are as follows (NTOS 2013):

- The NWT is an attractive and affordable place to live, invest, and raise a family.
- Vibrant, healthy, well-educated NWT residents contribute to economic growth.
- Economic growth and regional diversity promote prosperous and self-sustaining communities.
- The NWT resources are developed to maximize benefits for NWT residents.
- The traditional economy is essential to the NWT’s well-being.
- Development balances the need to respect and protect the NWT’s lands and environment with the wise and considered use of its resources.

The NWT Economic Opportunities Strategy focuses on the following four themes (NTOS 2013):

- **Theme 1: Climate for Growth** – The targets are to stimulate investment and encourage residency.
- **Theme 2: Building on Success** – The targets are to explore potentials and enhance connections.
- **Theme 3: Regional Diversification** – The target is to build sectors using regional strengths.
- **Theme 4: Opportunity Readiness** – The targets are to establish a positive entrepreneurial environment and prepare NWT residents for employment.

The NWT Economic Opportunities Strategy identifies several economic strengths and opportunities of the territory. Key strengths include a robust mineral production, strong wholesale and retail trade sectors, and growing fur harvest and tourism sectors. Weaknesses include slow population growth, out-migration of skilled residents to southern provinces, high transportation costs, decreasing commercial fishing, economic leakage (mostly through wages paid to non-NWT residents), and slowing of the forestry and manufacturing sectors. It also outlines 117 specific and practical recommendations, and describes potential outcomes of these recommendations. A monitoring program was identified to track the success of the implementation of the strategy (NTOS 2013).

The NWT Economic Opportunities Strategy for the North Slave Region focuses on building existing assets, namely, the diamond-rich Slave Craton geological region, and continuing to promote tourism in the region. The major challenges to economic development include the expense of and difficulty with accessing markets for resource exportation, and the unpredictable nature of tourism and commodity markets in the face of global market fluctuations (NTOS 2013).

²⁰ Other stakeholders include the NWT Chamber of Commerce, the NWT Association of Communities, the Northern Aboriginal Business Association, and the Canadian Northern Economic Development Agency.

Yellowknife is considered separately from the North Slave Region in the NWT Economic Opportunities Strategy, but shares many of the region's economic foci and challenges. Overall, continuing to develop the existing resource extraction (e.g., diamond mining) and tourism industries is important to the economic development of the city. However, increasing access to Asian tourism markets, developing agriculture (e.g., market gardens, poultry production, greenhouses) in and around the city, encouraging commercial fishing, and growing the wholesale industry are additional strategies for economic growth. Challenges to this growth include the high cost (e.g., energy, construction, and importation/transportation costs) of doing business in the region and the susceptibility of the local economy to national and global market fluctuations and changes in demand for resources (NTOS 2013).

The NWT Economic Opportunities Strategy takes over the Common Ground Strategy, which was released in 2000. This predecessor is viewed as partially successful, although investment and increased self-reliance did not materialize as hoped (NTOS 2013).

Other important NWT strategies that relate to economic development include a Mineral Development Strategy, Land Use and Sustainability Framework, NWT Energy Plan, Anti-Poverty Strategy, Workforce Planning Strategy, NWT Energy Action Plan, NWT Biomass Energy Strategy, and Tourism 2015 (NTOS 2013).

The GNWT-ITI hosts several economic and business development initiatives. This department supports a network of economic development officers and funds, and supports entrepreneurs through various programs such as the SEED Program and the Community Futures Program (GNWT-ITI 2014a).

3.3.4 Informal Economic Activities

The World Bank defines an informal economy as activities and income that are partially or fully outside government regulation, taxation, and observation (World Bank 2013). For the purposes of this baseline report, the focus will be on traditional activities that create value, directly or indirectly, and that are not captured elsewhere in this report or considered in the broader discussion of the formal economy.

The value can be in the form of avoidance of costs that those involved would have otherwise borne. As an example, the value of a hunted animal can be viewed as the dollar amount that the hunter would have had to pay to purchase the same amount and quality of food from elsewhere, less the costs of hunting the animal.

The traditional economy has been a vital part of the existence of the people of the NWT for thousands of years. Such activities provide food, clothing, shelter, tools, and goods for trade. The GNWT recognizes this contribution and has put in place multiple programs to allow traditional activities to continue to thrive alongside the formal economy. These initiatives include the following (GNWT-ITI 2012b):

- Genuine Mackenzie Valley Fur Program (e.g., marketing/promotion services, guarantee advance payments, trapper education, and trapper recognition);
- Support to Traditional Crafts – a hide and fur supply program;
- Take a Kid Trapping Program – aimed to introduce youth to trapping, hunting, fishing, and outdoor survival;
- Canada – Northwest Territories Growing Forward Agreement, traditional harvest program; and,
- various harvester support programs.

Data on the economic value of traditional activities are limited. However, data on the volume and trends of such activities are available. Traditional activity rates from 2008 are listed in Table 3.3-18. In 2008, 39.4% of NWT residents hunted and fished, 6.2% trapped, 8.7% produced arts and fine crafts, and 28.1% of households consumed country foods for half or more of their diet (GNWTBS 2013h). Approximately 40% of NWT residents over the age of 15 spend time participating in traditional harvesting activities such as trapping, fishing, or hunting (GNWT-ITI 2012b). Yellowknife residents are the least involved in traditional activities. The types of activities vary in other regions (GNWTBS 2013h).

Table 3.3-18 Traditional Activities, Northwest Territories, 2008

Activity	Beaufort Delta (%)	Sahtu (%)	Dehcho (%)	South Slave (%)	Tłı̨chǫ ^(a) (%)	Yellowknife Area (%)	NWT (%)
Hunted and fished	48.1	44.7	46.7	39.5	40	34.5	39.4
Trapped	9.2	12	16.3	7.6	13.2	1.2	6.2
Produced arts and crafts	13.5	11.4	21.9	9.1	15	3.5	8.7
Households consuming country foods (half or more)	43.8	60.9	52.4	25.5	73.7	10.7	28.1

Source: GNWTBS (2013h).

Note: Values represent the percentage of the NWT population.

a) North Slave Region is termed "Tłı̨chǫ" by the source.

NWT = Northwest Territories; % = percent.

Hunters in the NWT are licensed in the following three classes (GNWT-ENR 2012a):

- General hunting licences are issued for life and are primarily held by Aboriginal people who hunt for subsistence use. In 2008, approximately 9,000 people had general hunting licences in the NWT.
- Resident hunting licences are issued to non-Aboriginal hunters who have lived in the NWT for at least two years. Since 2000, the number of resident hunters registered in the NWT has been stable at approximately 1,300 licences.
- Non-resident hunting licences are issued temporarily to people from outside the territory who visit to hunt. The number of non-resident licences varies annually.

Approximately 40% of NWT people go hunting or fishing (based on data from 1998, 2003, and 2008). However, these statistics do not capture the intensity of their hunting activities, because they only indicate that people have hunted during the year. Hunting and fishing are most prevalent among the Inuvialuit, and then the Dene and Métis (Table 3.3-19). Other NWT residents take part in such activities to a lesser extent. The participation rate of people who hunted or fished was relatively constant between 1998 and 2008 (GNWT-ENR 2013a).

Table 3.3-19 Percentage of Northwest Territories Sub-Populations that Hunt or Fish, 1983 to 2008

Survey Year	Subsistence Only				Subsistence and Recreational ^(a)			
	1983 ^(b) (%)	1988 ^(c) (%)	1993 ^(d) (%)	Average ^(e) (%)	1998 (%)	2003 (%)	2008 (%)	Average (%)
Inuvialuit	47	50	45	47	58	56	58	57
Dene/Métis ^(f)	28	28	31	29	42	44	43	43
Non-Aboriginal ^(g)	3	2	7	4	36	30	34	33
NWT	20	21	23	21	43	37	39	40

Source: GNWT-ENR 2013a.

a) 1984 NWT Labour Force Survey (Usher and Wenzel 1989).

b) 1989 NWT Labour Force Survey, Report 3, Table 2.7.

c) 1994 NWT Labour Survey.

d) Question was broadened to include recreational hunting and fishing. 1999 NWT Labour Survey; 2004 NWT Labour Survey; 2009 NWT Labour Survey.

e) Excludes 1999 data.

f) Estimates include Dene, Métis, and any other Aboriginal persons except Inuvialuit.

g) Estimated as total non-Aboriginal persons who hunted/fished divided by total persons interviewed in Fort Smith and Inuvik regions (1989 NWT Labour Force Survey, Report 3, Table 2.1; 1994 Labour Force Survey, data accessed 2002, Labour Market Analyst).

% = percent; NWT = Northwest Territories.

Hunting and fishing activities yield *country foods*, which is food that is produced from the land and is part of the traditional diet of the Aboriginal population. Country foods are important supplements to purchased food, and can offset household spending on groceries. The most common country foods in the NWT are the following (GNWT-ENR 2013a):

- mammals and birds: caribou, moose, ducks, geese, seals, hare, grouse, and ptarmigan;
- fish: Lake Trout, Char, Inconnu (Conny), White Fish, Pike, and Burbot; and,
- berries: blueberries, cranberries, blackberries, and cloudberryes.

A recent (2009) hunter survey showed that residents of the NWT are hunting less caribou, while the volume of harvest of other animals, e.g., hunting of grouse, ptarmigan, and hare, seems to be more cyclical. The percentage of people in the territory who rely on country foods remained stable in small communities between 1999 and 2009, with approximately 50% of families reliant on country foods for 75% or more of their meat and fish. The rate of reliance decreased slightly in large (from approximately 10% to 5%) and medium (from approximately 25% to 15%) sized communities (GNWT-ENR 2013a).

3.3.5 Government Revenue and Expenditures

The GNWT's revenue grew by 15.6% between 2006 and 2012 (inflation not accounted) (Table 3.3-20). Over this period, own-source revenues decreased by 8%, while transfers from the Government of Canada increased by over 20%, mainly from the territorial formula financing²¹. Corporate taxes decreased during this period but no royalties were collected (Conference Board of Canada 2013).

Table 3.3-20 Government of Northwest Territories Revenues and Expenditures, Budgetary Balance, and Net Debt

	2006 to 2007 ^(a) (\$, millions)	2007 to 2008 (\$, millions)	2008 to 2009 (\$, millions)	2009 to 2010 (\$, millions)	2010 to 2011 (\$, millions)	2011 to 2012 (\$, millions)
Total Revenues	1,203.8	1,305.7	1,255.7	1,293.5	1,351.6	1,392.1
Own-source revenues	324.5	346.4	336.7	308.2	326.6	298.0
Personal income taxes	81.6	50.0	78.8	62.7	63.0	89.6
Corporate taxes	49.5	104.9	61.1	54.1	56.8	20.3
Tobacco taxes	0.0	14.6	13.9	16.4	17.0	16.9
Payroll taxes	0.0	36.7	38.3	37.4	37.0	39.6
Royalties	0.0	0.0	0.0	0.0	0.0	0.0
Other own-source revenues	0.0	140.1	144.5	137.5	152.8	131.6
Transfers from Government of Canada	879.3	959.3	919.0	985.3	1,025.0	1,094.1
Canada Health Transfer	22.9	25.5	26.8	26.8	25.4	26.0
Canada Social Transfer	12.5	15.0	13.8	14.0	14.0	15.0
Other transfers from Government of Canada	0.0	0.0	0.0	0.0	50.1	54.5
Territorial formula financing	753.4	842.8	804.9	864.2	919.9	996.1
Total expenditures	1,116.1	1,211.5	1,297.1	1,337.8	1,352.4	1,425.7
Program spending	1,116.0	1,211.5	1,297.1	1,336.8	1,338.1	1,411.4
Health ^(b)	281.4	312.9	319.1	349.7	336.3	358.8
Education	267.9	284.4	294.0	324.4	283.0	288.2
Other program spending	566.8	614.2	684.0	662.7	718.9	764.4
<i>Budgetary balance</i>	87.7	94.2	-41.4	-44.3	-0.9	-33.7
<i>Change in capital assets, net of amortization</i>	-68.7	-43.0	-36.5	-68.5	-184.6	-154.4
<i>Net debt</i>	105.3	54.2	132.1	244.9	430.3	618.4

Source: Conference Board of Canada (2013).

Note: Dollar values are provided in millions, current dollars.

a) Some data not available for 2006 to 2007.

b) Includes health and social services expenditures.

\$ = Canadian dollars.

²¹ The Territorial Formula Financing (TFF) is an annual unconditional transfer from the Government of Canada to the three territorial governments to enable them to provide their residents with public services comparable to the rest of Canada. The TFF is based on the difference between a proxy of the territory's expenditure needs and its capacity to generate own source revenues. The TFF includes incentives for the territories to increase their own revenues and develop their economies by excluding 30% of territories measured revenue capacity from the calculation. Natural resource revenues are not part of the own-source eligible revenues for the purposes of TFF calculations (Department of Finance Canada 2013).

The GNWT's expenditures grew more than revenues in the 2006 to 2012 period, leading to a budgetary deficit for the last four years. Since 2006, the net debt of the GNWT has increased by 483%. However, the Conference Board of Canada recently projected that the GNWT's finances should regain a positive balance in 2013 to 2014, and should continue to be strong for the next five years, leading to a moderate decrease in the overall debt load of the territory. The Conference Board of Canada cites the recently signed devolution agreement, the opening of new natural resource projects, and the expansion of existing resource extraction projects (e.g., the Jay Project) for the projected \$113 million surplus in 2013 to 2014 (Conference Board of Canada 2013).

3.4 Employment and Incomes

3.4.1 Labour Force Characteristics

Of the total NWT population aged 15 and over (31,750), 75.4% participated in the labour force in 2011 (Table 3.4-1). The territorial unemployment rate was 11.4%. The participation rate in Yellowknife was higher than the territory at 84.9%, while the unemployment rate was lower (6.0%). Generally, in the smaller LSA communities, two-thirds of the population aged 15 years and over participated in the labour force. Roughly one-quarter to one-third of those who were in the labour force were unemployed. Participation in the labour force was lowest in Behchokò (53.3%) and highest in Gamètì (73.0%). Unemployment was highest in Lutsel K'e and Whati, where nearly half of the working age population (40.7% in Lutsel K'e, 45.7% in Whati) were unemployed.

Table 3.4-1 Labour Force Characteristics in the Local Study Area, 2011

Community	Population Aged 15 and Over	Labour Force	Employed	Full Time (%)	Worked More than 26 weeks (2010) (%)	Participation Rate (%)	Unemployment Rate (%)
Behchokò	1,275	680	505	66.2	76.3	53.3	26.5
Dettah	155	100	75	55.0	64.7	64.5	25.0
Fort Resolution	370	235	170	n/a	67.4	63.5	27.7
Gamètì	185	135	80	53.9	70.0	73.0	33.3
Lutsel K'e	215	135	85	53.5	65.2	62.8	40.7
Wekweètì	95	65	50	57.1	66.7	68.4	23.1
Whati	350	230	120	51.0	65.7	65.7	45.7
Yellowknife	15,025	12,760	11,990	84.6	88.3	84.9	6.0
Kugluktuk	965	615	420	n/a	67.9	63.7	30.9
NWT	31,750	23,930	21,200	79.4	84.3	75.4	11.4

Source: Statistics Canada (2011a).

% = percent; NWT = Northwest Territories.

Of those employed in NWT, and specifically Yellowknife, a large majority (79.4% [NWT] and 84.6% [Yellowknife]), worked full-time (Table 3.4-1). Conversely, in the smaller communities, just over half of the employed worked full-time, with the exception of Behchokò, where two-thirds were employed full-time. A similar pattern exists in the portion of the employed labour force that worked seasonally. In the NWT and Yellowknife, 84.3% and 88.3%, respectively, worked for more than 26 weeks of the year, while in the small LSA communities, this proportion was typically approximately 65%. Behchokò is, again, an exception, with 76.3% of the employed working for 26 weeks or more. Historical labour force participation rates and unemployment rates are detailed in Table 3.4-2, which highlights rates before diamond mining (i.e., 1994), during the period that diamond mining was developing in the NWT (2001), before and after the recession (2006, 2009), and recently (2011). Overall, the participation rates have dropped slowly in the NWT since 1994. While less of the population aged 15 years and over is in the labour force today, those who are in the labour force are more likely to be employed. The unemployment rate in the territory dropped noticeably from 14.8% in 1994 (pre-diamonds) to 9.5% in 2001 (post-diamonds). Rates rose again during the recession in the late 2000s, but not to the levels seen in the years before diamond mining development.

With the exception of Fort Resolution, all of the small LSA communities experienced increased labour force participation after the diamond mining industry developed in the NWT (Table 3.4-2). The communities also saw variable reductions in unemployment rates during this period. However, the recession of the late 2000s had lasting negative effects on participation and unemployment rates in the small LSA communities, although by 2011, conditions in most communities were nearing pre-recession, post-diamond mine development levels.

Table 3.4-2 Labour Force Participation and Unemployment in the Local Study Area, 2011

Community	Indicator	1994	2001	2006	2009	2011
		Pre-diamonds (%)	Post-diamonds (%)	Early Recession (%)	Post-recession (%)	Recent (%)
Behchokq	Participation rate	52.0	54.2	54.2	48.5	53.3
	Unemployment rate	41.7	19.1	26.3	22.7	26.5
Dettah	Participation rate	48.0	62.5	54.5	68.1	64.5
	Unemployment rate	29.6	20.0	16.7	28.2	25.0
Fort Resolution	Participation rate	60.6	54.1	57.5	51.8	63.5
	Unemployment rate	33.3	17.5	23.8	24.8	27.7
Gamèti	Participation rate	37.4	50.0	64.9	64.0	73.0
	Unemployment rate	10.8	22.2	29.2	24.1	33.3
Lutsel K'e	Participation rate	62.3	65.7	65.2	47.3	62.8
	Unemployment rate	31.7	21.7	30.0	27.8	40.7
Wekweèti	Participation rate	31.5	57.9	66.7	67.9	68.4
	Unemployment rate	17.2	18.2	25.0	14.5	23.1
Whati	Participation rate	60.5	65.5	58.5	59.4	65.7
	Unemployment rate	50.0	28.9	23.7	27.1	45.7
Yellowknife	Participation rate	87.5	85.0	84.2	84.5	84.9
	Unemployment rate	6.8	5.0	5.7	5.6	6.0
Kugluktuk	Participation rate	n/a	63.9	60.3	n/a	63.7
	Unemployment rate	n/a	22.8	22.2	n/a	30.9
NWT	Participation rate	77.2	77.1	76.5	75.1	75.4
	Unemployment rate	14.8	9.5	10.4	10.3	11.4

Source: Statistics Canada (2011a).

% = percent; n/a = not available.

3.4.2 Employment by Industry

In the NWT, the labour force is spread relatively evenly through occupations in the industries active in the territory (Table 3.4-3). The most prominent occupations in the NWT are found in the following industries: business, finance, and administration (17.3%); sales and services (17.0%); trades, transportation, and equipment operators (16.3%); education, law, and government (15.8%); and management (12.5%). Natural sciences, health, art, culture, sport, natural resources, agriculture, and manufacturing were less important employers in the NWT but still contribute to the occupation pool. This pattern is similar in Yellowknife.

The distribution of occupations by industry is generally similar in the small LSA communities. However, people from small LSA communities are more likely to have occupations in the trades, natural resource development, and education, law and government. Diamond mining in particular employs much of the labour force from small communities. Conversely, the workforce in small communities is less likely to be employed in management, business and finances, and health and sales occupations.

Table 3.4-3 Employment by Industry in the Local Study Area, 2011

Community	Total Labour Force Population Aged 15 Years and Over	Management Occupations		Business, Finance, and Administration Occupations		Natural and Applied Sciences and Related Occupations		Health Occupations		Occupations in Education, Law and Social, Community, and Government Services		Occupations in Art, Culture, Recreation, and Sport		Sales and Service Occupations		Trades, Transport and Equipment Operators, and Related Occupations		Natural Resources, Agriculture, and Related Production Occupations		Occupations in Manufacturing, and Utilities		Occupation Not Applicable (i.e., Other Occupations)	
	#	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Behchokq	680	45	6.6	70	10.3	10	1.5	20	2.9	160	23.5	10	1.5	90	13.2	160	23.5	35	5.1	0	0.0	75	11.0
Dettah	95	10	10.5	20	21.1	0	0.0	0	0.0	10	10.5	0	0.0	15	15.8	25	26.3	10	10.5	0	0.0	10	10.5
Fort Resolution	230	15	6.5	30	13.0	0	0.0	0	0.0	55	23.9	0	0.0	30	13.0	55	23.9	20	8.7	10	4.3	10	4.3
Gamèti	130	0	0.0	15	11.5	0	0.0	0	0.0	30	23.1	0	0.0	15	11.5	25	19.2	10	7.7	0	0.0	25	19.2
Lutsel K'e	140	10	7.1	20	14.3	0	0.0	0	0.0	25	17.9	0	0.0	20	14.3	25	17.9	15	10.7	0	0.0	20	14.3
Wekweètì	70	0	0.0	10	14.3	0	0.0	0	0.0	15	21.4	0	0.0	10	14.3	15	21.4	0	0.0	0	0.0	0	0.0
Whatì	230	10	4.3	20	8.7	0	0.0	0	0.0	35	15.2	0	0.0	35	15.2	50	21.7	25	10.9	0	0.0	50	21.7
Yellowknife	12,760	1,745	13.7	2,480	19.4	1,240	9.7	650	5.1	1,855	14.5	350	2.7	2,195	17.2	1,615	12.7	280	2.2	125	1.0	225	1.8
Kugluktuk	615	30	4.9	50	8.1	20	3.3	15	2.4	135	22.0	15	2.4	140	22.8	125	20.3	15	2.4	10	1.6	60	9.8
NWT	23,930	2,995	12.5	4,140	17.3	1,715	7.2	1,055	4.4	3,785	15.8	535	2.2	4,060	17.0	3,895	16.3	660	2.8	295	1.2	780	3.3

Source: Statistics Canada (2011c).

= number; % = percent; NWT = Northwest Territories; i.e., = that is.

3.4.3 Public Sector Employment

The public sector is the largest employer in the NWT. In 2009, 43.2% of employed people in the territory worked for the federal, territorial, or local government (including health services, social services, and education) (GNWTBS 2013c). The number of government employees has grown by almost one-third since 2000, with the highest growth seen in the area of local government (Table 3.4-4). This growth is considerably higher than the population growth over the same period (Section 3.1.1). Only health and social services jobs have decreased in number. The number of GNWT jobs grew by almost 35% between 2000 and 2012 (GNWTBS 2013k).

Table 3.4-4 Employment in the Public Sector by Level of Government in the Northwest Territories, 2000 to 2012

Level of Government	2000	2002	2004	2006	2008	2010	2012	Change 2000 to 2012 (%)
Federal administration	1,000	1,025	1,117	1,125	1,195	1,244	1,221	22.1
Territorial administration	3,453	3,828	3,908	4,239	4,745	4,823	4,652	34.7
Local government employment	859	1,330	1,227	1,311	1,388	1,531	1,569	82.7
Health and social services	879	935	1,130	736	776	756	787	-10.5
Other government	459	525	523	432	550	506	554	20.7
Total administration	6,650	7,643	7,905	7,843	8,654	8,860	8,783	32.1

Source: GNWTBS (2013k).

% = percent.

3.4.4 Mining Employment

3.4.4.1 Mining in the Northwest Territories

The NWT diamond mining industry's employment record is shown in Figure 3.4-1. Over the 16-year period from 1997 to 2012, the industry has created 39,344 person-years²² of employment in the NWT, averaging 2,459 FTE²³ positions annually. This does not imply that, in any given year, an average of 2,459 new positions were added, but rather that, on average, 2,459 positions existed, including those that may have already been in existence from previous years.

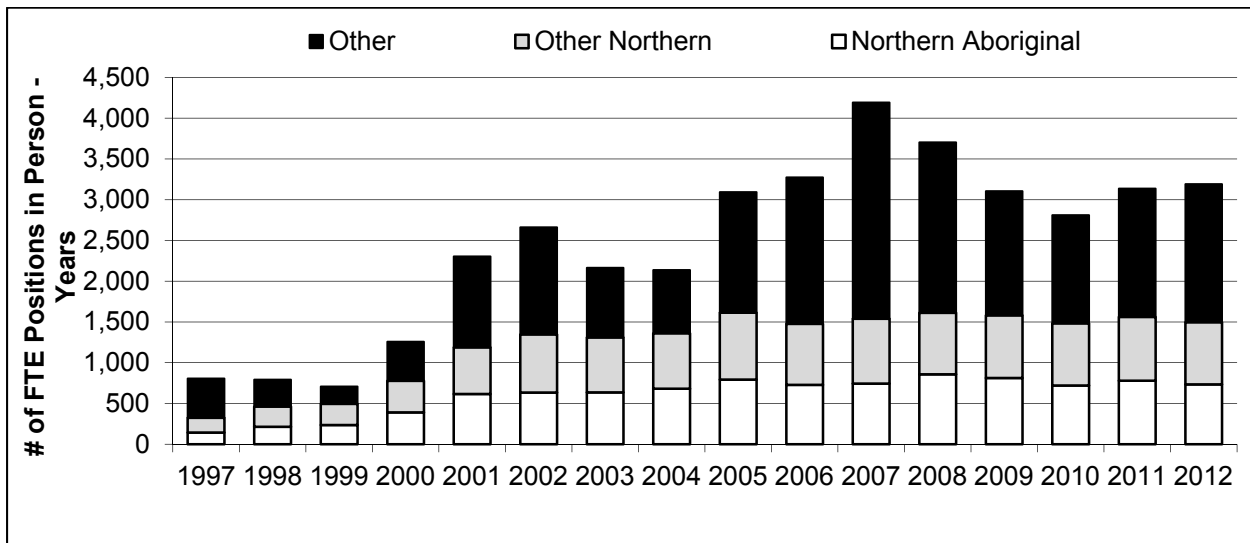
The peak year for employment was 2007, when 4,193 FTE positions existed. During that year, there were 2,127 FTE positions associated with development at the Ekati and Diavik mines, and for the construction of the Snap Lake Mine. A further 2,066 FTE positions were associated with operations at Ekati and Diavik mines.

²² A person-year of employment is equivalent to 2,000 hours of labour per year.

²³ A FTE position works 2,000 hours per year, but is different from person-years. While both are based on a 2,000 hour work year, one FTE position may last for multiple years, and so result in multiple person-years of employment.

The NWT's contribution to the diamond industry workforce has held steady at just over 1,500 person-years per year since 2005. From 2005 to 2012, the average NWT workforce participation has been 1,544 person-years (± 56) per year. The split between Aboriginal and non-Aboriginal resident participation has also been consistent, averaging 771 person-years per year for Aboriginal²⁴ residents and 774 person-years for non-Aboriginal residents.

Figure 3.4-1 Total Diamond Mining Industry Employment, Person-Years, 1997 to 2012



Sources: De Beers (2008, 2009, 2010, 2011, 2012, 2013a,b); BHP Billiton (2008, 2009, 2010, 2011, 2012); Dominion Diamond (2013a); Rio Tinto (2008, 2009, 2010, 2011, 2012, 2013).

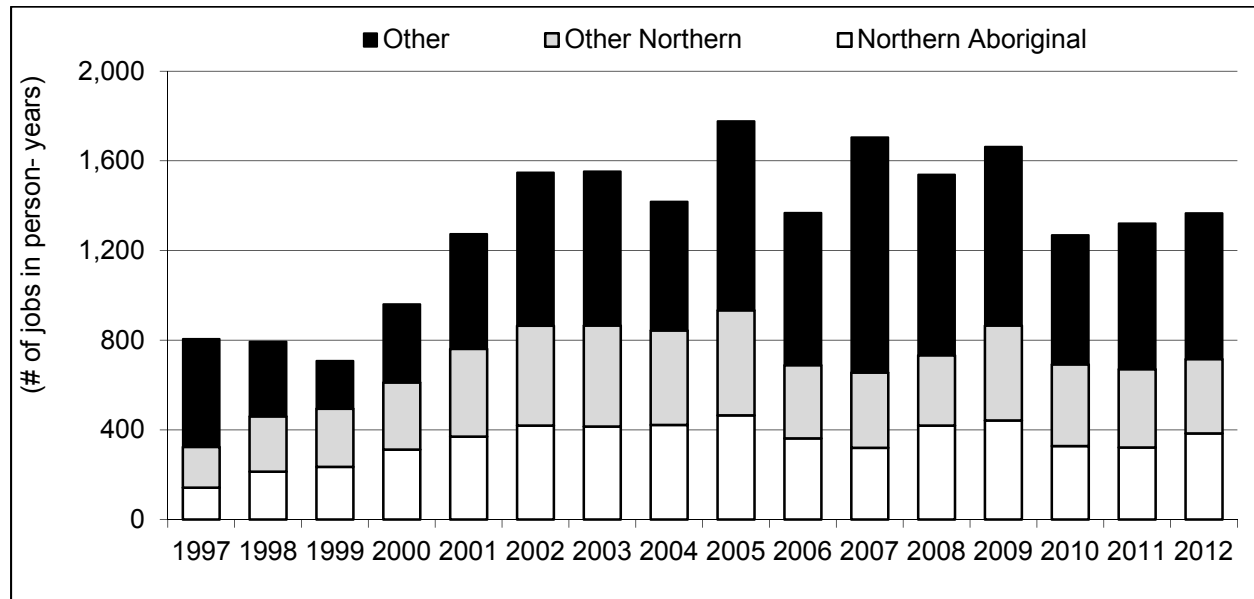
= number; FTE = full-time equivalent.

3.4.4.2 Ekati's Existing Employment

Direct employment at the Ekati Mine has totalled 21,070 person-years from 1997 to 2012, or, on average, 1,316 FTE positions per year (Figure 3.4-2). Between 2008 and 2012, average annual employment has been slightly higher at 1,432 FTE positions. Northern Aboriginal and other Northern residents have contributed 11,171 person-years of labour to the mine since its development. Over the past five years, the average annual participation of Northern and Northern Aboriginal residents in the Ekati Mine workforce has been 735 person-years, representing 51% of the mine's personnel.

²⁴ Aboriginal workforce includes Inuit from the Kitikmeot region of Nunavut in addition to NWT residents identifying themselves as First Nation, Inuit, or Métis. Aboriginal identification is optional on the mine employee surveys that are administered by the respective mine owners.

Figure 3.4-2 Employment at Ekati Mine, Employees and Contractors, Person-Years



Sources: BHP (1997, 1998, 1999, 2000); BHP Billiton (2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012); Dominion Diamond (2013a).
= number.

In 2012, FTE employment at the Ekati Mine totalled 1,367, with 715 (52.3%) of those FTEs filled by Northern residents (Aboriginal and non-Aboriginal) (Table 3.4-5). Dominion Diamond employs most of the overall workforce at 845 (61.8%), while contractors employ the remaining 522 (38.2%) FTE positions. Employment by skill level and priority group, divided between Ekati Mine staff and contractor staff, is also provided in Table 3.4-5. Dominion Diamond employed 171 professionals, 327 skilled workers, 312 semi-skilled workers, and 35 entry-level workers on a full-time basis in 2012. Contractors employed 25 professionals, 196 skilled workers, 186 semi-skilled workers, and 115 entry-level workers on a full-time basis in 2012 (the most recent year for which data were available at the time the baseline was written).

Table 3.4-5 Employment by Priority Group, and by Priority Group and Skill Level, 2012

Employment by Priority Group (Person-Years)									
Employer	Northern Aboriginal		Other Northern		Subtotal Northern		Other		Grand Total
	#	%	#	%	#	%	#	%	#
Dominion Diamond	267	31.6	225	26.6	492	58.2	353	41.8	845
Contractors	117	22.4	106	20.3	223	42.7	299	57.3	522
Total	384	28.1	331	24.2	715	52.3	652	47.7	1,367
Dominion Diamond Ekati Mine Employment by Skill Level (Person-Years)									
Category	Northern Aboriginal		Other Northern		Subtotal Northern		Other		Grand Total
	#	%	#	%	#	%	#	%	#
Professional	11	6.4	73	42.7	84	49.1	87	50.9	171
Skilled	39	11.9	87	26.6	126	38.5	201	61.5	327
Semi-skilled	190	60.9	57	18.3	247	79.2	65	20.8	312
Entry level	27	77.1	8	22.9	35	100.0	0	0.0	35
Total	267	31.6	225	26.6	492	58.2	353	41.8	845
Contractor Employment by Skill Level (Person-Years)									
Category	Northern Aboriginal		Other Northern		Subtotal Northern		Other		Grand Total
	#	%	#	%	#	%	#	%	#
Professional	2	8.0	6	24.0	8	32.0	17	68.0	25
Skilled	12	6.1	37	18.9	49	25.0	147	75.0	196
Semi-skilled	42	22.6	39	21.0	81	43.5	105	56.5	186
Entry level	61	53.0	24	20.9	85	73.9	30	26.1	115
Total	117	22.4	106	20.3	223	42.7	299	57.3	522

Source: Dominion Diamond (2013a).

= number; % = percent.

Ekati Mine employment data by community is available for 2013. In 2013, 47.1% (385 employees) of the Ekati Mine's workforce came from LSA communities, most of whom reside in Yellowknife (282 people or 73.2% of the workforce sourced from the LSA) (Table 3.4-6). Of the small LSA communities, Behchokò provides the largest number of employees to the mine (57, or 7% of the total). A further 12.9% (105 employees) came from other northern locations. The remaining 40.0% (327) of employees came from southern locations in Canada, most prominently Alberta (16.0% or 131 employees) and British Columbia (14.9% or 122 employees).

Table 3.4-6 Ekati Mine Employment by Community, 2013

Community	Active Employees	Employees on Leave	Total	
			#	%
LSA Communities				
Yellowknife	267	15	282	34.5
Behchokò	49	8	57	7.0
Fort Resolution	3	1	4	0.5
Gamètì	13	1	14	1.7
Lutsel K'e	2	0	2	0.2
Wekweètì	5	0	5	0.6
Whatì	12	1	13	1.6
Kugluktuk	8	0	8	1.0
Total	359	26	385	47.1
Other Northern Communities				
Déline	5	0	5	0.6
Enterprise	1	0	1	0.1
Fort Good Hope	1	0	1	0.1
Fort McPherson	1	0	1	0.1
Fort Providence	5	0	5	0.6
Fort Simpson	3	1	4	0.5
Fort Smith	28	1	29	3.5
Hay River	47	3	50	6.1
Inuvik	3	0	3	0.4
Norman Wells	3	0	3	0.4
Tsiigehtchic	1	0	1	0.1
Tulita	1	0	1	0.1
Wrigley	1	0	1	0.1
Total	100	5	105	12.9
Southern Locations				
Alberta	122	9	131	16.0
British Columbia	115	7	122	14.9
Manitoba	1	0	1	0.1
New Brunswick	7	0	7	0.9
Newfoundland	8	2	10	1.2
Nova Scotia	9	0	9	1.1
Saskatchewan	14	1	15	1.8
Ontario	27	0	27	3.3
Quebec	5	0	5	0.6
Total	308	19	327	40.0
Grand Total	767	50	817	100.0

Source: Arychuk (2014b).

= number; % = percent; LSA = local study area.

In 2013, the turnover rate at the Ekati Mine was 13.7%, most of which was generated by resignations (70%) and retirements (11%) (Table 3.4-7). The remaining causes of employment termination are detailed in Table 3.4-7.

Table 3.4-7 Employment Terminations by Type, 2013

Termination Type	Number
Abandonment of employment	1
Dismissal	9
Death	1
Resignation	73
Retrenchment	2
Retirement	12
Redundancy	4
Mutual agreement	3
Total	105
Turnover rate	13.7%

Source: Arychuk (2014b).

% = percent.

3.4.5 Incomes

3.4.5.1 *Incomes in the Regional and Local Study Areas*

Between 2005 and 2010, the median individual income in the NWT grew by 26.2% to \$44,186 (Table 3.4-8). In Yellowknife, the growth was even higher with individual median incomes rising 32.0% to \$58,832. While median individual incomes grew in all LSA communities, the actual growth varied. In Behchokò (16.6%), Lutsel K'e (25.9%), Whatì (19.8%), and Kugluktuk (19.1%), median incomes grew by less than in the NWT as a whole. These communities also have the lowest median individual incomes at less than half those of the NWT as a whole (i.e., less than \$22,000). Conversely, in Fort Resolution and Gamètì, median individual incomes increased by amounts much larger than the NWT (36.5% and 64.5%, respectively). These communities also have the highest median individual incomes of all LSA communities.

Market income (i.e., wages, trade, and investments) comprises over 90% of the median individual incomes in the NWT and Yellowknife, while government transfers account for less than 10% of median income composition (Table 3.4-8). The trend is similar in the small LSA communities, where market income and government transfers make up 80% to 85% and 15% to 20%, respectively, of the median individual incomes. The average taxes paid on incomes (as a percentage of the total) are slightly lower in the small LSA communities (i.e., 12% to 15%) than in Yellowknife or NWT (i.e., 16% to 17%).

Table 3.4-8 Incomes in the Local Study Area, 2005 to 2010

Community	Total Population 15 Years and Over With Income (2010)	Individual Incomes							Household Incomes		
		Median Income, 2005 (\$)	Median Income, 2010 (\$)	Change, 2005-2010 (%)	Composition		Taxation		Median Income, 2005 (\$)	Median Income, 2010 (\$)	Change, 2005-2010 (%)
					Market Income, 2010 (%)	Government Transfers, 2010 (%)	Income Taxes Paid (% total)	After Tax Income (% total)			
Behchokq	1,180	17,536	20,452	16.6	84.0	16.2	14.5	85.9	59,264	83,114	40.2
Dettah	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fort Resolution	350	18,144	24,759	36.5	82.1	16.5	13.4	85.6	45,611	53,130	16.5
Gamèti	170	14,752	24,270	64.5	81.4	17.7	12.3	85.2	37,333	74,032	98.3
Lutsel K'e	200	16,960	21,358	25.9	82.7	18.1	13.7	86.4	32,704	43,185	32.0
Wekweèti	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Whatì	330	14,496	17,371	19.8	81.9	18.0	12.6	87.3	49,856	64,774	29.9
Yellowknife	14,405	44,567	58,832	32.0	95.4	4.6	17.4	82.6	100,468	123,464	22.9
Kugluktuk	915	18,336	21,842	19.1	82.7	17.6	12.2	87.8	54,976	59,809	8.8
NWT	30,265	35,006	44,186	26.2	92.3	7.7	16.4	83.6	80,085	99,127	23.8

Sources: Statistics Canada (2011a,c).

% = percent; \$ = Canadian dollars; NWT = Northwest Territories; n/a = not available.

Between 2005 and 2010, the growth in median household incomes was lower than the growth of median individual incomes in the NWT (23.8% to \$99,127), Yellowknife (22.9% to \$123,464), Fort Resolution (16.5% to \$53,130), and Kugluktuk (8.8% to \$59,809) (Table 3.4-8). In the other LSA communities, median household incomes have increased at a greater rate than median individual incomes, suggesting that more members of each household are working.

3.4.5.2 *Incomes at Ekati Mine*

Mining generates high-paying employment opportunities. Incomes paid at the Ekati Mine are higher than the median individual incomes of the NWT. In 2013, entry-level positions such as labourers and maintenance assistants had a midpoint annual salary range^{25, 26} of \$60,000 to \$65,000. Semi-skilled positions such as equipment and truck operators earned a midpoint annual salary range of \$56,000 to \$94,000, while skilled positions (i.e., tradespeople, technicians, and engineers) earned between \$68,000 and \$93,000 per year (midpoint). Professional positions (i.e., team leaders, senior advisors, and supervisors) earned a midpoint annual salary of \$101,000 to \$123,500, and executive professionals (i.e., superintendents, managers, and section heads) were paid \$137,500 to \$185,000 (Tables 3.4-9 and 3.4-10). These ranges include both unionized (Table 3.4-9) and non-unionized (Table 3.4-10) positions.

Table 3.4-9 Wages (Midpoint) for Unionized Positions, by Range and Skill Level at Ekati Mine, 2013

Range	Midpoint (\$)	Skill Level	Example Positions
1	60,306	Entry level	Waste management assistant, labourer
2	64,772		Maintenance assistant
3	66,234	Semi-skilled	Underground equipment operator support, batch plant operator
4	67,007		Underground and equipment truck operator
5	73,706	Skilled	Airport technician, travel assistant, waste water treatment technician
6	75,066	Semi-skilled	Underground construction miner
7	78,173		Logistics technician, equipment operator – utility 1, tool crib technician
8	80,408		None
9	81,523	Skilled	Loader operator, warehouse technician, equipment operator – utility 2
10	82,641		Process plant technician
11	84,560	Semi-skilled and skilled	Underground equipment operator (bolter, solo drill), underground blaster
12	88,225	Skilled	Journeyman, mass excavator operator
13	91,575		Communications technician, process control technician
14	93,944	Semi-skilled	Underground jumbo operator

Source: Arychuk (2014b).

\$ = Canadian dollars.

²⁵ A midpoint is the 50% mark for a salary band. The lowest end of the band is 50% below the midpoint, while the highest end is 50% above.

²⁶ Within each skill category (i.e., entry level, semi-skilled, skilled, and professional), there are multiple salary bands, each with a unique midpoint. The ranges reported here include the lowest and the highest midpoint in each respective skill category.

Table 3.4-10 Wages (Midpoint) for Non-Unionized Positions, by Range and Skill Level at Ekati Mine, 2013

Range	Midpoint (\$)	Skill Level	Example Positions
H1	56,000	Semi-skilled	Administrative assistant, human resources trainee
H2	68,000	Skilled	Community relations, executive assistant, security
G1	83,607		Engineering technician, surveyor, health and safety advisor
G2	93,000		Environmental advisor, engineer, geologist
G3	101,000	Professional	Team leader, senior environmental advisor
G4	108,000		Team leader, senior planner, chief electrician
G5	123,500		Team leader, supervisor
F1	137,500		Superintendent (corporate positions)
F2	153,000		Superintendent (mining and planning positions)
E1	185,000		Section head, manager (engineering)

Source: Arychuk (2014b).

\$ = Canadian dollars.

3.5 Education

3.5.1 Educational Attainment

In 2011, 31,750 people over the age of 15 lived in the NWT, with slightly less than half of them located in the Yellowknife area (Statistics Canada 2011a) (Table 3.5-1).

In the NWT, many residents over the age of 15 have no certificate, diploma, or degree (31.1%), while those with a high school diploma (20.6%) and a non-university certificate/diploma (18.3%) make up smaller portions of the population (Statistics Canada 2011a).

Yellowknife has the highest percentage of educational attainment in every educational attainment measure for the LSA communities, with the exception of apprenticeship and trades (Statistics Canada 2011a). In Yellowknife, nearly a quarter of residents over the age of 15 have a high school diploma (23.9%) as their highest level of education, while one-fifth have a non-university certificate or diploma (19.7%). Almost one-fifth (18.0%) of the population has no certificate, diploma, or degree (Statistics Canada 2011a).

In the small LSA communities, the majority of residents aged 15 and over (50.7% to 67.6%) have not attained a certificate, diploma, or degree (Statistics Canada 2011a). This percentage is higher than Yellowknife (18.0%) and the NWT (31.1%). However, the LSA communities do have a higher portion of the population in possession of a trade or apprenticeship certificate or diploma (7.0% to 16.4%). The LSA communities with the highest percentages of apprenticeship and trade certification are Fort Resolution (16.4%), Wekweètì (15.8%), and Whatì (11.6%) (Statistics Canada 2011a).

Table 3.5-1 Highest Educational Attainment for the Total Population Aged 15 Years and Over in the Local Study Area Communities, 2011

Community	Total Population Aged 15 Years and Over	No Certificate, Diploma or Degree		High School Diploma or Equivalent		Apprenticeship or Trades Certificate or Diploma		College, CEGEP or Other Non-university Certificate or Diploma		University Certificate or Diploma Below a Bachelor Level		Bachelor's Degree		University Certificate, Diploma or Degree Above a Bachelor Level	
	#	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Behchokq	1,275	730	57.3	175	13.7	35	10.6	140	11.0	20	1.6	60	0	15	1.2
Dettah	155	85	54.8	20	12.9	15	9.7	20	12.9	0	0.0	0	0.0	0	0.0
Fort Resolution	n/a	185	50.7	40	11.0	60	16.4	55	15.1	0	0.0	15	4.1	10	2.7
Gamèti	185	125	67.6	15	8.1	20	10.8	15	8.1	0	0.0	0	0.0	0	0.0
Lutsel K'e	215	125	58.1	20	9.3	15	7.0	25	11.6	0	0.0	10	4.7	10	4.7
Wekweèti	95	55	57.9	10	10.5	15	15.8	10	10.5	0	0.0	n/a	0.0	0	0.0
Whati	345	215	62.3	40	11.6	40	11.6	35	10.1	0	0.0	10	2.9	0	0.0
Yellowknife	15,025	2,710	18.0	3,595	23.9	1,370	9.1	2,955	19.7	460	3.1	2,790	18.6	1,150	7.7
Kugluktuk	965	555	57.5	95	9.8	80	8.3	45	15.0	10	1.0	50	5.2	25	2.6
NWT	31,750	9,860	31.1	6,525	20.6	3,190	10.0	5,810	18.3	725	2.3	4,005	12.6	1,640	5.2

Source: Statistics Canada (2011a).

= number; % = percent; NWT = Northwest Territories; CEGEP = General and Vocational College; n/a = not available.

Though lower than the NWT and Yellowknife, the small LSA communities also have a noticeable portion (8.1% to 15.1%) of their populations with a college diploma. Small portions of these communities also possess a university certificate, bachelor's degree, or graduate degree (Statistics Canada 2011a). This percentage is higher than Yellowknife (9.1%) and the NWT (10.0%). Yellowknife's attainment of apprenticeship and trades certification is lower than most of the other LSA communities, and is lower than the provincial attainment rate (Statistics Canada 2011a).

The educational attainment levels for the Aboriginal population aged 15 and over in the LSA are similar to the results reported for the total population (Statistics Canada 2011b) (Table 3.5-2) because Aboriginal people constitute the majority of the LSA communities with the exception of Yellowknife (Statistics Canada 2011a,b). A higher percentage of Aboriginals aged 15 and over in Yellowknife attained a high school diploma, and most other levels of higher education compared to the other LSA communities (Statistics Canada 2011b). However, achievement of apprenticeship or trade certification in the RSA was highest in Fort Resolution (15.4%), followed by Behchokǫ (11.1%), and Whati (10.9%). These percentages were higher than the levels reported in Yellowknife (7.7%) and the NWT (9.6%) (Statistics Canada 2011b).

Among the smaller communities outside of Yellowknife, Fort Resolution had the highest percentage within the Aboriginal population aged 15 years and over with a bachelor's degree at 3.1% (Statistics Canada 2011b). This percentage falls well below Yellowknife (8.4%) and is slightly below the NWT (3.3%).

Educational attainment for Aboriginals aged 15 and over in the LSA communities parallels the results for the LSA's total populations aged 15 and over. A high percentage of the Aboriginal population aged 15 years and over in the LSA communities do not have a certificate, diploma, or degree, which limits them from attaining further education and the employment opportunities that are associated with higher education.

Several factors contribute to the educational achievement gaps between Aboriginal and non-Aboriginal students, including issues such as absenteeism, relative newness of the kindergarten to Grade 12 (K-12) education system in some communities, and limited employment opportunities (GNWT-ECE 2011). In 2011, it was estimated that the average Aboriginal student in the NWT missed over 41 days of school each year (GNWT-ECE 2011). Cumulatively, by the end of Grade 9, the average NWT Aboriginal student has missed two years of schooling, which is more than twice the amount of schooling that other students miss (GNWT-ECE 2011). Another factor may be that limited employment opportunities may be a disincentive towards higher levels of education (GNWT-ECE 2011).

Table 3.5-2 Educational Attainment for the Aboriginal Identity Population Aged 15 Years and Over for the Local Study Area Communities

Community	Aboriginal Identity Population Aged 15 Years and Over	No Certificate, Diploma or Degree		High School Diploma or Equivalent		Apprenticeship or Trades Certificate or Diploma		College, CEGEP or Other Non-university Certificate or Diploma		University Certificate or Diploma Below a Bachelor Level		Bachelor's Degree		University Certificate, Diploma or Degree Above a Bachelor Level	
	#	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Behchokò	1,175	725	61.7	170	14.5	130	11.1	130	11.1	10	0.9	15	1.3	0	0.0
Dettah	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fort Resolution	325	180	55.4	35	10.8	50	15.4	50	15.4	0	0.0	10	3.1	0	0.0
Gamètì	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Lutsel K'e	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Wekweètì	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Whatì	320	210	65.6	45	14.1	35	10.9	30	9.4	0	0.0	0	0	0	0.0
Yellowknife (metropolitan areas)	3,230	1,140	35.3	745	23.1	250	7.7	645	20.0	105	3.3	270	8.4	80	2.5
Kugluktuk	855	550	64.3	90	10.5	80	9.4	125	14.6	10	1.2	10	1.2	0	0.0
NWT	15,115	7,710	51.0	2,670	17.7	1,445	9.6	2,425	16.0	220	1.5	500	3.3	130	0.9

Source: Statistics Canada (2011b).

n/a = not available; # = number; % = percent; NWT = Northwest Territories; CEGEP = General and Vocational College.

To address this educational achievement gap, the *Aboriginal Student Achievement Education Plan* (GNWT-ECE2011) set out four goals:

- **Early childhood development and care** – develop early childhood programs, services, and initiatives that optimize the healthy development of Aboriginal children;
- **Student and family support** – provide a variety of support services for Aboriginal students and families to ensure academic success;
- **Aboriginal language and culture curriculum and resource development** – support Aboriginal students in reaching their full potential by becoming proficient in their Aboriginal language and strong in their culture; and,
- **Literacy** – eliminate the literacy gap between Aboriginal and other students.

To address the issue of school attendance from kindergarten to Grade 12, the plan aims to provide support for schools to increase school attendance and raise awareness of the importance of attendance (GNWT-ECE 2011). In addition, a best practices resource on increasing attendance will be completed in consultation with schools and school boards. Lastly, the plan committed to conducting further investigation and research on the effect of bullying on student attendance in the NWT (GNWT-ECE 2011).

3.5.2 Education Services and Infrastructure

The Government of Northwest Territories – Department of Education, Culture and Employment (GNWT-ECE) administers education in the NWT. Based on the strategic plan for 2005 to 2015, the GNWT-ECE has five long-term strategic objectives:

- foster pride in culture;
- educate youth and children;
- educate adults;
- provide skill development; and,
- facilitate the full participation of people in society (GNWT-ECE 2005).

The GNWT-ECE offers public and Catholic schooling options, as well as French schools and immersion programs in Yellowknife. Teacher certification and school curriculums are determined by the GNWT-ECE. District education authorities and district education councils manage the coordination and support of educational programs and services in the communities (GNWT-ECE 2014a). In general, levels of educational attainment in the NWT have been steadily increasing over the years.

3.5.2.1 School Districts

The NWT has eight educational jurisdictions that are managed by education boards and councils, district education authorities, and district education councils. These boards oversee the management, administration, and implementation of curricula and programs. The designated education jurisdictions managing the LSA communities are summarized in Table 3.5-3.

Table 3.5-3 Educational Boards and the Local Study Area Communities, 2014

Northwest Territories Education Boards	Communities
South Slave Divisional Education Council	Fort Resolution, Lutsel K'e
Tłıchq Community Services Agency	Gamèti, Behchokq, Whati, Wekweèti
Yellowknife Catholic Schools	Dettah, Yellowknife, N'Dilo
Yellowknife Education District No. 1	
Montessori School	
Commission scolaire francophone, Territoires du Nord-Ouest	Yellowknife
Kitikmeot School Operations	Kugluktuk

Sources: Northwest Territories Teachers' Association (2014); data for Kugluktuk is from Kitikmeot School Operations (2014).

3.5.2.2 Teachers

In 2014, 388 teachers were employed in the LSA communities of the NWT; over three-quarters (295) worked in Yellowknife schools (Northwest Territories Teachers' Association 2014). The number of teachers and school administrators employed in each LSA community is listed in Table 3.5-4.

Table 3.5-4 Total Number of Teachers and School Administrators, Local Study Area Communities, 2014

Community	Total Number of Teachers and School Administrators
Behchokq	41
Dettah	3
Fort Resolution	12
Gamèti	5
Lutsel K'e	10
N'Dilo	8
Wekweèti	3
Whati	11
Yellowknife	295
Kugluktuk	n/a

Source: Northwest Territories Teachers' Association (2014).

Note: Numbers for Yellowknife include teachers, school administrators, and education assistants. Numbers do not include counsellors, administrative staff, or language specialists. Umingmaktok and Bathurst Inlet have not been included, as there are no schools in these communities.

n/a = not available.

High teacher turnover is a problem in the NWT, and can negatively affect student commitment, achievement, and school programming (GNWT-ECE 2007). In addition, it creates a burden on local and regional administration, reduces community confidence in schools, and impacts the education system as a whole. When out of province teachers are hired, there are high annual removal costs, as well as costs for orientation to the environment and culture (GNWT-ECE 2007).

To address the issue of teacher retention, the GNWT's Department of Education has a Teacher Induction and Mentorship Program, designed to support new teachers in their first year teaching in the North (GNWT-ECE 2014b). The GNWT states that the first year of teaching is predictive of success and retention in the career (New Teachers NWT 2014). The teacher induction program has benefits such as improvement of teacher retention and increased job satisfaction and personal and professional well-being (New Teachers NWT 2014). The program involves four phases that have detailed activities and resources and involve systematic sustained support and professional development (New Teachers NWT 2014).

The *Strategy for Teacher Education in the NWT 2007 – 2015* emphasizes the need for more Aboriginal educators and how this increase could improve the teacher retention rate (GNWT-ECE 2007). This strategic plan identifies opportunities and options for an effective teacher education program that aims to attract and retain Aboriginal students through to graduation (GNWT-ECE 2007).

3.5.2.3 *Early Childhood and Day Care Programs*

Early childcare programs and daycare are an important part of child development and family life, providing childcare support to parents seeking access to education and/or employment (GNWT-ECE 2014c). The NWT *Framework for Early Childhood Development: Right From the Start* (GNWT-ECE 2013a) helps guide the GNWT's investment in programs and services that are designed to improve early childhood development outcomes. The goal of the framework is to ensure access for NWT residents to high-quality, comprehensive, integrated early childhood development programs and services that are culturally driven, sustainable, and culturally relevant (GNWT-ECE 2013a).

The NWT permits unregulated and regulated childcare. Unregulated childcare, or family childcare, allows a ratio of up to four children per caregiver, including the caregiver's own children up to the age of 12 (GNWT-ECE 2013b). Regulated childcare consists of childcare centres, nursery schools, and family day homes. Childcare centres are usually run by a caretaking professional who provides group care of children and supervision of five or more children up to age 12. Nursery schools are designed for children under six years of age who will spend four consecutive hours or less per day. Family day homes are designed for up to eight children under the age of 12 years, including the caregiver's own children.

In 2010, the NWT had 59 childcare centres with 1,385 available spaces, and 49 licensed family day homes with 400 available spaces for children (Table 3.5-5) (Childcare Resource and Research Unit 2013). Compared to 2008, the total number of centres in the NWT has decreased, with the number of childcare centres decreasing and the number of family day homes staying constant. While the number of centres has gone down, the number of spaces has increased.

Table 3.5-5 Available Licensed Childcare Spaces, Northwest Territories, 2008 and 2010

Centres	Number of Centres		Spaces Available	
	2008	2010	2008	2010
Childcare centres	67	59	0	0
Family day homes	50	49	0	0
Total number	117	108	0	0
Childcare Centres				
Infant spaces (under 2 years)	0	0	130	126
Preschool spaces (2 to 5 years)	0	0	785	803
After-school spaces (6 to 12 years)	0	0	453	456
Total child care centre spaces	0	0	1,368	1,385
Family Day Homes				
Infant spaces (under 2 years)	0	0	100	98
Preschool spaces (2 to 5 years)	0	0	200	204
After-school spaces (6 to 12 years)	0	0	100	98
Total family day home spaces	0	0	400	400

Sources: Childcare Resource and Research Unit (2008, 2013).

Notes: Nursery programs are not included in these statistics; 2012 data are not available; 2010 data are sourced from Early Childhood Development (2012).

Currently no licensed after-school care programs operate during the summer months in the NWT. Summer childcare is limited. In addition, there are no childcare programs specifically designated for children with special needs in the NWT (Childcare Resource and Research Unit 2013). However, financial assistance is available for parents and caregivers of special needs children.

In Kugluktuk, Kakayak Day Care and the Kugluktuk Preschool provide early childhood services to the community (Government of Nunavut 2013). In addition, there is a prenatal centre that provides a nutrition program and teaches healthy cooking and living skills to parents (Kitikmeot Regional Gathering Report 2012).

3.5.2.3.1 Aboriginal Head Start Program

Health Canada funds the Aboriginal Head Start Program, a preschool program for First Nations, Inuit, and Métis living in urban areas and large northern communities. The program aims to meet the spiritual, intellectual, and physical needs of Aboriginal preschoolers between the ages of three and five.

There are eight Aboriginal Head Start Program centres throughout the NWT, with centres in the LSA communities of Yellowknife, Behchokō, and Kugluktuk (Public Health Agency of Canada 2013). The program has six components:

- Aboriginal culture and language;
- education and school readiness;
- health promotion;

- nutrition;
- social support; and,
- parental and family involvement (NWT Aboriginal Head Start 2014a).

The centres are locally designed, managed, and administered by local non-profit Aboriginal organizations and involve parents within the community. In addition to parental involvement, elders' involvement plays a key role in the program's success. Elders are invited to visit the centres throughout the year to teach preschoolers about traditional skills (NWT Aboriginal Head Start 2014b).

3.5.2.4 *Kindergarten to Secondary School (Overview)*

Kindergarten attendance is not mandatory in the NWT (GNWT–ECE 2014b). Schooling is mandatory in the NWT for children aged 6 to 15, and enrollments for Grades 1 through 9 are reflective of the number of children in this age cohort (GNWT-ECE 2013c). Primary school in the NWT is composed of Grades 1 to 6, junior high consists of Grades 7 to 9, and secondary school (high school), consists of Grades 10 to 12. Grade extensions are available in many NWT communities, where students are able to attend school longer in their home communities through the delivery of additional grades within existing local schools (GNWT-ECE 2011). Students seeking further education in communities lacking grade extensions are required to travel outside of their communities.

The LSA schools and their respective grade levels are listed in Table 3.5-6.

Table 3.5-6 Kindergarten to Grade 12 Schools Within the Regional Study Area

Community	School	Type of School
Behchokq	Chief Jimmy Bruneau	K-12
Behchokq	Elizabeth MacKenzie Elementary	K-6
Dettah	Kaw Tay Whee School	K-6 First Nations Community School
Fort Resolution	Deninu School	K-12
Gameti	Jean Wetrade Gameti	K-12
Lutsel K'e	Lutsel K'e Dene School	K-12
N'Dilo	K'alemi Dene School	K-12 First Nations Community School
Wekweeti	Alexis Arrowmaker	K-9
Whati	Mezi Community	K-12
Yellowknife	École Alain St-Cyr	K-12
Yellowknife	École J.H. Sissons	K-5; Preschool French Immersion
Yellowknife	École Sir John Franklin High School	9-12
Yellowknife	École William McDonald Middle School	6-8 French Immersion
Yellowknife	Mildred Hall School	K-8; Preschool
Yellowknife	N.J. Macpherson School	K-5; Preschool to 6
Yellowknife	Range Lake North School	K-8; Preschool
Yellowknife	École St. Patrick High School	9-12 Catholic
Yellowknife	École St. Joseph School	K-8 Catholic French Immersion
Yellowknife	Weledah Catholic School	K-8 Catholic
Yellowknife	Yellowknife Montessori School	K-3
Bathurst Inlet	n/a	n/a
Kugluktuk	Jimmy Hikok Ilihakvik	K-6
Kugluktuk	Kugluktuk High School	7-12
Umingmaktok	n/a	n/a

Sources: Northwest Territories Teachers' Association (2014); Yellowknife Education District No. 1 (2013); Northwest Territories Montessori Society (2014); Tłı̄chq̓ (2013); Lutsel K'e Dene School (2014); Kitikmeot Inuit Association (2014).

Note: Students in Dettah are bussed to Yellowknife for high school.

n/a = not available; K = kindergarten.

3.5.2.4.1 Enrollment

In 2013, 8,409 students were enrolled from kindergarten to Grade 12 in the NWT (Table 3.5-7). The total number of students in the NWT decreased 14.8% from 2003. However, changes in enrollment within the LSA varied. Yellowknife, Fort Resolution, Lutsel K'e, and Kugluktuk experienced decreases in enrollment from 2003 to 2013, with enrollment in Lutsel K'e decreasing the most by 29.2% (GNWTBS 2013).

Behchokò and Whatì experienced modest increases from 2003 to 2013 at 8.2% and 0.7%, respectively; however, a large increase (16.6% or 94 students) occurred in Behchokò between 2005 and 2006 (GNWTBS 2013I). The other LSA communities had considerably larger increases in enrollment, with increases of 54.2% in Wekweètì, 30.2% in Dettah, and 17.3% in Gamètì (GNWTBS 2013I).

Table 3.5-7 Total Enrollment in Northwest Territories Schools Kindergarten to Grade 12, 2003 to 2013

Community	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Change From 2003 to 2013 (%)
Behchokò	558	585	563	657	658	613	567	631	604	581	604	8.2
Dettah	43	71	85	75	78	77	71	65	53	63	56	30.2
Fort Resolution	131	127	129	134	122	124	110	118	102	114	107	-18.3
Gamètì	75	85	83	82	71	75	78	63	82	70	88	17.3
Lutsel K'e	89	93	92	78	81	83	102	95	81	54	63	-29.2
Wekweètì	24	30	28	31	28	30	27	27	30	27	37	54.1
Whatì	141	132	146	144	128	124	123	124	144	142	142	0.7
Yellowknife	3,906	3,903	3,836	3,776	3,725	3,645	3,505	3,366	3,406	3,487	3,433	-12.1
Kugluktuk ^(a)	372	345	354	329	371	353	325	292	326	337	n/a	-9.4 ^(b)
Northwest Territories	9,872	9,727	9,608	9,572	9,324	9,048	8,737	8,550	8,576	8,509	8,409	-14.8

Source: GNWTBS (2013I).

Note: Information for N'Dilo was unavailable.

a) Source for Kugluktuk is NBS (2013).

b) Percentage change for Kugluktuk is from 2003 to 2012.

n/a = not available; % = percent.

3.5.2.4.2 *Programming and Curricula*

The GNWT-ECE is responsible for setting overall standards for the NWT curricula. It oversees the educational boards that administer schooling to children attending K-12. Students attending regular classroom settings in the NWT must follow one of the three following programs (GNWT-ECE 2013c):

- **Regular programming** is based on the learning outcomes articulated in the NWT curricula for a specific grade level or courses. Programs with accommodations for difficulties or enrichment are to be documented in a Student Support Plan.
- **Modified programming** retains the learning outcomes as articulated in the NWT curricula; however, these are modified to reflect a level other than the assigned grade level. This program is established on a student's strengths, needs, and interests, and is usually defined by a collaborative process.
- **Individual education programming** is determined through a collaborative process and is determined by the strengths and challenges of individual students, which may or may not express the learning outcomes of the NWT curricula.

Students following these programs may have a variety of accommodations to help them meet their program's learning outcomes (GNWT-ECE 2013c).

During the 2012 to 2013 school year, an integrated kindergarten curriculum was piloted across the NWT. The curriculum was relationship and culture based, and included play-based and inquiry-based learning (GNWT-ECE 2012).

3.5.2.4.3 *Culture and Language Programming*

Considering the cultural diversity of the NWT, educational programming reflects a distinctly NWT perspective (GNWT-ECE 2013c). Under the *NWT Official Languages Act*, the NWT is the only jurisdiction in Canada that officially recognizes Aboriginal languages (GNWT-ECE 2014a). The GNWT-ECE created culture-based education programs, the Dene Kede and Inuuqatigiit programs, which incorporate language and culture of the Dene and Inuit people. These two curricula incorporate the Aboriginal worldview and intend to involve students in key experiences on the land and in school (GNWT-ECE 2013c). Bilingual educational programs include first language, second language, and immersion language programs in one or more of the 11 official languages.

3.5.2.4.4 *Career Programming*

Career development is an important component of the NWT school curriculum. From kindergarten through Grade 12, the foundation for a career is developed through school programming and the infusion of career awareness throughout other curricula (GNWT-ECE 2013c). Students from elementary to junior high school are given a Career and Program Plan to guide their career development. The Career and Program Plan is a required credit course for graduation that allows students to choose appropriate courses for future career opportunities (GNWT-ECE 2013c).

3.5.2.4.5 *Job Futures Program*

The NWT Job Futures Program assists interested individuals identify and select potential careers through 140 occupational profiles. The job profiles summarize educational and training requirements, roles and responsibilities, and wages (NWT Job Futures 2014). It also provides an overview of the current labour force conditions and future in-demand occupations. The program is available through school or career counsellors.

3.5.2.4.6 *Other Educational Programming*

Adult students in the NWT can access long-distance education programs through the Alberta Distance Learning Centre and the Sunchild E-Learning Community (GNWT-ECE 2013c). For young and future parents, the Early Childcare Program provides learning opportunities concerning child growth and development. In 2011, recognizing that Aboriginal youth are the fastest growing segment of the NWT population and that there is a substantial gap in educational success between Aboriginal and non-Aboriginal students, the GNWT-ECE launched the *Aboriginal Student Achievement Education Plan*. The plan aims to close the achievement gap between Aboriginal and non-Aboriginal students in the NWT (GNWT-ECE 2011).

Alternative forms of educational programming are available to some students. The Kimberlite Career and Technical Centre offers Catholic school students (Grades 7 to 12 in the Yellowknife Catholic school system, or those who attend Yellowknife District Education Council No.1) opportunities to learn and experience technology and trades (Yellowknife Catholic Schools 2014). Available courses include construction, electronics, small engine mechanics, welding, mechanical systems, manufacturing processes, computer-aided design and drafting, and thermal systems.

The Schools North Apprenticeship Program is a secondary school program for students to become registered apprentices in a designated trade while they are still in high school. Students can earn credits towards their secondary school diploma while working at an employer's job site (GNWT-ECE 2013c).

3.5.2.5 *Post-Secondary Education and Training*

Students in the NWT graduating from secondary school have a variety of options to further their education, such as college, university, and technical training or apprenticeship programs. The GNWT emphasizes skills training and retaining northern graduates through employment, bursary, or other training incentives (GNWT-Human Resources 2014a). Non-government organizations such as Skills Canada NWT provide additional support in the promotion of careers in skilled trades and technologies (Skills Canada NWT 2009).

3.5.2.5.1 *Student Financial Aid*

The NWT Student Financial Assistance Program helps to supplement the cost of post-secondary education for part-time and full-time NWT residents attending accredited post-secondary institutions and programs.

In addition, students who are residents of the NWT can receive additional benefits, bursaries, and incentives. These funding sources include employers, Aboriginal organizations, governments, corporations, unions, service groups, and foundations (GNWT-ECE 2014d).

3.5.2.5.2 *Mine Training Society*

The Mine Training Society (MTS) is a non-profit organization that aims to address the need for training and development of a skilled northern workforce. The MTS's main objective is to assist Aboriginal people in finding employment in the mining industry. The society is a partnership consisting of Aboriginal representatives (Yellowknives Dene First Nation [YKDFN], Tłıchq Government, Łutselk'e Dene First Nation [LKDFN], Kete Whii/Procon Joint Venture, and the North Slave Métis Alliance), the GNWT, and the mining industry. Industry sponsors of MTS training initiatives are Dominion Diamond (Ekati Mine), Avalon Rare Metals, Canadian Zinc Corporation, Diavik Diamond Mines Inc., and De Beers Canada Inc.

Human Resources and Skills Development Canada (under the Aboriginal Skills and Employment Partnership Program), the mining industry, government, and Aboriginal partners provide funding for the MTS. The latest agreement was entered into in late February 2013. Since 2004, the MTS has provided training and/or counselling for over 1,900 northerners, and has placed 830 northerners in high-paying jobs (MTS 2013). In August 2014, the MTS will have a 14-week underground miner training program with Aurora College (MTS 2014).

3.5.2.5.3 *Aurora College*

Aurora College is a post-secondary institution funded in part by the GNWT-ECE. In 2014, it was the only college in the NWT and the primary institution for adult and post-secondary education. Aurora College has three campuses:

- Aurora Campus in Inuvik;
- Thebacha Campus in Fort Smith; and,
- Yellowknife Campus (Aurora College 2014a).

The NWT has 23 Community Learning Centres (CLCs), with seven CLCs serving the LSA communities (Table 3.5-8).

Table 3.5-8 Aurora Campuses and Community Learning Centres for Local Study Area Communities, 2014

Campus	Community
Community Learning Centres	Behchokò
	Dettah/N'Dilo
	Fort Resolution
	Gamètì
	Lutsel K'e
	Wekweètì
	Whatì
Yellowknife Campus	Yellowknife

Source: Aurora College (2014b).

The CLCs are community extensions of the programs and courses offered by Aurora College campuses. The majority of CLCs are staffed with one person, an adult educator, who is responsible for the operation of the learning centre and instruction of the course(s) (Aurora College 2014c).

The CLCs are located in all LSA communities in the NWT. The main purpose of the CLCs is to provide community-based Adult Literacy and Basic Education (ALBE). The ALBE Program is individualized and based on student needs, consisting of six levels of course work, ranging from basic literacy instruction to Grade 12. Part-time and full-time enrollment in ALBE is available. Successful completion of ALBE English and math is the pre-requisite entry into some career, technological, and trades programs (GNWT-ECE 2013d).

The CLCs may offer additional programming to meet community needs, or in partnership with communities and industry. These courses and programs include environmental monitoring, trades access, development studies, and introduction to underground mining. In the LSA communities, introduction to underground mining is offered in Behchokò, Fort Resolution, Dettah/N'Dilo, and Lutsel K'e, while development studies have been offered in Yellowknife, Whatì, Wekweètì, Lutsel K'e, Gamètì, Fort Resolution, and Behchokò (Aurora College 2014c).

Aurora College offers a diverse range of programs that students can explore to obtain educational upgrading, certificates, or diplomas, as well as apprenticeship opportunities and university degrees. Key program areas, certificates obtained, and the types and lengths of programs that are being offered are summarized in Table 3.5-9.

Table 3.5-9 Aurora College Key Programs Areas, 2013 to 2014

Program	Information	Type of Program	Time
Academic Upgrading and Access Programs	Prepares students for entry to the corresponding certificate, diploma, degree, trades, and technology programs, as well as other postsecondary or employment opportunities	Adult Literacy Basic Education (ALBE), Teacher Education, Trades Access and Nursing Access (Career Access Programs)	10-month program
Certificate Programs	General College Certificate Programs	Office Administration, Adult Education, Early Childhood Development, Community Health, Traditional Arts	Variable
Diploma Programs	College Diploma Programs	Business Administration, Office Administration, Aboriginal Language and Cultural Instructor Program II, Social Work, Environment and Natural Resources Technology Program	Two-year programs
Degree Programs	Degrees, via partnerships, with the University of Saskatchewan and University of Victoria	Bachelor of Education, Bachelor of Science in Nursing, Master of Nursing	Four-year joint university program for Bachelors, two years for Masters
Trades, Apprenticeship, and Industrial Training Programs	Registered apprenticeship and other technical and occupational programs that are provided in school and in Alberta and other jurisdictions There are 42 designated trades and 24 certified occupations Also includes pre-apprentice, pre-trades, and occupational programs	Supply Management, Heavy Equipment Operation, Underground Mining, Heavy Equipment Technician, Environmental Monitoring	Variable

Source: Aurora College (2014d).

Sample courses that are available to students of Aurora College are listed in Table 3.5-10.

Table 3.5-10 Aurora Programs, 2013 to 2014

Aurora Program Areas	Sample Courses
School of Developmental Studies	Business Administration Access
	Developmental Studies
	Environment and Natural Resources Technology Access
	Literacy Outreach Centre
School of Business & Leadership	Business Administration
	Office Administration
	Purchasing Management Association of Canada Diploma in Supply Management
School of Education	Aboriginal Language and Cultural Instructor Program (ALCIP) II
	Bachelor of Education Program
	Certificate in Adult Education
	Early Childhood Development
	Teacher Education Access
School of Health and Human Services	Bachelor of Science in Nursing
	Community Health Representative
	Master of Nursing, Nurse Practitioner Primary Health Care Stream
	Nursing Access
	Personal Support Worker
	Social Work
	Social Work Access
School of Trades, Apprenticeship, and Industrial Training	Apprenticeship Carpenter
	Apprenticeship Electrician
	Apprenticeship Heavy Duty Equipment Technician
	Apprenticeship Housing Maintainer
	Apprenticeship Plumber/Gasfitter Program
	Camp Cook
	Heavy Equipment Operator Program
	Introduction to Underground Mining
	Observer/Communicator Training Program
	Oil Burner Mechanic (TQ) Special
	Pre-Apprenticeship Carpentry
	Pre-Apprenticeship Heavy Equipment Technician
	Trades Access
	Trades Access II
	Underground Miner Training Program
Arts and Science Programs	Environment and Natural Resources Technology Program
	Environmental Monitor Training Program
Continuing Education	Traditional Arts

Source: Aurora College (2014e).

Aurora College's Yellowknife campus has a 14-week Underground Miner Training Program (Aurora College 2014f). It also offers an Introduction to Underground Mining course in Behchokò, Dettah/N'Dilo, Lutsel K'e, and Fort Resolution.

3.5.2.6 *Other Education and Career Opportunities*

Nunavut Arctic College has a campus in Cambridge Bay that provides educational opportunities for residents of Kugluktuk. A variety of programs ranging from adult basic education, apprenticeship, business, education, and health programs is offered at the Kitikmeot Campus (Nunavut Arctic College 2014).

The GNWT Department of Human Resources is responsible for the retention and recruitment of individuals for public service positions. It looks to recruit public service employees who are representative of the public (GNWT-Human Resources 2014b). The availability of two important programs in the NWT is described below (Summer Student Employment Program and Northern Graduate Employment Program).

3.5.2.6.1 *Summer Student Employment Program*

In 2012, the Summer Student Employment Program supported 308 positions (55% Northern Aboriginal). The program is designed to expose students to a variety of jobs and help them consider the GNWT as an employer of choice. This program provides summer job opportunities that will enhance northern post-secondary students' employment prospects upon graduation. It is also part of the Progressive Experience Program, a summer student program that provides relevant work experience to a northern post-secondary student's field of study (GNWT-Human Resources 2013a).

3.5.2.6.2 *Northern Graduate Employment Program*

The Northern Graduate Employment program is administered by the GNWT and offers four programs to northern graduates. Graduates can seek internships in the public sector or employment related to their field of study in nursing, social work, and education. In 2012, 38 post-secondary graduates were given the opportunity to work in their chosen fields of study (GNWT-Human Resources 2013b). This program provides orientation and training, mentorship, and support for permanent placements (GNWT-Human Resources 2014c).

3.5.3 *Ekati Mine's Contributions to Education*

The Ekati Mine has a history of contributing to education in the NWT, both through financial investment in schools and education programs, and through training that employees receive at the mine. Dominion Diamond aims to create a positive legacy that will remain with the territory long after the mine has closed, and has identified culture and education as focal points for its community development strategy. In 2012, proceeds from the Ekati Mine provided \$3.4 million of investments in community development initiatives in the NWT and in Kugluktuk. Money was invested in the Ekati Plus scholarship program, various traditional knowledge projects, and educational scholarships.

The Workplace Learning Program began at Ekati Mine in 2001 with the aim of enhancing the literacy of employees who have lower levels of educational achievement. Apprenticeship and General Education Diploma programs were added in 2003, a warehouse technician was added in 2004, and an Introduction to Computers Program was added in 2005. During the span of the Workplace Learning Program, 160 employees received basic literacy training, 62 employees were assisted with obtaining their General Education Diploma, 60 employees received pre-trades math training, and 15 employees went on to complete apprenticeships. The outcomes of the program were increased literacy amongst employees and increased opportunities for further education and advancement. Eventually, as the workforce became more educated, and as educational achievement improved in the NWT labour force, demand for the program diminished (Beaulieu 2014).

Community and Aboriginal relations personnel from Ekati Mine have developed a presentation that is delivered by Ekati Mine staff to students in high schools and is aimed at encouraging educational attainment. The presentation brings workers from different areas of mining (e.g., tradespeople, administrative staff, professional staff) to talk about their jobs and the associated educational requirements. It also presents the income potential of the various skill levels associated with positions at the mine, and notes the education requirements associated with each type of position. Dominion Diamond staff have noted that the presentation reminds students of the importance of education for furthering their careers and that it receives positive responses from students. Dominion Diamond would like to see this presentation delivered earlier in the K-12 system, to help motivate students at an early age and thereby lay the foundation for future educational success (Beaulieu 2014).

The Ekati Mine has contributed to education and advancement in LSA communities in several ways. The operator is continuing a five-year partnership with Skills Canada NWT, and is investing \$300,000 in strengthening the trades and trades training within the NWT. Each year, Dominion Diamond also holds trades demonstrations in one of the Impact Benefit Agreement (IBA) communities for high school students.

The Ekati Plus program provides scholarships for post-secondary education to students from LSA communities and invests in schools, elder centres, out on the land programs, the Trails Series films, a heritage centre, youth programs, and community initiatives aimed at preserving and teaching traditional knowledge and language. Paid apprenticeships at the mines, many of which are filled by Northern Aboriginals, have built trades capacity in the labour force and many apprentices are employed at the mine today (Dominion Diamond 2013a).

3.6 Health and Well-Being

Health is broadly defined as a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity (WHO 2005). The determinants of health are broad, and include socio-economic parameters such as income, education, environment, social support networks, and culture.

Information on the health outcomes in the NWT were collected through the *Northwest Territories Health Status Report* in 2010 (GNWT-HSS 2011a). The NWT has developed a health assessment framework that tries to capture the complex interaction between health indicators (diseases and mortality) and health determinants (education and employment). For example, individuals with lower education and income are more likely to smoke, be physically inactive, and develop chronic diseases than those with higher income and education (GNWT-HSS 2011a). Through this framework, the report presents information on health trends, disease risks, and the effect of lifestyle choices on chronic disease and mortality. Key findings included the following:

- On average, women live approximately 3.3 years longer than men, or 81.7 and 78.4 years, respectively.
- The NWT mortality rate²⁷ is decreasing, and the mortality gap between men and women is closing.
- Currently 41% of the NWT population participates in enough physical activity to maintain or improve their health compared to 53% of other Canadians.
- Sixty-three percent of NWT residents are overweight or obese compared to 51% of other Canadians.
- Prostate cancer is the most common cancer in men, and breast cancer is the most common cancer in women. The second leading type of cancer for both genders is colorectal cancer. Colorectal cancer is the third most common cancer in Canada that affects both men and women.
- Methicillin resistant *Staphylococcus aureus* infection is an emerging health issue in the NWT, and the rate of new infection has increased in the past decade. The bacteria can be acquired in hospitals and in small communities characterized by substandard living conditions.
- The teen birth rate in the NWT is declining, and incidences of teen births are the lowest in over 20 years.
- Between 2005 and 2007, the leading causes of death in the NWT were cancers and cardiovascular diseases, followed by injuries and respiratory diseases.
- In 2009, 52% of NWT residents 12 years of age and older rated their health status as either excellent or very good.
- In the NWT, 70% of deaths and more than 50% of the number of days spent in hospital were related to chronic conditions.

The GNWT, in partnership with BHP Billiton (Ekati Mine), De Beers (Snap Lake Mine and Gahcho Kué), Dominion Diamond (Ekati Mine), and Rio Tinto (Diavik Mine), monitor health and well-being conditions in communities near the diamond mines²⁸ and produce an annual Communities and Diamonds report (GNWT-ITI 2012c). The report has been incorporated into the discussion of baseline health and well-being conditions that is presented in this section.

²⁷ The number of deaths per 1,000 people.

²⁸ Behchokò, Dettah, Gameti, Lutselk'e N'Dilo, Wekweètì, and Whatì.

3.6.1 Physical and Mental Health

Most NWT residents (52%) consider themselves to be in good or excellent physical health (Table 3.6-1). A higher proportion (62%) perceives their mental health to be good or excellent. Self-perceived health is the best in the 25 to 44 year age group and worst in the 60 years and over age group (GNWTBS 2012b).

Males generally perceive themselves to be in slightly better physical and mental health than women. Aboriginals perceive their physical and mental health to be considerably worse than non-Aboriginal people. Household income also has a strong positive relationship with perceived health. People in households with annual incomes higher than \$100,000 are almost twice as likely to perceive their mental and physical health to be good or excellent compared to those in homes with incomes below \$50,000 (GNWTBS 2012b).

Table 3.6-1 Perceived Physical and Mental Health Status in the Northwest Territories, Population 15 Years and Over, 2012

Demographic Variable	Total Population	Self-Perceived Very Good or Excellent Physical Health		Self-Perceived Very Good or Excellent Mental Health	
	# of People	# of People	%	# of People	%
Total population 15 and over	33,021	17,253	52.2	20,521	62.1
Age Groups					
15 to 24	6,348	3,501	55.2	3,797	59.8
25 to 44	13,521	7,991	59.1	9,592	70.9
45 to 59	8,926	4,511	50.5	5,324	59.6
60 and over	4,227	1,250	29.6	1,808	42.8
Gender					
Male	17,156	9,274	54.1	10,947	63.8
Female	15,865	7,979	50.3	9,574	60.3
Ethnicity					
Aboriginal	15,724	6,420	40.8	7,493	47.7
Non-Aboriginal	13,527	8,451	62.5	9,717	71.8
Not stated	3,770	2,381	63.2	3,311	87.8
Household Income (\$)					
<50,000	8,390	2,606	31.1	3,235	38.6
50,000 to 99,000	7,480	3,489	46.6	4,299	57.5
100,000+	17,151	11,157	65.1	12,986	75.7

Source: GNWTBS (2012b).

= number; % = percent; \$ = Canadian dollars; < = less than; + = plus.

The NWT has one of the highest rates of chronic disease in Canada. Chronic diseases that have been identified as priority areas are diabetes, renal, and mental health diseases (GNWT-HSS 2013a). In 2009, it was estimated that approximately 5.2% of the population were living with diabetes in the NWT, and approximately 200 new cases (0.005% of population) are diagnosed each year.

Renal diseases (i.e., those affecting the kidney) accounted for over 2,000 bed days of hospitalization annually in the territory. However, mental health diseases were the leading cause of hospitalization, accounting for 26% of bed days and 22% of health care costs (GNWT-HSS 2013a). In response to these problems, the GNWT has put in place a program to standardize chronic disease management throughout the territory. The program also aims to increase coordination amongst health practitioners and to empower patients to understand and manage their disease, particularly in the context of diabetes (GNWT-HSS 2013a).

Wellness program funding in the territory was approximately \$5.5 million in 2008. Almost half of the funding was channelled towards the Brighter Futures initiative, which focused on community-based approaches for health. The program has funding for all communities in the NWT, and focuses on providing early childhood development through increasing parenting skills and programs for healthy babies. Other initiatives include programs for suicide prevention, injury prevention, diabetes management, and drug abuse, including initiatives to combat fetal alcohol syndrome. The Beaufort Delta received the greatest amount of funding (29%), followed by the Tłı̄ch̄o region (14.9%), Dehcho (11.4%), Treaty 8 (7.5%), Sahtu (7.4%), and Yellowknife (5.5%). The remainder of the territory received 23.9% in 2008 (GNWT-HSS 2009).

3.6.2 Mortality

Cardiovascular diseases and cancers are the leading causes of death in the NWT, each contributing to 23% of total deaths. These are followed by injury (19%), respiratory diseases (14%), and digestive diseases (4%). Seventeen percent of deaths in the NWT are attributed to unknown causes. The four leading causes of death were the same for women and men; however, they were ranked in a different order. Cancer was the leading cause of death for women (breast, colorectal, and lung), while injuries were the leading causes of death for males. The cancer mortality rate decreased from 10.9 to 8.1 deaths per 10,000 between 1980 and 2007. Cardiovascular diseases and injuries leading to mortality also decreased over the same period (GNWT-HSS 2011a).

The premature mortality rate (PMR) measures unfulfilled life expectancy and calculates deaths occurring before the age of 75 years. In 2007, the PMR in the NWT was 25.1 deaths per 10,000, which was higher than the national PMR rate of 17.2 per 10,000 for Canada. Overall, the PMR from injuries and cardiovascular diseases has been on the decline, while the PMR from respiratory diseases has risen in NWT (GNWT-HSS 2011a).

The GNWT also measures potential years for life lost (or early deaths) due to health, well-being, and lifestyle choices. Findings suggest that potential years for life lost is reducing in Yellowknife and the small local communities that are potentially affected by diamond mining. This trend began before diamond mining operations began, and has not substantially changed since, suggesting that there is no correlation between life expectancy and mining operations (GNWT-ITI 2012c).

The suicide rate in the NWT varies by region. The rate in Yellowknife and communities affected by diamond mining²⁹ has been increasing since the mid-1990s, and especially in the smaller communities. This increase is in contrast to the declines seen in smaller communities in regions outside of the Communities and Diamonds monitoring area. Addictions and mental health problems have been linked to increases in suicide (Northern News Service 2012a). Higher incomes from jobs in the mining industry have made alcohol and drugs more accessible to those employed. Abuse of alcohol and drugs can lead to people engaging in riskier activities such as crime, unprotected sexual intercourse, and further substance abuse, and can lead to depression and, in some cases, suicide (GNWT-ITI 2012c). The GNWT has put in place the Applied Suicide Intervention Skills Training program, which is aimed at building the capacity for suicide prevention amongst community members and health care workers (Northern News Service 2012a).

In 2009 there were 186 deaths in NWT; 28 of these deaths were from injuries and 7 were from suicides; 5 of these suicides occurred in the LSA communities of Fort Resolution, Lutsel K'e, Wekweètì, and 2 in Yellowknife. The suicide rate, in general, has remained steady since 2000 (GNWTBS 2013b). Mortality statistics (total deaths, injury deaths, and suicides) for the LSA communities, where this information is available, are presented in Table 3.6-2.

Table 3.6-2 Selected Mortality Statistics (Total Deaths, Injury Deaths, and Suicides) in Local Study Area Communities, 2009

Community	Total Population (2009)	Total Deaths (2009)	Injury Deaths (including suicides) (2009)	Suicides (2009)
Behchokò	2,056	15	2	n/a
Dettah	256	n/a	n/a	n/a
Fort Resolution	511	5	2	1
Gamètì	294	n/a	n/a	n/a
Lutsel K'e	312	5	2	1
Wekweètì	145	1	1	1
Whati	493	1	0	0
Yellowknife	19,874	55	8	2
Kugluktuk	n/a	n/a	n/a	n/a
NWT	43,637	186	28	7

Source: GNWTBS (2013b).

n/a = not available or not applicable; NWT = Northwest Territories.

²⁹ The Communities and Diamonds reports track conditions in Behchokò, Dettah, Gameti, Lutsel K'e, N'Dilo, Wekweètì, and Whati.

3.6.3 Perceptual Well-Being

Well-being refers to positive and sustainable characteristics that enable individuals, families, and communities to thrive and flourish (GNWT-HSS 2011a). A survey of perceived well-being in the NWT found that the majority of people (87.4%) were satisfied or very satisfied with their life. The demographic characteristics showed that younger people were on average more satisfied than older people, women more than men, non-Aboriginal people more than Aboriginal people, and richer people more than poorer people (Table 3.6-3) (GNWTBS 2012b).

In the same survey, approximately three-quarters of the NWT population (78.5%) felt that they lived in a society with a sense of community. On this well-being indicator, older people were more likely to report perceived sense of community than younger individuals. Aboriginal people were also more inclined to report that they experienced a greater sense of community. Income levels did not considerably affect people's perceived sense of community. Perceived well-being statistics for selected demographic categories in the NWT (GNWTBS 2012b) are presented in Table 3.6-3.

Table 3.6-3 Perceived Well-Being in Northwest Territories, Population 15 Years and Over, 2012

	Total Population		Satisfied / Very Satisfied with Life		Somewhat or Very Strong Sense of Community	
	# of People	%	# of People	%	# of People	%
Total population 15 and over	33,021	100.0	28,851	87.4	25,908	78.5
Age Groups						
15 to 24	6,348	100.0	5,790	91.2	4,934	77.7
25 to 44	13,521	100.0	12,289	90.9	10,400	76.9
45 to 59	8,926	100.0	7,413	83.0	7,068	79.2
60 or over	4,227	100.0	3,360	79.5	3,506	82.9
Gender						
Male	17,156	100.0	15,165	88.4	14,039	81.8
Female	15,865	100.0	13,686	86.3	11,869	74.8
Ethnicity						
Aboriginal	15,724	100.0	12,709	80.8	13,003	82.7
Non-Aboriginal	13,527	100.0	12,613	93.2	10,119	74.8
Not stated	3,770	100.0	3,529	93.6	2,786	73.9
Household Income (\$)						
Less than 50,000	8,390	100.0	6,274	74.8	6,556	78.1
50,000 to 99,000	7,480	100.0	6,545	87.5	5,934	79.3
100,000 or more	17,151	100.0	16,032	93.5	13,419	78.2

Source: GNWTBS (2012b).

= number; % = percent; \$ = Canadian dollars.

Studies have shown that well-being is also related to the level of volunteerism that people undertake in their communities (Thoits and Hewitt 2001; UNV 2011). Important attributes of volunteerism linked to well-being include the “level of solidarity, passion for a cause and wanting to give back to society” (UNV 2011). In 2008, 38% of people in the NWT engaged in volunteer activities. In Yellowknife, the rate was relatively unchanged at 39%. People living in small LSA communities, on average, volunteered slightly less than the territorial average except for Lutsel K’e and Dettah, which were close to the territorial average. The rates of volunteerism in the total population in LSA communities are presented in Table 3.6-4.

Table 3.6-4 Rates of Volunteerism in Local Study Area Communities, 2008

Community	% of People Who Volunteered (2008)
Behchokq	26
Dettah	38
Fort Resolution	16
Gamèti	25
Lutsel K’e	40
Wekweèti	28
Whati	21
Yellowknife	39
Kugluktuk	n/a
NWT	38

Source: GNWTBS (2013b).

n/a = not available or not applicable; % = percent; NWT = Northwest Territories.

A further indicator of well-being is the use of Aboriginal languages and participation in traditional cultural activities such as hunting and fishing (Public Health Agency of Canada 2006; GNWT-ITI 2012c; Kant et al. 2013). The *Communities and Diamonds: 2012 Annual Report* notes that language skills may be the most at risk from mine employment because English is the primary language used at work (GNWT-ITI 2012c). Data on Aboriginal language use rates in NWT and LSA communities are presented in Table 3.6-5. Aboriginal language use has declined over the last decade across the territory from 45% to 38% of the total Aboriginal population speaking a traditional language. In the LSA, there has been a decline in some but not all of the communities. In Gamèti and Wekweèti, for instance, most people speak an Aboriginal language. In all the communities but Yellowknife, more than half the population still speak an Aboriginal language.

The level of participation in traditional activities is also considered an indicator of well-being in Aboriginal communities. For instance, the sharing of surplus harvest from hunting and fishing was part of a system of reciprocity or insurance against potential future misfortune, and ensured the well-being of the entire community (Bennet and Rowley 2004). In the NWT, 45% of the Aboriginal population reported that they had engaged in hunting and fishing activities in 2008. Participation in traditional hunting and fishing varied amongst LSA communities. Rates of participation were highest in the Aboriginal populations of the communities of Lutsel K'e (76%) and Wekweètì (60%), but were lower in Behchokò (36%), Dettah (38%), Yellowknife (38%), and Gamètì (39%). The rates of hunting and fishing in the Aboriginal population in LSA communities are presented in Table 3.6-5.

Table 3.6-5 Rates of Traditional Language Use, Hunting and Fishing Amongst Aboriginal People in Local Study Area Communities

Community	Aboriginal Language Use (1999) (%)	Aboriginal Language Use (2009) (%)	Participation in Traditional Hunting and Fishing Activities (2008) (%)
Behchokò	98	89	36
Dettah	77	60	38
Fort Resolution	41	34	50
Gamètì	99	99	39
Lutsel K'e	79	77	76
Wekweètì	99	99	60
Whatì	99	93	47
Yellowknife	22	18	38
Kugluktuk	n/a	n/a	n/a
NWT	45	38	45

Source: GNWTBS (2013b).

n/a = not available or not applicable; % = percent; NWT = Northwest Territories.

3.6.4 Substance Abuse and Gambling

Almost 78% of people 15 years of over in the NWT consume alcohol (Table 3.6-6). More men consume alcohol than women, and more non-Aboriginals drink than Aboriginals. People in Yellowknife report that they drink more than people in smaller communities; the percentage of heavy and frequent drinkers is highest in regional centres³⁰ (GNWT-HSS 2010a). In 2009, 23% of people who reported drinking alcohol (aged 15 and over) reported at least one type of harm as a result of their consumption of alcohol. Fifty-one percent of the population also reported that they had experienced harm from someone else's drinking in 2009. Younger drinkers with less education and living in smaller communities reported the most harm. The most common self-reported harmful effects of drinking were on friendships or social life (14%), physical health (10%), and home life or marriage (8%). Drinking and driving is a serious problem in NWT. It was a factor in 22% of injuries and 55% of deaths involving a motor vehicle accident between 1996 and 2004 (GNWT-HSS 2010a).

³⁰ Fort Smith, Hay River, and Inuvik.

Table 3.6-6 Self-Reported Profile of Alcohol Use in Northwest Territories, 2009

	Self-Reported Drinking						Reported Harm From Drinking	
	Abstainer (%)	Former (%)	Light Infrequent (%)	Light Frequent (%)	Heavy Infrequent (%)	Heavy Frequent (%)	Harm From Own Drinking (%)	Harm From Other Persons Drinking (%)
Total	7	15	26	18	15	19	23	51
Gender								
Males	5	15	21	19	17	24	26	53
Females	10	16	32	17	13	13	20	48
Aboriginal Identity								
Aboriginal	6	21	21	7	23	23	40	59
Non-Aboriginal	8	11	31	28	8	15	9	43
Age Group								
15 to 24	16	9	20	8	22	26	37	65
25 to 39	5	8	28	20	18	21	21	55
40 to 59	5	19	28	24	11	13	17	44
60+	0	37	24	13	0	16	27	35
Educational Attainment								
Less than high school	9	22	20	6	23	20	42	59
High school diploma	9	12	24	13	16	26	24	52
Some post-secondary	6	13	30	21	10	20	12	49
University degree	4	10	32	39	7	9	11	38
Geographic Location								
Yellowknife	8	11	28	25	12	17	12	45
Regional centres	5	17	26	15	12	26	24	50
Other communities	8	22	22	9	22	16	43	61

Source: GNWT-HSS (2010a).

Note: Only includes data for persons 15 years or older.

% = percent; + = plus.

The number of daily smokers, both males and females, declined in the NWT between 1996 and 2009 (from 39% to 25%), and the proportion of people who had never smoked increased (from 30% to 41%). Few aged 15 to 24 were former smokers, with a relatively even split of this population being a current smoker (46%) or never having smoked (48%). Aboriginal people were more than twice as likely to smoke as non-Aboriginal people were, and were almost 4.5 times more likely to be occasional smokers. People with a university degree were more likely to have never smoked than the less educated; they were also five times less likely to smoke than people without a high school diploma were. Selected statistics on tobacco use in the NWT are presented in Table 3.6-7. A breakdown of smoking rates for communities in the LSA is presented in Table 3.6-8. Smaller communities are more likely to have higher rates of smokers than the territorial average or the rate in Yellowknife.

Table 3.6-7 Self-Reported Profile of Cigarette Smokers in Northwest Territories, 2009

	Current (%)	Daily (%)	Occasional (%)	Former (%)	Never (%)
Gender					
Male	38	27	11	24	38
Female	34	24	10	22	43
Age					
15 to 24	46	26	20	6	48
25 to 39	36	25	11	18	46
40 to 59	32	26	6	31	36
60+	29	21	8	46	25
Aboriginal Identity					
Aboriginal	55	38	18	21	24
Non-Aboriginal	19	14	4	25	56
Highest Level of Education					
Less than high school	53	34	18	19	29
High school diploma	43	31	12	18	40
Some post-secondary	30	24	6	29	41
University degree	10	7	n/a	30	60

Source: GNWT-HSS (2010a).

Note: Only includes data for persons 15 years or older.

% = percent; n/a = not available; + = plus.

Table 3.6-8 Rate of Cigarette Smoking in Local Study Area Communities, 2009

Community	Smoking Rate (%)
Behchokq	46
Dettah	49
Fort Resolution	60
Gamèti	50
Lutsel K'e	60
Wekweèti	50
Whati	41
Yellowknife	24
Kugluktuk	n/a
NWT	40.8

Source: GNWTBS (2013b).

n/a = not available or not applicable; % = percent; NWT = Northwest Territories.

Almost 60% of people in the NWT reported using cannabis (marijuana or hashish) at least once, and approximately 20% had used cannabis in the past 12 months. Men are more likely to have used cannabis than women (65% versus 55%), and Aboriginal people were more likely than non-Aboriginals (66% versus 53%). Cannabis use rates in the past year were also higher for people with a high school diploma or less compared to those with higher levels of education (32% versus 11%). People in smaller communities were approximately twice as likely to have smoked cannabis in the last year compared to those living in Yellowknife. Approximately 23% of past year cannabis users self-reported experiencing harm. The most common types of harm reported were to physical health (12%), friendship and social life (8%), and home life and marriage (8%) (GNWT-HSS 2010a).

Since 2002, there has been a marked increase in the number of NWT residents who have tried “hard drugs,” including cocaine or crack, hallucinogens, speed, ecstasy, and heroin. The rate of use has increased from 16% in 2002 to 24% in 2009. Men were more likely to have tried hard drugs than women (30% and 17%). Aboriginal people were only slightly more likely to have tried hard drugs than non-Aboriginals (25% and 23%). People with a high school diploma were more likely to have tried hard drugs (29%) than those with less than a high school education (22%) or those with a university degree (26%).

People in Yellowknife (26%) and larger regional centres (24%) were more likely to have used hard drugs in their lifetimes than people in smaller communities (19%) (GNWT-HSS 2010a). Hard drugs may be less available in smaller communities because they are likely imported from other regions of Canada. Hard drugs are also often more costly than other substances such as alcohol and cannabis.

Forty-three percent of regular hard drug users (within the past year) self-reported that they experienced harm from their drug use, and more than half the people reported that it affected their ability to maintain work or studies (GNWT-HSS 2010a). Lifetime and past year use rates for cannabis and other illicit drugs in 2009 are presented in Table 3.6-9.

The prevalence of people who gambled occasionally (at least once per year) and those who gambled regularly (once a week) fell in the NWT between 1996 and 2009. For occasional gamblers, the rate reduced from 78% to 71%, and for regular gamblers the rate fell from 29% to 23%. People with lower levels of education were more likely to gamble occasionally than university graduates (81% versus 68%). Sixty-eight percent of people who lived in Yellowknife and small communities gambled, while the rate was much higher in regional centres, with 81% of people engaging in gambling. Aboriginal people (31%) were more likely to gamble regularly than non-Aboriginals (16%). There was no substantial difference between the rate of gambling for males and females.

The most common types of gambling were lottery tickets (62%), scratch tickets (47%), bingo (31%), and card games (26%). Internet gambling accounted for only 6% of gambling in the NWT. On average, the amount spent in the NWT in a “typical” week gambling was \$40. People over the age of 60, however, spent approximately \$61 per week. People from smaller communities also spent higher amounts than the territorial average at \$86 per week (GNWT-HSS 2010a).

Table 3.6-9 Self-Reported Profile of Cannabis and Other Illicit Drug Use in Northwest Territories, 2009

	Cannabis Use at Least Once in Lifetime (%)	Cannabis Use in Past 12 Months (%)	Illicit Drug Use^(a) at Least Once in Lifetime (%)	Illicit Drug Use in Past 12 Months (%)
Total	59	20	24	4
Gender				
Males	64	25	30	6
Females	54	16	17	4
Aboriginal Identity				
Aboriginal	66	28	25	6
Non-Aboriginal	53	13	23	4
Age Group				
15 to 24	67	41	24	n/a
25 to 39	66	24	29	n/a
40 to 59	62	10	25	n/a
60+	19	n/a	n/a	n/a
Educational Attainment				
Less than high school	61	32	22	n/a
High school diploma	60	24	29	n/a
Some post-secondary	60	11	26	n/a
University degree	57	9	20	n/a
Geographic Location				
Yellowknife	58	13	26	n/a
Regional centres	58	20	24	n/a
Other communities	62	32	19	n/a

Source: GNWT-HSS (2010a).

Note: Only includes data for persons 15 years or older.

a) Illicit drug use includes all hard drugs, excluding cannabis.

n/a = not applicable or not available; % = percent; + = plus.

3.6.5 Crime

Community well-being is also a function of public security. Total crime levels in the NWT (and the Canadian North in general) are approximately four times higher than the Canadian national rate (CBC 2012a), and rose by 54.7% between 1998 and 2011. However, in 2012 total crime declined by 17% from the previous year, and violations fell from 3,027 to 2,502 reported incidents.

The majority of crime in NWT was classified as violent crime, which ranges from harassment and threats to sexual assault and homicides. The greatest proportion of violent crimes was reported to be non-sexual assaults, followed by sexual assaults and threats. There were only three reported homicides in 2012 in NWT (GNWTBS 2013m). In addition, miscellaneous crimes constitute 29% of all crimes, and property crimes make up 14%.

A recent report that examined the causes of crime in NWT found that several factors contribute to the high levels of violent crime in NWT. Low educational attainment, addictions issues, housing issues, and employment issues “all factor into people's ability to keep themselves productive and out of trouble.” In this report, the RCMP also acknowledged that the majority of crimes were related to alcohol, and to a lesser extent, drug use, and that victims and perpetrators often know each other; very few crimes in the territory were random acts of crime (CBC 2012a).

Crime statistics for NWT and Yellowknife are presented in Table 3.6-10. Although 46% of the population of NWT lives in Yellowknife, total crime in Yellowknife is only 23% of the territorial total. This indicates that there are higher levels of crime in the smaller communities, and that the rate of crime in Yellowknife is more closely aligned to rates in other population centres in Canada (GNWTBS 2013m).

Crime rates in the LSA communities vary. From 2004 to 2011, crime rates have grown in the communities of Behchokq and Lutsel K'e for property and violent crimes. In contrast, crime rates have been reducing in Fort Resolution. In Whatì, property crime rates have been reducing while violent crime rates have been increasing. Yellowknife has lower property and violent crime rates than the territorial average and is more in line with national rates. The property crime rate and violent crime rates for 2004, 2008, and 2011 in LSA communities where this information is available³¹ is presented in Table 3.6-11.

³¹ Crime statistics are not available for the communities of Dettah, N'Dilo, Wekweèti, Bathurst Inlet, and Umingmaktok.

Table 3.6-10 Number of Adults Charged by Type of Crime, Northwest Territories and Yellowknife, 1998 to 2012

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
Northwest Territories															
Total Violation Charges	2,502	3,027	3,343	3,243	3,013	2,524	2,321	2,492	2,376	2,650	2,356	2,159	1,792	2,179	1,957
Violent crime violations	984	1,237	1,340	1,294	1,163	1,011	890	978	1,045	1,054	944	900	905	927	833
Property crime violations	362	353	415	408	441	397	431	540	525	538	474	433	359	363	446
Other Criminal Code violations	738	936	991	954	885	700	571	516	451	516	431	308	203	468	289
Traffic violations	277	304	358	398	355	258	259	291	253	335	369	288	216	232	283
Federal Statutes	141	197	239	189	169	158	170	167	102	207	138	230	109	189	106
Total drug violations	108	153	191	150	127	130	131	152	86	164	93	179	87	163	92
<i>Youth Criminal Justice Act</i>	25	37	39	24	32	20	25	2	3	24	25	38	12	17	13
Other Federal Statutes	8	7	9	15	10	8	14	13	13	19	20	13	10	9	1
Yellowknife															
Total Violation Charges	571	856	984	915	817	621	569	614	634	809	611	717	527	688	469
Violent crime violations	185	290	353	310	283	226	186	182	240	305	233	259	222	236	175
Property crime violations	94	116	140	122	125	120	135	182	190	188	142	123	118	122	113
Other Criminal Code violations	186	303	275	261	225	150	121	113	106	122	85	82	58	170	57
Traffic violations	65	94	113	144	117	70	69	94	71	114	118	113	69	58	87
Federal Statutes	41	53	103	78	67	55	58	43	27	80	33	140	60	102	37
Total drug violations	30	49	84	68	59	51	55	43	26	76	26	134	56	101	37
<i>Youth Criminal Justice Act</i>	7	4	15	2	6	3	1	n/a	n/a	1	2	3	n/a	n/a	n/a
Other federal statutes	4	n/a	4	8	2	1	2	n/a	1	3	5	3	4	1	n/a

Source: GNWTBS (2013m).

n/a = not available.

Table 3.6-11 Property Crime and Violent Crime Rates, 2004, 2008, and 2011

Community	Crime	2004	2008	2011
Behchokò	Property	193	486	456
	Violent	92	216	182
Fort Resolution	Property	199	184	127
	Violent	140	128	55
Gamètì	Property	n/a	10	27
	Violent	n/a	24	30
Lutsel K'e	Property	127	343	218
	Violent	74	154	262
Whatì	Property	155	102	131
	Violent	99	52	123
Yellowknife	Property	186	153	160
	Violent	62	48	45
Kugluktuk	Property	n/a	n/a	n/a
	Violent	234	110	127
NWT	Property	208	203	231
	Violent	89	88	85

Source: GNWTBS (2013b).

Note: Rates are provided per 1,000 persons.

n/a = not available; NWT = Northwest Territories.

3.6.6 Protective and Emergency Services

Protection services in the NWT are composed of policing, fire protection, community emergency plans, coast guard, search and rescue services, and correction services.

3.6.6.1 Policing

The RCMP provides police protection and services including crime protection and public safety, emergency preparedness, and policing services. The RCMP provides total federal policing service to the NWT and Nunavut, and provides territorial law enforcement and community policing service (RCMP 2012a).

In the NWT, headquarters for the RCMP (G Division) are in Yellowknife. This division provides services through detachment offices in the LSA communities of Behchokò, Fort Resolution, Gamètì, Lutsel K'e, Whatì, and Yellowknife (RCMP 2014a,b). Dettah and Wekweètì have services provided through Yellowknife or other communities when required. In Nunavut, the RCMP (V Division) has headquarters in Iqaluit and a detachment office in the LSA community of Kugluktuk (RCMP 2012b).

The numbers of RCMP officers that were in the LSA communities in 2013 are summarized in Table 3.6-12. There were 45 RCMP officers in Yellowknife and 12 in Behchokò. Most of the smaller communities have two to six officers, but there are no officers in Dettah, N'Dilo, or Wekweètì, which are policed by Yellowknife or Behchokò detachments.

Table 3.6-12 Royal Mounted Police Officers, Local Study Area Communities, 2013

Community	Royal Canadian Mounted Police Detachments or Offices	Royal Canadian Mounted Police Officers per Community
Behchokò	Detachment office	12
Dettah	-	Policed from Yellowknife
Fort Resolution	Detachment office	3
Gamètì	Detachment office	2
Lutsel K'e	Detachment office	2
N'Dilo	-	Policed from Yellowknife
Wekweètì	-	Policed from Behchokò
Whatì	Detachment office	2
Yellowknife	Headquarters	45
Kugluktuk	Detachment office	6

Source: GNWTBS (2013b).

Note: Kugluktuk source is from Aarluk Consulting (2011).

- = no detachment at this location.

3.6.6.2 Fire Protection

Fire department sizes in the LSA vary and are reflective of the diverse population sizes of the different communities. The Behchokò Fire Department has 12 firefighters and two fire trucks, while the Wekweètì Fire Department has 2 firefighters (GNWT-ENR 2012b). In Fort Resolution, there are 12 volunteer firefighters (Northern News Service 2012b). The Gamètì and Whatì Fire Departments are presently not active. The Lutsel K'e Fire Department has five or six members, but is currently inactive (GNWT-ENR 2012a). The Yellowknife Fire Division has 29 full-time positions and 30 paid on-call positions (Yellowknife 2014a). In 2011, Kugluktuk had 12 firefighters and two fire trucks (Aarluk Consulting 2011; Northern News Service 2011).

In 2013, the Yellowknife Fire Division responded to a variety of calls, including dangerous goods, false alarms, fire suppression, pre-hospital care, and rescue (Yellowknife 2014b). The 2013 annual averages for calls responding to dangerous goods, false alarms, and rescue was less than the five-year average of 2008 to 2012. Additionally, the average response time for the fire division is lower compared to the five-year average, with a time of 4:59 minutes, compared to the 2008 to 2012 average of 5:14 minutes. However, the yearly averages for calls responding to fire suppression, pre-hospital care, and total overall calls have increased compared to the same five-year average.

3.6.6.3 Emergency Measures and Plan

The GNWT Emergency Services Division manages the Emergency Measures Office. The Emergency Measures Office works in conjunction with the RCMP, the Office of the Fire Marshall, and other institutions and agencies to deliver emergency plans, and to coordinate and implement these plans in times of natural or man-made emergencies (Government of Canada 2013a).

3.6.6.4 Correctional Services

The NWT Corrections Services is responsible for the correction and treatment of young and adult offenders. Services are supervised by the Director of Corrections and staffed by approximately 240 full-time and casual employees in 10 NWT communities (GNWT-Justice 2011). Services provided include court reports for adult and youth offenders, probation and parole supervision, and custody and detention of inmates.

Amongst the LSA communities, there is one adult and one youth correctional facility in Yellowknife and one adult correctional facility in Kugluktuk (Northern News Service 2009; GNWT-Justice 2013). The North Slave Correctional Centre provides institutional services for adult male offenders in Yellowknife, and North Slave Young Offender Facility provides services to male and female youth offenders. Institutional services for adult female offenders are located at the Fort Smith Correctional Complex (GNWT-Justice 2013). In Kugluktuk, the Ilavut Correctional Healing Centre is a minimum-security correctional facility for adult male offenders (Nunatsiaq Online 2007).

3.6.7 Healthcare and Social Infrastructure and Services

The Government of Northwest Territories – Health and Social Services (GNWT-HSS) administers a wide range of community and facility-based health care and social services in the NWT. The territory has eight regional Health and Social Service Authorities (HSSAs), three of which cover the LSA communities (GNWT-HSS 2011b): the Stanton Territorial Health Authority, Tłıchq Community Service Agency, and the Yellowknife Health and Social Services Authority (YHSSA). Health and social services in Kugluktuk are provided by the Kitikmeot Regional Health Board (Table 3.6-13).

Table 3.6-13 Communities Served by Regional Health and Social Service Authorities

Health and Social Service Authorities	Study Area Communities
Stanton Territorial Health Authority	Yellowknife
Tłıchq Community Services Agency	Behchokq, Gamèti, Wekweèti, Whati
Yellowknife Health and Social Services Authority	Dettah, Lutsel K'e, N'Dilo, Yellowknife
Kitikmeot Regional Health Board ^(a)	Kugluktuk

Source: GNWT-HSS (2014a).

a) Source: Government of Nunavut – Department of Health and Social Services (2012).

Under the supervision of each regional authority, local residents are able to access a variety of medical and community services such as primary health care clinics, public health services, homecare, and school/community health and education programs (GNWT-HSS 2014a).

In 2012, 756 medical employees worked within the four regional HSSAs that provide services to the LSA communities (Table 3.6-14). These numbers include registered nurses, medical lab technicians, certified nursing assistants, and other medical related professionals. This was an increase over the 705 total medical employees in 2008.

Table 3.6-14 Estimated Total Number of Employees of the Regional Health and Social Services Authorities, 2008 and 2012

Community	Total # of Employees	
	2008	2012
Yellowknife Health and Social Service Authority	155	158
Stanton Territorial Hospital	474	517
Tłjchq Community Services Agency	76	81
Kitikmeot Regional Health Board	n/a	n/a
Total	705	756

Sources: GNWT-Human Resources (2008, 2013b).

n/a = not available; # = number.

The NWT Health Care Plan is administered by the GNWT-HSS. This plan provides health coverage to the residents of the NWT, and universal access to a wide range of health services and programs (GNWT-HSS 2014b). The plan also provides medical travel benefits for travel expenses to the nearest medical treatment centre. Residents are only eligible if they do not have similar coverage through an employer or other type of program. The plan covers return airfare, inter-facility ambulance services, and emergency medical evacuations, as well as limited support for meals, transportation, and accommodations (GNWT-HSS 2014c).

Residents of Nunavut are covered by the Nunavut Health Care Plan. The Nunavut Health Insurance Programs Office in Rankin Inlet manages this plan and ensures that enrolled Nunavut residents have access to necessary medical services (Government of Nunavut 2014).

In addition, extended health coverage not covered by hospital and medical care insurance is available under the GNWT's Extended Health Benefits Seniors' Program (GNWT-HSS 2014d). This program is for non-First Nations and Métis seniors, and provides for prescription, dental, and vision coverage that is administered by Alberta Blue Cross on behalf of the GNWT. Another extended health benefit for NWT residents not covered by regular medical insurance is coverage for specified disease conditions (GNWT-HSS 2014e). This program provides coverage for specific diseases and conditions, eligible prescription drugs, and medically necessary supplies and equipment.

Aboriginal and Inuit residents of the NWT and Nunavut are covered under Canada's Federal Non-Insured Health Benefits Program. This program includes coverage for pharmaceutical, eye and vision care, dental, medical supplies, short-term crisis intervention, mental health counselling, and medical transportation (Health Canada 2014).

The NWT provides Métis residents with a supplementary health benefits program. The Métis Health Benefits program is similar to the Non-Insured Health Benefits Program, but at a coverage level of 100%. The benefits under this program are administered by the Alberta Blue Cross on behalf of the GNWT (GNWT-HSS 2014f).

3.6.7.1 Medical Services

According to the GNWT 2013 *NWT Hospital Services Report*, the total cost of hospital services in the NWT for the entire population between 2008 to 2011 was an estimated \$68.6 million, which is an increase from \$54.2 million for the period of 2000 to 2003 (GNWT-HSS 2013b).

3.6.7.1.1 Stanton Territorial Hospital

The Stanton Territorial Hospital in Yellowknife is the only hospital within the RSA, and is the largest acute care facility (100 beds).

The hospital provides services for the NWT and the communities in the West Kitikmeot region of Nunavut. These include services such as internal medicine, general and orthopaedic surgery, paediatrics, obstetrics, ophthalmology, radiology, and psychiatry. These services are available on site or through community-based travel clinics (GNWT-HSS 2011c).

In addition, the hospital also has five key medical clinics: Stanton Medical Clinic, Stanton Medical Centre, Stanton Eye Clinic, Stanton Mental Health Clinic, and the Stanton Health Promotion and Protection Office (GNWT-HSS 2011c).

Following the trend in other Canadian hospitals, Stanton Territorial Hospital is moving towards the provision of increased outpatient treatment. Due to improved and less-invasive medical techniques, outpatient treatment promotes swifter recovery and lower health care costs (GNWT-HSS 2011c).

Preventative health care is also a focus, with an emphasis on healthier lifestyle choices through programs such as the piloting of a centralized renal patient database for residents in Behchokò and Yellowknife (GNWT-HSS 2014g).

3.6.7.1.2 Medical Health Care Clinics

Because the smaller LSA communities do not have hospitals, community clinics play an important role in primary health care for the LSA residents.

The YHSSA provides community health, primary health care, and social service programs to the residents of Yellowknife, N'Dilo, Dettah, Lutsel K'e, and Fort Resolution (GNWT-HSS 2011d). In 2012 to 2013, the YHSSA had an annual operating budget of \$51.4 million and served approximately 20,900 residents from nearby communities (GNWT-HSS 2014g). The YHSSA clinics operate with a full complement of support staff including licensed practical nurses and clinic assistants. The YHSSA staffs three family practice anaesthesia doctors and a Fellow of the Royal College of Physicians in Canada anesthesiologist at the Stanton Hospital, where two operating rooms run full-time weekdays, with a third operating room occasionally open for dental surgery or visiting urology (GNWT-HSS 2011d). In addition, the YHSSA provides counselling services for issues such as problems with relationships, parenting, grief counselling, family violence, and poor self-esteem (GNWT-HSS 2014h).

The Frame Lake Community Health Clinic and Yellowknife Primary Care Centre also provide health services to Yellowknife and N'Dilo (GNWT-HSS 2011d). Practitioners include physicians, nurse practitioners, counsellors, dieticians, and other medical professionals. They offer health promotion, health protection and preventative services, acute, diagnostic and laboratory services, as well as community mental health services (YHSSA 2014a).

The Tłıchq Community Services Agency manages, administers and delivers key programs such as education, health care, and social services in the four Tłıchq communities of Behchokq, Gamèti, Wekweèti, and Whati (GNWT-HSS 2011d). In 2012 to 2013, the agency had an annual operating budget of \$13.0 million and served a population of approximately 3,000 people in these four communities (GNWT-HSS 2014g).

In the community of Behchokq, the Marie Adele Bishop Health Centre provides a full range of treatment services for acute and chronic care, comprehensive public health, counselling and crisis intervention, and specialist or agency referral (GNWT-HSS 2014i). The Jimmy Erasmus Centre is a personal care residence that helps elders live independently with assistance. The residence also provides 24-hour eldercare (GNWT-HSS 2014j). It has seven beds and one respite bed, with associated nursing and support staff, as well as visiting physicians, occupational therapists, and physiotherapy services (GNWT-HSS 2014j). Behchokq also has a social services office (GNWT-HSS 2011b).

The smaller communities in the LSA have health centres with nurses who can treat minor emergencies and illnesses. Patients requiring serious medical attention are flown to Yellowknife for treatment (GNWT-HSS 2014g). Gamèti and Whati have health centres, and are provided with social services by offices in Whati and Behchokq. A health station in Dettah provides health services to the community (GNWT-HSS 2011b).

The Lutsel K'e Health Centre has two community health nurses, a community health representative, and a clerk interpreter (GNWT-HSS 2014k). These representatives provide emergency, acute, and diagnostic services as well as after-hours emergency on-call services. The services offered include public health programs, prenatal, environmental health, addictions referrals, and visiting specialist services. Lutsel K'e also has its own social services office (GNWT-HSS 2011b).

The Fort Resolution Health Centre provides emergency, acute, and diagnostic services as well as after-hours emergency on-call coverage. A nurse practitioner, a community health nurse, a community health representative, and a clerk interpreter staff the centre. Services offered include public health programs, prenatal, environmental health, addictions referrals, and visiting specialist services. The Fort Resolution Elders facility is a supported living facility that provides home nursing care services, home support, and assessments and referrals to long-term care (GNWT-HSS 2014l). Fort Resolution also has its own social services office (GNWT-HSS 2011b).

Kugluktuk's Health Centre is open weekdays and is staffed by four registered nurses who treat routine health issues and are available on-call for emergencies. Dental and eye specialists make regular visits to the community. People with serious medical conditions, procedures, or emergencies are flown to Yellowknife or Edmonton (Aarluq Consulting 2011). The Kugluktuk Women's Crisis Centre provides services such as group counselling and referrals for women and children (Public Health Agency of Canada 2009). Additionally, the Kugluktuk Wellness Centre offers a prenatal nutrition program, activities for children and elders, and Alcoholics Anonymous meetings (Nunavut Tunngavik Inc. 2011).

3.6.7.1.3 Northwest Territories Telehealth

The HSSAs and other partner hospitals in the south operate a telehealth program. This innovative program provides long-distance health care services through video conferencing to remote communities. In 2010, the following communities in the NWT were using this form of video diagnosis: Yellowknife (Stanton Hospital, Yellowknife Medical Centre, Jan Stirling Building), Behchokq, Whati, Lutsel K'e, and Fort Resolution (GNWT-HSS 2010b).

3.6.7.2 Ambulance Services

The GNWT-HSS and the Nunavut Department of Health deliver ambulance services to larger centres in the RSA. The NWT provides six types of ambulance services (Table 3.6-15). Except for inter-office hospital transfers, there is a charge for ambulance service (GNWT-HSS 2014m).

Table 3.6-15 Type of Ambulance Services, Northwest Territories

Type of Ambulance Service	Definition
In-town services	Transportation of a patient to a local hospital/health centre within community boundaries, usually medical emergency response
HighwaysServices	Out-of-town services and transportation of a patient to a hospital or health care facility
Inter-facility services	Transportation of a patient from a hospital/health care centre to or from an airport and then to a hospital/health care facility
Medevac services	Air ambulance services, including a Medevac aircraft with Medevac staff
Highway rescue	Emergency response to a trapped accident victim Usually requires specific equipment and skilled medical professionals to release victim
Non-medical transportation	Transportation that does not involve the transportation of a patient or victim, but applies to the transportation of medical health professionals

Source: GNWT-MACA (2006).

Territory-wide legislation governing ground ambulance and emergency standards in the NWT (GNWT-HSS 2014n) is currently limited. Community governments and stakeholders are concerned about the lack of a comprehensive and coordinated system of ground ambulance services. In addition, they have raised concerns for issues such as service levels, responsibility for service delivery, and standardized requirements for equipment and personnel (GNWT-HSS 2014n). Ground ambulance services are currently only available in Behchokq and Yellowknife (GNWT-HSS 2011e).

To strengthen ground ambulance and highway rescue services in the NWT, the GNWT has implemented several initiatives. Eligibility for the Ground Ambulance and Highway Rescue Services Funding Program was expanded in summer 2013 to all community governments (GNWT 2013a). This funding will help train volunteer personnel and vehicle purchases will now qualify as an allowable expense (GNWT 2013a). In fall 2013, the Department of Municipal and Community Affairs completed a project aimed at helping communities recruit and manage volunteers required for effective ground ambulance and highway rescue services (GNWT 2013a). In 2014, the GNWT-HSS began considering ground ambulance legislation, and produced a discussion paper outlining key elements of possible standards legislation relating to ambulances (GNWT-HSS 2014n).

All LSA communities have access to medevac services. Medevac missions are contracted by the GNWT-HSS and the Nunavut Department of Health to the company Advanced Medical Solutions, with aircraft and flight crews provided by Air Tindi in Yellowknife (AMS 2012). The medevac service operates out of bases in Yellowknife and Inuvik, with critical and emergent patients making up 13% of transports in Yellowknife (129 patients per year) (AMS 2012). In partnership with Aqsaqniq Airways Ltd., Advanced Medical Solutions provides medevac services for Kugluktuk out of its Nunavut base in Cambridge Bay (Discover Air 2011). Once all necessary information is received, the goal for Advanced Medical Solutions is to be airborne within 60 minutes (AMS 2012). In May 2013, the Air Operations Centre at the Edmonton International Airport began taking NWT patients via the GNWT medevac program. The facility has a six-bed patient transition room with paramedic staff to support inbound and outbound stable patients (GNWT 2013b).

3.6.7.3 *Mental Health and Addiction Services*

The Stanton Territorial Hospital in Yellowknife has a 10-bed psychiatric ward that can accommodate voluntary and involuntary mental health patients. Residents from all regions in the NWT may be referred there for emergency psychiatric assessment. Following assessment, they may be referred outside the province for psychiatric treatment (YHSSA 2012).

Community mental health services in Yellowknife are provided at the Frame Lake Community Health Clinic, the Yellowknife Primary Care Centre, and the Jan Stirling Building (YHSSA 2014b).

The YHSSA provides counselling services to people living in Yellowknife, N'Dilo, Dettah, Lutsel K'e, and Fort Resolution, as well as outpatient psychiatric consultations and follow-up for the NWT (YHSSA 2014c).

In 2012, Dalhousie University in partnership with the Stanton Territorial Health Authority began providing telehealth services to residents in the NWT (Dalhousie University 2013). In the past, NWT residents had to fly to Yellowknife or Edmonton to access psychiatric services. With tele-psychiatry, the local practitioner, in collaboration with an off-site psychiatrist, provides medication and follow-up treatment. The system allows Dalhousie psychiatrists to provide NWT residents with all aspects of psychiatric care, including travel clinics, consultations, and emergency assessments. Dalhousie psychiatrists are on site in the NWT for approximately 19 weeks per year and provide services via tele-psychiatry for an additional 14 weeks per year (GNWT-HSS 2014o).

The GNWT is planning to develop a request for proposal to design and deliver a mobile substance abuse treatment program in 2014 (GNWT-HSS 2014o). They have also contracted a review of best practices in detoxification and the development of detoxification program options at the community, regional, and territorial levels.

Mental health programs currently available in the NWT are summarized in Table 3.6-16.

Table 3.6-16 Government of Northwest Territories Mental Health and Addiction Programs, 2014

Program	Function	Objectives	Beneficiaries
Community Counselling Program	Helping people deal with a variety of issues including mental health issues, addictions, and family violence	Helping determine client needs and develop a treatment plan; assessing a client's readiness for treatment; supporting development of skills to cope with stress and prevent relapse	All residents
Healthy Family Program	Voluntary home visitation program	Providing support to families with children, including children with special needs; helping promote healthy childhood growth and development, positive parenting, and parent-child bonding	Families
My Voice, My Choice	Drug and alcohol awareness campaign	Imparting prevention and awareness messaging and profiling "good news stories" of healing and recovery	Youth aged 13 to 18
National Aboriginal Youth Suicide Prevention Strategy	Addressing high rates of youth suicide and its risk factors among Aboriginal youth	Providing opportunities for Aboriginal communities to design, develop, and participate in projects to reduce suicide within their communities	First Nations, Inuit, and Métis youth, their families, and communities.
Not US!	Raising awareness about drugs and encourage communities to get active and have youth involvement	Discouraging substance abuse as well as the illegal sale of drugs	All residents, youth
On-the-land programs	Helping support positive health by including a diverse range of cultural/traditional experiences traditional knowledge and the wisdom of elders as well as modern approaches and best practices for treating addictions	Helping communities offer on-the-land and traditional healing options for mental health and addictions programming	All residents, specifically First Nations and Inuit

Source: GNWT-HSS (2014o).

3.6.7.4 *Health and Wellness Programs*

Several federal and territorial government programs have been implemented to promote and meet the health and well-being needs of territorial residents. Health and wellness programs currently available in the NWT are summarized in Table 3.6-17.

Table 3.6-17 Government of Northwest Territories Health and Wellness Programs, 2014

Program	Function	Objectives	Beneficiaries
Aboriginal Head Start	Early intervention program (preschool)	Preparing young children for school by meeting their spiritual, emotional, intellectual and physical needs	First Nations, Inuit, and Métis children and families
Aboriginal Diabetes Initiative	Diabetes reduction program	Reducing type 2 diabetes among Aboriginal people by supporting health promotion and primary prevention activities and services.	Aboriginals
AIDS Community Action Program	Preventing the spread of HIV	Ensuring treatment, care, and support for people living with HIV and AIDS, their caregivers, families and friends; minimizing the adverse impact of HIV/AIDS on individuals and communities; and minimizing the impact of social and economic factors that increase individual and collective risk for HIV infection	All residents
Brighter Futures	Assisting First Nations and Inuit in developing community-based approaches to health programs	Improving the quality of, and access to, culturally sensitive wellness services in the communities	First Nations and Inuit children from ages 0 to 6 years, their families and communities
Canada Prenatal Nutrition Program	Helping communities develop improved and comprehensive services for pregnant women (Special First Nations and Inuit program)	Promoting breastfeeding, improving diets and nutrition, helping women feed their infants	All pregnant women who may be at risk for their own health and development of their babies
Children's Oral Health Initiative(a)	Addressing disparity between oral health of First Nations and Inuit and that of the general Canadian population	Preventing and treating dental disease and promoting good oral health practices	First Nations and Inuit – pregnant women, children 0 to 7
Community Action Program for Children	Funding community-based coalitions for children at risk	Establishing and delivering services to meet the developmental needs of children in conditions at risk	Low-income families; teenage-parent families; children at risk of, or who have, developmental delays, social, emotional or behaviour delays; and/or are neglected/abused
Fetal Alcohol Spectrum Disorder Program ^(a)	Addressing issues of FASD in community	Prevention, identification, and awareness of FASD	First Nations and Inuit
Healthy Children Initiative	Supporting development of children	Focusing on prevention and promotion, with services such as primary intervention and therapeutic services	Families with children (from prenatal to age six)

Table 3.6-17 Government of Northwest Territories Health and Wellness Programs, 2014

Program	Function	Objectives	Beneficiaries
Health Promotion Strategy Fund	Assisting communities with healthy promotion initiatives	Assisting communities working on tobacco harm reduction/cessation, active living, healthy pregnancies, and injury prevention	All residents
Hepatitis C Prevention, Support and Research Program	Preventing, supporting, and researching hepatitis C	Preventing, supporting, and researching hepatitis C	All residents
Home and Community Care Program ^(a)	Providing home and community care services	Assisting with home and community care services for those with chronic and acute illnesses	First Nations and Inuit communities
Population Health Fund	Providing project funding to improve population health	Increasing community capacity for action on or across determinants of health	All residents

Source: GNWT-HSS (2014p).

a) Funded by Health Canada, Source: Health Canada (2012).

HIV = human immunodeficiency virus; AIDS = acquired immunodeficiency syndrome; FASD = Fetal Alcohol Spectrum Disorder.

These programs seek to improve the well-being of NWT children, families, and communities (GNWT-HSS 2014p). They address well-being concerns facing the NWT and LSA communities, including diet and nutrition, human immunodeficiency virus (HIV), hepatitis C, fetal alcohol spectrum disorder, children at risk, and addictions. They provide services that incorporate culture, language, environment, and leisure (Health Canada 2012; GNWT-HSS 2014p).

3.6.7.5 *Health Care Challenges and Forecast*

Several factors make the delivery of health care in the North challenging. Some of these factors, such as the increasing costs of health technologies and drugs, are largely beyond the Department of Health and Social Services' control (OAG 2011). In addition, the distance and isolation between communities in the NWT limits people's access to health care in their own community. The two major highways in the territory reach fewer than half of the RSA communities, and many remote communities can only be accessed by airplane or on winter ice roads.

Due to these geographical factors, there is heavy reliance on the health care system in Yellowknife and out-of-territory specialists, specifically Edmonton. From 2008 to 2009, just over 11,000 patients in the NWT travelled for health services (OAG 2011). Medical travel in the 2008 to 2009 fiscal year cost approximately \$19 million, a 30% increase from the prior fiscal year. Factors that influence these high costs include increasing volumes, the non-availability of some specializations within the territory, and contractor costs (OAG 2011).

Currently, the NWT does not have a standardized system to provide a designated point of contact for urgent clinical support assistance in remote areas (GNWT-HSS 2014g). The GNWT-HSS is implementing a new service called Med-Response, which will bridge this service gap by providing a telephone number for 24-hour access to a medical practitioner. In addition, Med-Response will also coordinate all NWT air ambulances to ensure air ambulance flights connect with critical patients as soon as possible (GNWT-HSS 2014g). This service will create a network of pooled expertise to support healthcare providers in remote communities, and create oversight for medical evacuations.

Recruiting and retaining physicians, nurses, and other health care professionals is a key issue for the NWT healthcare system. Recruitment of health professionals is challenging due to geographical remoteness, socio-economic realities, and the persistent shortage of physicians and nurses across Canada (OAG 2011). As a result, health services rely on temporary staff to fill vacant health positions and deliver services. Locums, or physicians hired on a temporary basis, help meet the need for physicians. Staff from a relief pool of nurses meets the need for registered nurses or nurse practitioners (OAG 2011). While health services are maintained within the territory by using staff under contract, this solution costs more than retaining permanent staff due to the associated cost of flights and accommodation (OAG 2011).

The GNWT-HSS seeks to recruit medical staff through its network of contacts within the medical profession, presentations to various health professional associations, and an online recruitment tool, PracticeNorth.ca (OAG 2011). The Department of Human Resources is also involved in these recruitment efforts and it is working towards developing a comprehensive resource recruitment and retention plan for the NWT health care system. In 2012, a Service Partnership Agreement pilot was implemented between the two departments to have greater clarity and transparency around the roles, responsibility, and standards of human resource management in the GNWT (GNWT-Human Resources 2013b).

To aid in the recruitment of health care professionals to the NWT, the GNWT has developed a series of programs and services, including an Advanced Nurse Mentorship Program, the Community Health Nurse Development Program, and the Nurse Graduate Employee Program, as well as several academic and practicum or preceptorship (teaching) bursaries (GNWT-HSS 2011h,i).

In 2008, the average turnover rate for HSSAs in the RSA communities was 18% (GNWT-Human Resources 2008) (Table 3.6-18). Since then, the average turnover rate has decreased in two of the health authorities within the LSA. The YHSSA and Stanton Territorial Hospital have seen decreased employee turnover, while the Tłıchq Community Services Agency has experienced an increase. The total average for employee turnover of the regional HSSAs has decreased slightly from 2008 to 2012 by nearly 1%, but has overall remained largely unchanged.

Table 3.6-18 Total Employee Turnover Rate of the Regional Health and Social Services Authorities Overseeing the Local Study Area Communities, 2008 and 2012

Community	% Turnover	
	2008	2012
Yellowknife Health and Social Service Authority	17.6	11.4
Stanton Territorial Hospital	15.6	11.7
Tłıchq Community Services Agency	13.9	21.9
Kitikmeot Health Board	n/a	n/a
Total Average	15.7	15.0

Sources: GNWT-Human Resources (2008; 2013b).

% = percent; n/a = not available.

3.6.7.6 Community Services and Programs

The GNWT-HSS is the main provider of social services in the NWT, including the LSA communities. These services include adoptions, adult services, child and family services, family enhancement (Healthy Family Program), foster care, family counselling, and special health benefits (YHSSA 2014d).

In addition to the services provided by the GNWT-HSS, non-governmental organizations also operate within the NWT. These organizations provide additional social services such as alcohol and addiction support groups, mental health and addiction referrals, early childhood development programs, family violence shelters, food banks, and other health promotion services (GNWT-HSS 2014g).

Mental health, addiction, and social services operated by the GNWT-HSS and non-governmental organizations within the LSA communities are highlighted in Table 3.6-19.

Table 3.6-19 Overview of Mental Health, Addiction, and Social Services, Northwest Territories and Local Study Area Communities, 2014

Community	Name of Social Service Centre or Facility	Service	Beneficiaries
Behchokò	Behchokò Counselling Services	Counselling/support groups	All
	Behchokò Friendship Centre	Addiction needs	All
	Behchokò Housing Authority	Public housing agency	All
	Behchokò Social Services	Social services office	All
	Jimmy Erasmus Senior Citizens Home	Residential care	Elders
	Tìchqò Community Services Agency	Education, child welfare	All
Dettah	Use of Yellowknife Services	n/a	n/a
Fort Resolution	Community Counselling Program	Counselling/rehabilitation centre	All
	Deninu Health and Social Services Office	Social service office	All
	Fort Resolution Elders' Facility	Supported living	Elders
	Fort Resolution Social Services	Social service office	All
Gamèti	Gamèti Social Services	Serviced by Behchokò	All
Lutsel K'e	Lutsel K'e Community Wellness Agency	Addictions counselling/ programs	All
	Lutsel K'e Social Services	Social service office	All
N'Dilo	Use of Yellowknife Services	n/a	n/a
Wekweèti	Dechi Laot'I First Nations	Addiction program counselling	All
	Wekweèti Social Services	Serviced by Behchokò	All
Whatì	Whatì Social Services	Social services office	All
Yellowknife	Adult Foster Care	Adult care services	Adult
	Bosco Home – Territorial Treatment Centre	Crisis intervention/assessment	Children and newborns
	Bosco Homes Trailcross Treatment Centre	Crisis intervention/assessment	Youths
	Native Women's Association	Assisting in RCMP situations	Women
	Northern People First Ltd.	Independent living	Challenged individuals
	Stanton Territorial Health Authority Meals on Wheels	Daily meals	Seniors/others
	Yellowknife Association for Community Living	Independent living	Challenged individuals
	Yellowknife Association for Concerned Citizens	24-hour nursing care	Seniors
	Yellowknife Women's Centre and centre for Northern Families	Emergency assistance, counselling support	Women
	YMCA	Independent living Basic life skills training	Women/youths

Source: GNWT-HSS (2014q).

n/a = not available; RCMP = Royal Canadian Mounted Police .

3.6.7.6.1 *Shelters*

Seven emergency shelters service the LSA communities (Table 3.6-20).

Table 3.6-20 Emergency Shelters and Support Programs, Local Study Area Communities

Location	Name	Services Provided	Capacity (2011)
Yellowknife	Centre for Northern Families	Temporary shelter for women, community advocacy program daycare	23
Yellowknife	SideDoor	Emergency drop-in centre for youth, after school program, evening drop-in centre, overnight drop-in center	3 (couches)
Yellowknife	Salvation Army	Emergency shelter for single men – withdrawal management services, community drop-in clinic	30 (mats) 20 (bunk beds)
	Salvation Army– Bailey House Transitional Home	Transitional home for men – withdrawal management services, community drop-in clinic	32 self-contained bachelor apartments ^(a)
Yellowknife	YWCA – Alison McAteer House	Crisis support, life skills support, household items for women and children of family violence	6 bedrooms with capacity of 12 beds ^(b)
	YWCA – Rockhill Emergency and Transition Housing	Crisis support, life skills support, source of household items; temporary housing for up to 12 months	39 suites ^(c)
Kugluktuk ^(d)	Kugluktuk Women's Crisis Centre	Shelter for victims	n/a

Sources: Homeless Hub (2011); Yellowknife (2009).

a) Source for capacity of Bailey House Transitional Home is Salvation Army (2010).

b) Source for capacity of Alison McAteer House is YWCA (2014a).

c) Source for capacity of Rockhill apartment complex is YWCA (2014b).

d) Source for Kugluktuk is Government of Nunavut – Department of Family Services (2010).

n/a = not available.

The other LSA communities do not have emergency shelters. As a result, women and children have to leave their communities if they wish to use these services. This geographic barrier prompts many to stay in a potentially abusive or dangerous situation. A small change in their circumstances (e.g., losing their employment, becoming ill) may throw them into “hidden homelessness” (i.e., staying with friends or family or anyone who will provide shelter). If this situation becomes untenable (e.g., they are no longer welcome, they are experiencing abuse), they can end up in a shelter, if one is available, or on the streets (absolute homelessness). If they return to an abusive situation to have shelter for themselves and their children, they are then back in a hidden homelessness situation (Yellowknife Homelessness Coalition 2009).

3.7 Physical Infrastructure

3.7.1 Housing

3.7.1.1 *Housing and Housing Stock*

Accommodation investment is cyclical, and economic conditions have been a major factor in the rise and fall of housing costs in the NWT. Investment in residential construction has varied in recent years, increasing to a recent high of \$97.7 million in 2009 and decreasing for the subsequent years, with a slight increase in 2012 to \$75.8 million (Table 3.7-1). The total number of new dwellings in the NWT has been decreasing since 2009, with only 11,343 in 2012 compared to the 40,296 in 2009.

Table 3.7-1 Housing Sector Investment, Northwest Territories, 2005 to 2012

Year	Annual Total (\$, thousands)	Investment in New Dwellings (\$, thousands)			Other Investment (\$, thousands)			
		Total	Singles	Apartments	Conversion	Acquisition Costs	Improvement	Mobiles
2012	75,768	11,343	5,079	6,255	96	1,962	59,520	2,847
2011	75,034	11,474	6,569	4,440	166	2,151	56,945	4,298
2010	85,875	26,297	11,424	13,184	130	3,113	51,419	4,916
2009	97,704	40,296	20,573	17,185	150	5,392	49,204	2,582
2008	72,970	21,087	14,797	5,930	350	2,086	46,876	2,571
2007	81,795	35,324	22,559	12,423	149	4,021	41,303	998
2006	75,723	31,022	16,903	13,992	165	2,570	40,382	1,584
2005	98,018	42,483	18,407	20,693	223	4,843	36,363	14,106

Source: GNWTBS (2013n).

\$ = Canadian dollars.

Most residential building permits were issued between 2008 and 2009. By 2011, permit applications had dropped to less than 2006 levels, with some recovery the following year (Table 3.7-2).

Table 3.7-2 Value of Building Permits, 2003 to 2012

Year	Total Annual: Residential and Non-residential (\$, thousands)	Residential	Non-residential (\$, thousands)			
			Total	Industrial	Commercial	Institutional and Government
2012	44,197	20,837	23,360	3,277	13,035	7,048
2011	21,081	11,512	9,569	1,051	8,413	105
2010	74,411	20,332	54,079	5,707	22,962	25,410
2009	164,691	20,083	144,608	6,209	46,388	92,011
2008	87,351	17,422	69,929	2,667	49,791	17,471
2007	74,022	19,414	54,608	5,031	36,805	12,772
2006	37,672	17,406	20,266	1,429	11,014	7,823
2005	68,729	27,587	41,142	7,166	32,846	1,130

Table 3.7-2 Value of Building Permits, 2003 to 2012

Year	Total Annual: Residential and Non-residential (\$, thousands)	Residential	Non-residential (\$, thousands)			
			Total	Industrial	Commercial	Institutional and Government
2004	105,251	46,722	58,529	3,403	46,274	8,852
2003	86,217	50,688	35,529	4,253	22,558	8,718

Source: GNWTBS (2013n).

Note: Value of building permits issued by municipalities.

\$ = Canadian dollars.

Public housing in the NWT is operated by the NWT Housing Corporation (NWT HC). The NWT HC has partnership agreements with local housing organizations to assist in the management of housing assistance programs and housing units (NWT HC 2014a). Currently, the NWT HC operates more than 2,400 public housing units, which are managed by local housing organizations in 27 communities in the NWT (NWT HC 2014b).

The NWT HC's Transitional Rent Supplement Program aims to support residents with low to moderate incomes who are living in private market rental housing (NWT HC 2014c). This housing subsidy program provides relief for individuals and families who are paying more than 30% of their income towards shelter costs with subsidies of up to \$500 a month for a maximum period of two years (NWT HC 2014c). This program is not designed to be combined with other forms of government assistance or housing subsidies and the maximum income is set by core need income thresholds.

The core need income threshold is the income limit identified for each community that serves as the minimum amount of income a household must have to own and operate a modest home or to rent a home without government assistance (NWT HC 2014c). The formulation considers the amount of mortgage payment (25-year amortization) and shelter costs, which include utility, insurance, and maintenance costs (NWT HC 2014c). This financial test helps the NWT HC identify and prioritize households in need and determine the appropriate assistance levels (NWT HC 2014d). Comparing the records from 2004 to 2009, the core need income thresholds income limits increased in all of the LSA communities (Table 3.7-3).

Table 3.7-3 Community Core Need Income Thresholds, 2004 and 2009

Community	1 Bedroom		2 Bedrooms		3 Bedrooms		4 Bedrooms		5 Bedrooms	
	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)
Behchokò	n/a	77,200	53,500	89,700	61,000	102,000	67,000	113,300	n/a	131,700
Dettah	n/a	68,200	54,500	80,100	62,500	91,600	70,000	102,400	n/a	119,800
Fort Resolution	n/a	71,000	52,000	82,400	59,500	93,600	66,500	104,000	n/a	120,700
Gamètì	n/a	74,600	56,000	87,700	64,500	101,000	72,000	113,200	n/a	132,800
Lutsel K'e	n/a	68,500	59,000	80,500	67,500	92,400	75,000	103,300	n/a	121,100
N'Dilo	n/a	67,100	53,500	78,800	61,500	90,100	68,500	100,600	n/a	117,600

Table 3.7-3 Community Core Need Income Thresholds, 2004 and 2009

Community	1 Bedroom		2 Bedrooms		3 Bedrooms		4 Bedrooms		5 Bedrooms	
	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)	2004 (\$)	2009 (\$)
Wekweètì	n/a	74,300	61,500	87,400	70,000	100,600	78,000	112,700	n/a	132,200
Whatì	n/a	73,400	69,000	86,200	79,000	99,100	88,500	111,000	n/a	130,200
Yellowknife	43,500	81,500	53,500	92,100	63,500	103,200	75,500	113,400	84,000	129,800

Source: NWT HC (2009a,b); GNWTBS (2004).

Note: 2009 housing data are the most recent data available.

n/a = not available or not applicable; \$ = Canadian dollars.

The NWT HC offers the following home-ownership programs for NWT residents under the Housing Choices program structure (NWT HC 2013):

- **Contributing Assistance for Repairs and Enhancements (CARE):** The CARE program assists existing homeowners make repairs to their homes to ensure a safe and healthy residence as well as increase the useful economic life of their homes. A forgivable loan in the range of \$10,000 to \$90,000 is available to subsidize the cost of preventative maintenance checks, repairs, and renovations of an existing home. This program also has assistance for preventative maintenance and minor repairs for up to \$3,000 annually.
- **Homeownership Entry Level Program (HELP):** The HELP program assists prospective first-time homebuyers. Residents in the NWT who are not able to secure mortgage financing or are unsure of their responsibilities as homeowners are given the opportunity of experiencing homeownership commitments before purchasing a home. Applicants pay 20% of their gross income towards the lease payment and shelter costs. After a two-year lease period, tenants are eligible to receive an equity contribution towards a home purchase.
- **Providing Assistance for Territorial Homeownership (PATH):** The PATH program assists potential homeowners construct or purchase a modest home in the form of forgivable loans. The client obtains any additional money required for the client's project through an approved financial institution or other verifiable source. The amounts are determined using income level, family size, and the community-based construction costs.
- **Securing Assistance for Emergencies (SAFE):** The SAFE program is an emergency repair program for issues such as freeze-ups and furnace failures. Up to \$10,000 is available for assistance for emergency repairs, excluding freight costs, for low to modest income homeowners (including seniors on fixed incomes). This program is not limited to once in a lifetime, and payments to homeowners are based on the applicant's income.
- **Solutions to Educate People (STEP):** The STEP program provides a four-course education program as well as counselling assistance designed to prepare participants for the requirements of homeownership. This program aims to increase home ownership applicants' knowledge of the home purchase process, basic home maintenance repairs, and financial skills.

The NWT HC introduced a new rent scale in 2012 that aims to help improve the cost of living in NWT, lessen dependency on government programs, and address the disincentive to work (NWT HC 2014e). Key elements of the new rent scale include the following (NWT HC 2014e):

- Rent is based on a household's gross income.
- Seniors receive up to a \$1,000 per month deduction from their income.
- No household pays less than \$70 per month or more than \$1,625 per month in rent.
- For people at the minimum rent, rent is approximately 4% of their income. The maximum rent is approximately 19.5% of income.
- Rent variability is reduced: small changes in income due to short-term employment, per diems, or other short-term payments may not result in a change in rent.
- Consistency between communities is increased: rent is the same at various income levels in communities with similar cost of living.

The rent scale for the three zones in the NWT is summarized in Table 3.7-4.

Table 3.7-4 Public Housing Rent Scale by Gross Monthly Household Income in the Northwest Territories

Monthly Income (\$)	Monthly Rent (\$)		
	Zone A	Zone B	Zone C
1,667	80	75	70
1,667 – 2,499	160	150	140
2,500 – 3,749	365	345	325
3,750 – 4,999	610	580	555
5,000 – 6,674	890	845	790
6,675 – 8,333	1,295	1,230	1,155
8,334 and above	1,625	1,545	1,445

Source: NWT HC (2014e).

Notes: Zone A communities: Yellowknife; Zone B communities: Dettah, N'Dilo, Behchok, Fort Resolution, Gameti, Whati, Wekweeti; Zone C communities: Lutsel K'e.

\$ = Canadian dollars.

In 2010, the housing stock in Kugluktuk was 430 dwellings, of which 400 were occupied. The remaining 30 were either unoccupied or temporarily occupied by someone who lives elsewhere. Approximately 80% of houses were rented, while 20% were not owned by the resident. Public housing accounts for approximately two-thirds of the housing in Kugluktuk (NBS 2011).

The basic system of public housing delivery in Kugluktuk has residents apply to the local housing office. They are then either assigned or placed on a waiting list for social housing. Increasingly, waiting lists are the norm.

Rent is assessed based on ability to pay, with high-income earners paying the most. Under these circumstances, someone who begins employment and sees a sudden increase in income could experience a rent increase of up to more than tenfold upon finding employment (NHC 2013). To combat this sharp increase, the Government of Nunavut adjusted how rents were calculated for people entering the wage economy. As of 2013, rent is calculated on the income of the housing unit's two primary leaseholders. Minimum rents remain at \$60 per month, while a graduated income scale is employed to determine increased rents paid by wage earners in public housing. Further, should a tenant obtain employment or receive a raise that takes the tenant beyond an income threshold, the tenant's rent will not increase until September 1 of the following year. However, tenants whose employment ends (either through termination or the expiry of a seasonal contract) receive an immediate reduction in rent associated with their loss of income (NHC 2013).

3.7.1.2 *Housing Challenges and Needs*

Residents of the NWT face several housing challenges related to poverty. The issue of housing is linked with well-being, health outcomes, and overall quality of life (GNWT 2013c). Inadequate housing can have lasting effects on growth and development. Taking into consideration the size and remoteness of many communities in the NWT, housing is a key factor in the cost of living.

In the 2013 Anti-poverty Strategic Framework, housing is presented in the context of a housing continuum. This continuum can include emergency shelters, traditional and supportive housing, public and other social housing, market rentals, and home ownership (GNWT 2013c). These factors are often interconnected, and actions that support one element can affect other elements. Smaller communities that lack a private housing market would have different issues than larger communities, and these differences need to be represented in the housing supports provided (GNWT 2013c).

Residents in the NWT provided input for the Anti-poverty Strategy Framework, which drew attention to housing availability and affordability and to the need for solutions. Respondents wanted to ensure that housing programs and policies would not create barriers or disincentives for employment (GNWT 2013c). Different approaches are also needed for smaller and more remote communities that face different housing issues than for communities with a private rental market. Many small communities also need more workers skilled in house maintenance and repair (GNWT 2013c). In addition, NWT residents emphasized a need for safe houses and traditional housing.

In 2009, 2,755 NWT residents were in core need for housing, representing 19% of the NWT population (Table 3.7-5). The respondents experienced one or more housing challenges such as the following: adequacy (16%), affordability (14%), and suitability (8%) (GNWTBS 2010).

Table 3.7-5 Number of Households Experiencing Housing Challenges and Core Need, Northwest Territories and Local Study Area Communities, 2009

Community	# of Households	# of Housing Challenges ^(a)		Type of Problem						Core Need	
				Suitability		Adequacy		Affordability			
		#	%	#	%	#	%	#	%	#	%
Behchokǫ	467	351	75	147	31	275	59	78	17	223	48
Dettah	80	47	59	11	14	42	53	9	11	33	41
Fort Resolution	183	119	60	23	13	91	50	37	20	92	50
Gamètì	71	40	56	10	14	26	37	17	24	34	48
Lutsel K'e	111	67	60	19	17	44	40	28	25	51	46
N'Dilo	111	61	55	17	15	42	38	17	15	46	41
Wekweètì	35	21	60	5	14	20	57	2	6	17	49
Whatì	118	72	61	32	27	30	25	26	22	56	47
Yellowknife	6,742	1,435	21	300	4	305	5	928	14	614	9
NWT	14,522	4,593	32	1,110	8	2,361	16	2,031	14	2,755	19

Source: GNWTBS (2010).

a) Total number of housing problems total number of core need may be over the sum of the types of problems due to houses with more than one type of problem. Housing problems included in this survey are divided into three categories: suitability, adequacy, and affordability as defined by national standards.

= number; % = percent; NWT = Northwest Territories.

Suitability is defined as having the appropriate number of bedrooms for the characteristics and number of occupants, as determined by the National Occupancy Standard requirements. Adequacy refers to the physical condition of a dwelling and basic facilities such as running water, indoor plumbing, and bathing and washing facilities. Affordable housing refers to housing that costs less than 30% of household income and where shelter costs include utilities, insurance, property taxes, and housing payments (GNWTBS 2010). These housing challenges are often noted in the NWT, and are more acute for those who live in poverty, especially for single people, youths, and seniors (GNWT 2013c).

The core need income threshold represents the income amount a household requires to afford the cost of owning and operating a home, or renting in the private market without government assistance (NWT HC 2014f). A household is considered to be in core need if it has any one or combination of the housing challenges and a total household income below the community core need income threshold.

In 2009, the LSA communities of Fort Resolution (50%), Wekweètì (49%), Gamètì (48%), Behchokò (48%), Whatì (47%), and Lutsel K'e (46%) had the highest core needs for housing (Table 3.7-5) (GNWTBS 2010). In addition, these communities also faced the highest number of challenges concerning suitability, adequacy, and affordability. The highest rates of housing inadequacy were found in the LSA communities of Behchokò (59%), Wekweètì (57%), Dettah (53%), and Fort Resolution (50%).

3.7.1.3 Housing and Rental Costs

3.7.1.3.1 Apartments

The NWT, particularly Yellowknife, is experiencing high vacancy rates for apartment rentals. The Canada Mortgage and Housing Corporation (CMHC) 2010 and 2013 rental market surveys show that the vacancy rate for private apartment units in Yellowknife increased from 1.3% in April 2010 to 4.1% in October 2013 (CMHC 2010a; 2013a). Rents for apartments in the NWT and, more specifically, in Yellowknife have also increased (Table 3.7-6). In 2013, the average cost of renting a two-bedroom apartment was \$1,664, compared to \$1,302 in 2005.

Table 3.7-6 Apartment Rental Costs in Yellowknife, 2005 to 2013

Year	Rental Costs (\$)			
	Bachelor	One Bedroom	Two Bedroom	Three Bedroom Plus
2005	840	1,069	1,302	1,406
2009	953	1,255	1,473	1,587
2013	1,135	1,413	1,664	1,557

Source: CMHC (2010a, 2013a).

\$ = Canadian dollars.

3.7.1.3.2 Houses

The average resale cost of a home in the NWT increased from \$318,000 in 2008 to \$387,900 in 2012. Home sales in Yellowknife grew by 31% between 2011 and 2012 to 489 homes, which is the highest number of sales since 2000. Home starts were also high in 2012, with 147 new homes being constructed (CMHC 2010b, 2013b).

3.7.2 Recreational Infrastructure

3.7.2.1 Parks

The GNWT owns and operates territorial parks that are open from May 15 to September 15 (GNWT-ITI 2014b).

In November 2013, the LKDFN and Parks Canada Agency initiated the draft Thaidene Nee Establishment Agreement (Land of the Ancestors 2013). Thaidene Nene is a proposed National Park Reserve that will potentially create a large new protected area in the LKDFN lands.

3.7.2.2 Recreational Areas

Several activities, clubs, and programs offered in and around recreation facilities in the NWT are aimed at building healthy communities. Recreation facilities available in the LSA communities are listed in Table 3.7-7.

Table 3.7-7 Recreation Facilities Available to Residents, Local Study Area Communities, 2013

Community	Community Centre/Hall	Gymnasium	Arena	Swimming Pool	Park	Campgrounds	Lodges/Outfitters
Behchokò	1	3	1	1 (seasonal)	1	0	1
Dettah	1	1	0	0	0	0	1
Gamètì	1	2	1	0	0	0	0
Fort Resolution	1	1	1	1 (seasonal)	1	1	3
Lutsel K'e	1	1	1	0	0	0	0
Whatì	1	1	1	0	0	0	0
Wekweètì	1	1	1	0	0	0	1
Yellowknife	1	10	3	1 (year-round)	9	3	38
Kugluktuk	1	1	1	n/a	n/a	n/a	n/a
Bathurst Inlet	n/a	n/a	n/a	n/a	n/a	n/a	1
Umingmaktok	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Sources: Bathurst Inlet Lodge (2014a); Aarluk Consulting (2011); GNWTBS (2013b).

n/a = not available.

The Kugluktuk Golf Club has an 18-hole course located along the shores of Coronation Gulf. Hiking, camping, hunting, fishing, and snowmobile riding are popular outdoor activities in Kugluktuk (Nunavut Tourism 2013a). Kugluk (Bloody Falls) Territorial Park is an 8.5 square kilometre (km²) park located 15 km southwest of Kugluktuk. The park is a national historic site and has a campsite area below the falls.

3.7.3 Waste, Water, and Utilities Infrastructure

3.7.3.1 Waste Disposal

All but the largest communities in the NWT rely entirely on trucking for waste water disposal. Yellowknife's sewage is treated at Fiddlers Lake Lagoon with flows assisted by 11 lift stations. Available sanitation and waste disposal, and their associated road systems, are listed in Table 3.7-8.

Table 3.7-8 Waste Disposal Municipal Infrastructure in Local Study Area Communities, 2013

Community	Sanitation	Water Treatment ^(a)	Waste Disposal ^(b)	Road System
Behchokò	Trucked, piped	Class II treatment plant	Landfill	Gravel
Dettah	Trucked	None	Landfill	Gravel
Fort Resolution	Trucked	Class II treatment plant	Landfill	Gravel
Gamètì	Trucked	Small systems	Burn and landfill	Gravel
Lutsel K'e	Trucked	Small systems	Landfill	Gravel
Wekweètì	Trucked	Small systems	Burn and landfill	Gravel
Whatì	Trucked	Class I treatment plant	Burn and landfill	Gravel
Yellowknife	Trucked/piped	Class I treatment plant	Landfill	Paved
Kugluktuk ^(c)	Trucked	Treatment plant ^(b)	Landfill, burn and landfill	Gravel

Notes: Dettah does not have its own water treatment plant. The City of Yellowknife supplies water to this community through trucked delivery.

Class I treatment plant – uses filtration and chlorination to treat water; Class II treatment plant – uses screening, flash mixing and filtration to treat water; small system uses reusable filters to screen, UV disinfection, and chlorine addition to treat water.

a) Sources: GNWTBS (2013b); GNWT-MACA (2014a, b, c, d, e, f, g, h, i).

b) Source: MVRB (2013).

c) Source for Kugluktuk is from Aarluk Consulting (2011).

n/a = not available.

The City of Yellowknife's original landfill is slated to be sealed over by 2015 and the city is studying the proposed idea of a transfer station that would transfer processed waste into the landfill and e-waste to Edmonton. In addition, the city is investigating the expansion of its contaminated soil remediation pad and creating an outline for a city-wide composting program. Yellowknife's new landfill has been in use since 2012 and has an expected life span of five years based on city calculations (Northern Journal 2013a).

3.7.3.2 Water

All levels of government have responsibility for drinking water in the LSA communities.

Community governments are responsible for operating and maintaining water treatment plants.

The GNWT regulates water supply systems and offers certification, training, and support to operators of water treatment plants. In addition, the GNWT inspects water treatment plants and reviews water quality data from communities to ensure the quality of drinking water (GNWT-MACA 2011).

All communities are required to have a water licence under the *NWT Waters Act*. Water licences define the quantity of raw water a community can take and how to dispose of wastewater so that waterbodies are not harmed. Five water boards in the NWT issue water licences: the NWT Water Board and the Sahtu, Gwich'in, Wek'èezhìi, and Mackenzie Valley land and water boards.

Officers from Aboriginal Affairs and Northern Development Canada (AANDC) inspect the water, wastewater, and solid waste facilities to monitor compliance with water licence requirements. These requirements include annual reporting of water use and sewage disposal volumes, sampling of sewage effluent and landfill leachate, reporting of sampling results and spills, and development of operations and maintenance manuals (GNWT-MACA 2011).

3.7.3.3 *Water Treatment*

Raw water is tested regularly to monitor any changes to source waters that could potentially affect water treatment systems (GNWT-MACA 2011). Site-specific parameters are tested at various intervals, such as daily testing for turbidity, monthly bacterial testing, and annual chemical testing of raw water. Community governments are responsible for daily raw water testing and monthly bacterial testing. The raw and treated water quality data can be analyzed to determine the effectiveness of the water treatment process (GNWT-MACA 2011).

Exemptions to raw water bacteria sampling in the NWT include communities that receive their water from others and communities that only add chlorine to the water and do not have any other treatment. These communities do not need to take raw water chemical samples because no treatment process takes place to alter the water quality.

Most of the LSA communities have either a Class 1 or Class 2 water treatment system. The exceptions are Gamèti, Wekweèti, and Lutsel K'e, which have small system chlorination treatment. Dettah relies on trucked water from Yellowknife. A new water treatment plant has been approved in Yellowknife. The plant will comply with Canadian Drinking Water Guidelines set by Health Canada (Northern News Service 2013), which require water filtration instead of chlorine treatment (i.e., the current standard in Yellowknife).

Information about water sources, delivery systems, and infrastructure is provided in Table 3.7-9.

Table 3.7-9 Water Infrastructure, Local Study Area Communities, 2010

Community	Water Source	Delivery	Treatment
Behchokò	Marion Lake/West Channel	Trucked/piped	Class 2 water treatment plant
Dettah	Water provided from Yellowknife River	Trucked	n/a
Fort Resolution	Great Slave Lake	Trucked	Class 2 water treatment plant
Gamèti	Rae Lake	Trucked	Small system; chlorination
Lutsel K'e	Great Slave Lake	Trucked	Small system; chlorination
Wekweèti	Snare Lake	Trucked	Small system; chlorination
Whati	Ground water well	Trucked	Class 1; chlorinated, treated for hardness, iron and manganese
Yellowknife	Yellowknife River	Trucked/piped	Class 1; chlorination and fluoride disinfection
Kugluktuk ^(a)	Coppermine River	Trucked	Chlorination

Source: GNWT-MACA (2014a,b,c,d,e,f, g).

a) Source for Kugluktuk is Williams Engineering (2014).

n/a = not applicable or not available.

3.7.3.4 *Power and Utilities*

Electricity generated by diesel generators and hydro power is available in the NWT via two main operators, Northwest Territories Power Corporation and Northlands Utilities Ltd. Nunavut Power is the main operator of generators and supplier of electricity in Kugluktuk (Government of Nunavut 2013). The type of electricity supply and the supplier for each LSA community are listed in Table 3.7-10.

Table 3.7-10 Electricity Infrastructure, Local Study Area Communities, 2013

Community	Type of Electricity Supply	Supplier of Electricity
Behchokò	Hydro/diesel backup	NTPC
Dettah	Hydro/diesel	NTPC
Fort Resolution	Hydro/diesel backup	NTPC
Gamèti	Diesel	NTPC
Lutsel K'e	Diesel	NTPC
Wekweèti	Hydro	Northlands Utilities Ltd.
Whati	Diesel/waste heat recovery system	NTPC
Yellowknife (including N'Dilo)	Hydro/diesel	Northlands Utilities Ltd.
Kugluktuk ^(a)	Generator	Nunavut Power Corporation

Source: GNWTBS (2013b).

a) Source for Kugluktuk is Government of Nunavut (2013).

NTPC = Northwest Territories Power Corporation.

As of 2014, the Northwest Territories Power Corporation operated the following three hydro-powered generation systems:

- The Snare System, north of Yellowknife, supplies Behchokò, Dettah, and Yellowknife (including N'Dilo) with up to 30 megawatts (MW) of power. Four separate hydro power plants are on the Snare River: Snare Rapids (commissioned in 1948), Snare Falls (commissioned in 1961), Snare Cascades, and Snare Forks (commissioned in 1975). The Snare Cascades facility, opened in 1996, is a 4.3 MW run-of-river plant owned by the Dogrib Power Corporation (NTPC 2014a).
- The Taltson System, near Fort Smith, supplies Fort Resolution and other nearby communities with up to 18 MW of power (NTPC 2014a).
- The Bluefish System opened in 2012, replacing the 70-year-old timber crib dam at the headwater of the Yellowknife River. It can supply up to 20% of Yellowknife's electricity needs, equivalent to approximately 11 million litres of diesel fuel each year.

In conjunction with the Snare System, the new Bluefish hydro dam can supply a safe and reliable source of energy to Yellowknife and other communities in the North Slave region for many years (NTPC 2014a).

Lutsel K'e, Gamèti, and Whati rely solely on diesel generation from the following:

- Lutsel K'e's diesel plant consists of three diesel generators rated at 180, 320, and 320 kilowatts (kW).

- Gamèti's diesel plant has three generators rated at 100, 212, and 300 kW.
- Whatì is powered by a 480 kW generator, and the school is heated by a residual heat recovery system (NTPC 2014b).

Plans to develop additional hydro power in the LSA have been underway for several years and are focused on assessing the existing Taltson System. The Taltson Hydroelectric Expansion Project, proposed in 2008 by Dezé Energy Corporation, sought to link the Snare hydro grid with the Taltson System by way of a 900 km transmission line, then branch to the Snap Lake, Diavik, and Ekati mines (Northern Journal 2013b). The new transmission line would offset the diesel-generated electricity at the existing mines in the North and South Slave regions. It would also link several communities that are currently using generators to the hydro grid along the way. The Taltson Hydroelectric Expansion Project would produce renewable hydro energy of up to 56 MW, roughly twice the average needed to power Yellowknife. The project was put on hold in 2011 due to a lack of financing and to opposition from regional stakeholders, but was later noted as a key element in the GNWT's *Vision for the NWT Power System Plan*, released in December 2013 (Northwest Territories and Nunavut Chamber of Mines 2013).

3.7.4 Transportation Infrastructure

3.7.4.1 Roads

From 2003 to 2009, the GNWT directed \$130 million from the Canada Strategic Infrastructure Fund into highway improvements. From 2005 to 2014, \$200 million was invested in transportation under the Building Canada Plan. This funding has been used to widen, straighten, and improve driving services on NWT highways. Funding has also been used to improve highway safety programs and to lower operating costs for industry and motorists (GNWT-Transportation 2013a).

Six all-weather highways serve the RSA (Table 3.7-11). Highway 1 (Mackenzie Highway) is the NWT's longest highway and the main route connecting the NWT from southern Canada. Within the RSA, the Mackenzie Highway joins Highway 3, linking Behchokò and Yellowknife. Highway 4 (Ingraham Trail) extends 70 km east from Yellowknife and provides access to the community of Dettah. Highway 4 also includes the first section of the Tibbitt to Contwoyto Winter Road (TCWR), described below. Highway 6 is a 60 km route off Highway 5 to Fort Resolution on the southeast shore of Great Slave Lake.

The trucking industry in the NWT is large and has a considerable effect on the condition of roads in the NWT. In 2009, 520,000 tonnes of surface freight was transported into the NWT, with 241,000 tonnes arriving by truck (GNWT-Transportation 2011). The Mackenzie Highway was not constructed to withstand the year-round heavy industrial traffic associated with the resource development currently underway in the NWT (GNWT-Transportation 2013a). Highway 3 between Yellowknife and Behchokò requires major surface rehabilitation due to disturbances caused by the underlying permafrost. Without major work and surface rehabilitation, driver safety may be at risk on Highway 3. The Department of Transportation has reduced the driving speed on sections of the highway according to area conditions in response. Highway 4, which provides access to Dettah, has seen dramatic increases in industrial trucking activities due to mining developments in the Slave Geologic Province (GNWT-Transportation 2013a). The increased traffic creates safety concerns as commercial trucks mix with other vehicles on poor surface conditions.

Table 3.7-11 Transportation Infrastructure, Local Study Area Communities, 2013

Community	Highway Access	Marine Re-supply Facility	Airport or Airstrip	Air Terminal Building
Behchokq	All-weather access road Yellowknife Highway 3	No	No	No
Dettah	All-weather access road Winter access road Yellowknife Highway 3	No	No	No
Fort Resolution	All-weather access road Fort Resolution Highway 6	No	Yes	Yes
Gameti	Winter access road	No	Yes	Yes
Lutsel K'e	No	Yes	Yes	Yes
N'Dilo	n/a	n/a	n/a	n/a
Wekweeti	No	No	Yes	Yes
Whati	Winter access road	No	Yes	Yes
Yellowknife	All-weather access road Yellowknife Highway 3	No	Yes	Yes
Bathurst Inlet	No	n/a	N/a	n/a
Kugluktuk	No	Yes	Yes	Yes
Umingmaktok	No	n/a	n/a	n/a

Sources: GNWTBS (2013b); Government of Canada (2013b).

Note: There is no rail access to the LSA communities; GNWTBS (2013b); Access to Travel (2013).

n/a = information not available; LSA = local study area.

Exploration and development have increased over the past several years, bringing increased large and heavy truck traffic onto winter roads. Road alignment improvements are required to facilitate safe truck and rig movements associated with the oil and gas industry, and to improve the safety for the travelling public (GNWT-Transportation 2013a).

Winter roads in the NWT are built over frozen lakes and tundra, and are only open in winter, usually from approximately January to March. Winter roads are also built annually to connect to remote exploration and mine sites. Industry depends heavily on the TCWR for transporting construction bulk supplies, equipment, and personnel required for exploration to the existing diamond mines, including Dominion Diamond's Ekati Mine. The TCWR joint venture is a partnership between Dominion Diamond Ekati Corporation, Diavik Diamond Mines Inc., and De Beers Canada Inc. The TCWR starts 70 km north of Yellowknife and ends near the Diavik Mine (Nuna Logistics 2014). A typical season will see maximum full-load weights of 32 metric tonnes on an ice plate that is 40 inches thick.

Annual usage of the TCWR is indicated in Table 3.7-12.

Annual usage of the TCWR decreased overall between 1997 and 2009. Peak usage was in 2007, when 11,656 trucks travelled one way along the road. The increased number of trucks over the past few years has been due in part to the construction of the Snap Lake and Jericho mines (GNWT-Transportation 2009).

Table 3.7-12 Tibbitt to Contwoyto Winter Road Usage, 2006 to 2009

Year	Truck Loads	Tonnes of Freight
2006	7,310	184,376
2007	11,656	343,285
2008	7,455	258,341
2009	5,377	173,195

Source: GNWT-Transportation (2009).

3.7.4.2 Airports

Airlines play a key role in the RSA, carrying passengers and freight inaccessible by roads and barges. Some communities, with the exceptions of Dettah, N'Dilo, Behchokò, Umingmaktok, and Bathurst Inlet, have runways. All communities have scheduled services, with the exception of Dettah, N'Dilo, Behchokò, Fort Resolution, Umingmaktok, and Bathurst Inlet (GNWT-Transportation 2013b).

First Air and Canadian North are the largest airlines in the NWT. First Air has charter bases in Ottawa, Iqaluit, and Yellowknife (First Air 2014). Canadian North operates in the NWT and Nunavut, with select operations in Edmonton and Ottawa (Canadian North 2014). Based in Yellowknife, Air Tindi serves the communities of Whatì, Wekweètì, Gamètì, Behchokò, and Lutsel K'e (Spectacular NWT 2014a). Operators such as Aklak Air, Buffalo Airways, North-Wright Airways, Northwestern Air, and Summit Air also provide charter services to Yellowknife (Spectacular NWT 2014a; Summit Air 2013). Air Canada and WestJet offer scheduled trips to Yellowknife from Edmonton and Calgary. First Air operates daily flights to Kugluktuk from Yellowknife and Canadian North operates six days a week (Government of Nunavut 2013).

In 2011, the Yellowknife Airport opened a combined services building that houses the airport fire hall, equipment bays, and administrative space for trades and fire hall staff (GNWT 2011).

The airport facilities and infrastructure within the LSA communities are listed in Table 3.7-13.

Table 3.7-13 Airport Information for the Local Study Area Communities, 2013

Community	Weather and Communication Type	Runway Length	Runway Surface	Scheduled Air Services	Owner
Behchokq	Community is close to Yellowknife – no scheduled air service/runway				
Dettah	Community is close to Yellowknife – no scheduled air service/runway				
Fort Resolution	CARS	4,000 ft.	Gravel	No	GNWT
Gameti	CARS	3,000 ft.	Gravel	Yes	GNWT
Lutsel K'e	CARS	3,000 ft.	Gravel	Yes	GNWT
N'Dilo	Community is close to Yellowknife – no scheduled air service/runway				
Wekweeti	n/a	3,000 ft.	Gravel	Yes	GNWT
Whati	n/a	3,000 ft.	Gravel	Yes	GNWT
Yellowknife	FSS	7,500 ft. and 5,000 ft.	Asphalt	Yes	GNWT
Kugluktuk	n/a	n/a	n/a	Yes	Government of Nunavut

Sources: GNWT (2013b); Government of Nunavut (2013).

n/a = information not applicable or not available; CARS = community aerodrome radio station; FSS = flight service station; GNWT = Government of the Northwest Territories; ft. = feet.

3.7.5 Communication Infrastructure

Despite their remoteness, the smaller communities in the LSA have multiple communication services, including postal services, internet, satellite television, and telephone.

Northwestel, a subsidiary of Bell Canada, has had a near monopoly on telecommunications across the NWT, but competition is slowly expanding (Northwestel 2014a). Ice Wireless, the Northern roaming provider of Rogers, has 3G coverage in Yellowknife, Dettah, and Behchokq (Ice Wireless 2013). Telus Mobile services has recently expanded its 4G service in the Yellowknife market and is seeking to expand its 4G LTE coverage throughout more communities (Telus 2013).

Northwestel is still the primary internet provider in the NWT, but the wholesale reseller SSI Micro is providing competition (Northern Journal 2014). SSI Micro is providing broadband wireless internet service to the NWT under the Airware Network, and to Kugluktuk under the Qiniq Network (SSI Micro 2014). In 2013, Northwestel announced a \$233 million modernization plan that aims to provide a more advanced network infrastructure in Northern Canada, and 4G coverage to 99% of northerners (Northwestel 2014b). The communication structure available in the LSA communities is summarized in Table 3.7-14.

Northern News Services Ltd. owns five community newspapers within the NWT and one within Nunavut (Northern News Service 2014). The *NWT News/North*, headquartered in Yellowknife, is circulated in 33 NWT communities and reports on activities throughout the region. *The Yellowknife* is the main newspaper in Yellowknife and is published twice weekly, Wednesday and Friday (Northern News Service 2014).

Table 3.7-14 Communication Infrastructure, Local Study Area Communities, 2013

Community	Postal Service	Television (Satellite/Cable)	Radio Stations	4G Cellular Service
Behchokò	Full	Satellite	2	Yes
Dettah	Yellowknife	Satellite	0	Yes
Fort Resolution	Full	Satellite	2	Yes
Gamètì	Non-accounting	Satellite	1	No
Lutsel K'e	Non-accounting	Satellite	2	No
N'Dilo	n/a	n/a	n/a	n/a
Wekweèti	Non-accounting	Satellite	0	No
Whatì	Non-accounting	Satellite	1	No
Yellowknife	Full	Satellite	6	Yes
Bathurst Inlet	n/a	n/a	n/a	n/a
Kugluktuk ^(a)	Non-accounting	Satellite	1	No
Umingmaktok	n/a	n/a	n/a	n/a

Sources: GNWTBS (2013a,b,c,d,e,f,g,h).

Note: Non-accounting postal service is pick-up only, and no transactions such as money orders and collect on delivery service are available.

a) Kugluktuk source Northwestel (2013).

n/a = information not available.

3.8 Non-Traditional Land Use

3.8.1 Land Use and Management Plans

3.8.1.1 *Tłìchq Land Use Plan*

The Tłìchq Land Use Plan is a guide for future development of Tłìchq land and outlines how protection and development activities on Tłìchq lands should occur (Tłìchq Government 2013). The Tłìchq Government has sole ownership of the approximately 39,000 km² of land subject to the Tłìchq Land Use Plan, including the surface and subsurface rights (Tłìchq Government 2013). The Tłìchq Land Use Plan came into effect June 1, 2013, and represents part of the land component of the land claim of the Tłìchq. The Tłìchq Government decides on the use and related access to its land, and the Wek'èezhìi Land and Water Board manages the review and permitting of specific activities on Tłìchq lands. The board's issuance of land use permits and/or water licences generally requires Tłìchq Government support (Tłìchq Government 2013).

Land Protection Directives are the policies that will guide the Tłìchq Government's consideration of development proposals (Tłìchq Government 2013). The Land Protection Directives address a range of land use matters such as renewable resource management, environmental protection, and Tłìchq lands management. Fundamental to these protection measures is an acknowledgement of the need for continued environmental protection, which focuses on elements of the environment and on the continued ability of Tłìchq to use the resources of the Tłìchq land (Tłìchq Government 2013).

The Department of Culture and Lands Protection will determine the applicability of each Land Protection Directive because not all of the directives are applicable to all applications for land use. The Land Protection Directives consider impacts on the following:

- wildlife and harvesting;
- water quality;
- forest management;
- tourism;
- ecological representation;
- Tłıchq Land Use Guidelines;
- resource development;
- caribou;
- cumulative effects and cumulative effects framework;
- climate change;
- traditional and scientific knowledge;
- contaminated sites;
- community protection from forest fires;
- third-party interests;
- non-Tłıchq lands;
- economic development and Tłıchq lands;
- community engagement;
- communication;
- inspection and enforcement; and,
- additional information and study on Tłıchq lands.

3.8.1.2 *Yellowknife Land Use Plans*

In Yellowknife, the Planning and Lands Division manages the preparation and implementation of land use plans, including the Smart Growth Development Plan, 2011 General Plan, and the Yellowknife Harbour Plan (Yellowknife 2013a).

The Smart Growth Development Plan adopted the following principles, which will be applied to daily, intermediate, and long-term planning decisions (Yellowknife 2010):

- community collaboration;
- fair and equitable sharing of development responsibilities;
- placemaking;
- housing;
- open space and natural areas;
- redevelopment and investment;
- development form;
- transportation;
- promotion of clean energy; and,
- regional awareness.

The 2011 General Plan was adopted in March 2012 and focused on a 10-year planning horizon for Yellowknife (Yellowknife 2011). It included information about residential land development, intensification compatibility, regional coordination, land use designations, character areas, municipal servicing, and parks, trails, and open space network. The plan integrated the 50-year growth and development framework outlined in the Smart Growth Development Plan and extensive community consultation to create growth targets and development strategies for the next 10 years (Yellowknife 2011).

The Yellowknife Harbour Plan was developed to provide a long-range strategy for the Yellowknife Bay Harbour. It includes six guiding frameworks: natural heritage; harbour users; parks and open space; trails; art, heritage, and culture; and neighbourhood and districts (Yellowknife 2013b).

3.8.1.3 *Akaiicho Territory Agreements*

Currently, the Akaiicho Territory Government (including the Yellowknives [Dettah and N'Dilo] Dene First Nation [YKDFN], Deninu K'ue First Nation, Łutselk'e First Nation, Salt River First Nation, and Smith's Landing First Nation) has its own internal processes for determining the use of lands and water (Akaiicho Interim Measures Agreement Implementation Office 2001). The Akaiicho Territory Dene First Nations signed a Framework Agreement on July 25, 2000, which established the process, items, and timetable for the Akaiicho Dene First Nation, the Government of Canada, and the GNWT to negotiate an agreement on land, resources, and governance issues (AANDC 2007). As of 2014, the three parties were negotiating an agreement-in-principle (AANDC 2014b).

3.8.2 Parks and Protected Areas

There are no protected areas located near the LSA communities of Kugluktuk, Umingmaktok, and Bathurst Inlet, in Nunavut (Environment Canada 2013a). There are no migratory bird sanctuaries near the LSA communities in the NWT (Environment Canada 2013b).

Yambahti is a protected areas strategy area of interest that encompasses the Yamba Lake watershed in the eastern portion of the Wek'èezhii Resource Management Area (NWT Protected Areas Strategy 2012). Its proposed boundaries border the Ekati Mine. The Tundra Ecosystem Research Station is located on the north shore of Daring Lake where it provides environmental research and monitoring programs (NWT Protected Areas Strategy 2012).

The area is considered part of the ancestral lands of the Tłıchǫ, and there is evidence of long-term traditional use by Tłıchǫ people as well as YKFDN, Métis, and Inuit. A key element contributing to the ecological significance of this area is the vast system of eskers found there. Eskers, which are winding narrow ridges of sand or gravel, provide denning habitats for a variety of predator species such as wolves, foxes, and bears and offer habitat for the Bathurst caribou herd during a large part of its year-round movements (NWT Protected Areas Strategy 2012).

In 2010, the Tłıchǫ Government submitted a formal request and proposal to the GNWT to sponsor the Yambahti area as a Critical Wildlife Area. Preliminary assessment work has been completed, and currently the GNWT is working with the Tłıchǫ Government to refine the study area boundary and progress towards official sponsorship (NWT Protected Areas Strategy 2012).

Dinàgà Wek'èhodì, east of Behchokò, is an area of approximately 590 km² of the northern portion of the north arm of Great Slave Lake and includes the mainland shoreline, numerous islands, and the water of the lake itself. It was identified for protection by the Tłıchǫ Government, and is culturally important to the Dene and Métis for hunting and fishing activities. This area is classified as an Important Bird Area in Canada and is a key migratory bird site in the NWT. On October 9, 2013, an Order in Council granted interim land withdrawal of surface and subsurface rights until September 27, 2015 (NWT Protected Areas Strategy 2013).

In November 2013, the LKDFN and Parks Canada Agency initiated the draft Thaidene Nene Establishment Agreement, one of the stepping stones towards establishing the Thaidene Nene National Park Reserve (Land of the Ancestors 2013). The park will potentially create a large new protected area of 30,000 km² in the LKDFN, at the eastern end of Great Slave Lake (Parks Canada 2011).

The Coppermine River is a nominated Canadian Heritage River in Nunavut. Ancient archaeological campsites are common along the river as it was a well-used travel route for many groups of indigenous people (Government of Nunavut – Environment 2008). Several commercial operators offer canoe, river raft, and kayak trips on the Coppermine River. Wildlife viewing along the river is common since red foxes, Arctic foxes, tundra wolves, and wolverines have dens along the riverbanks. Kugluktuk lies at the mouth of the Coppermine River, which makes it a convenient river to travel since boats and paddlers can be flown out on commercial flights rather than requiring chartered aircraft (Nunavut Tourism 2013b).

The Kugluk (Bloody Falls) Territorial Park is located 13 km from Kugluktuk and west of Coppermine River (Nunavut Parks 2014). The 8.5 km² park is one of Nunavut's few parks with a shared history between the Inuit and the Dene Indians. This was once a travel corridor of the Coppermine River valley, with fish forced into shallow channels at the falls, providing easy fishing for people (Nunavut Tourism 2013b). Licensed outfitters can take visitors into the park by motorboat, hiking, or all-terrain vehicle.

3.8.3 Hunting, Fishing, and Outfitting

3.8.3.1 *Hunting*

Non-Northern residents must use an outfitter to hunt big game in the NWT. Hunting licences are also required for hunting small game, and wildlife tags are required for hunting big game (GNWT-ENR 2013b).

Hunting is not permitted within territorial parks, national parks, park reserves, and protected national historic sites (GNWT-ENR 2013b). However, outfitting hunting is allowed in Nahanni National Park expansion area.

Hunting in the Tłı̄ch̄ Wek'èezhìi Management Area, an area that includes Wekweètì, Gamètì, Whatì, and Behchokò, is subject to terms and conditions in accordance with the Tłı̄ch̄ Agreement (GNWT-ENR 2013b).

The NWT is divided into six wildlife management units. Gamètì, Wekweètì, Whatì, Behchokò, Yellowknife, N'Dilo, Dettah are located in Wildlife Management Unit R. Lutsel K'e and Fort Resolution are located in Wildlife Management Unit U. The hunting season for the LSA communities in the NWT is summarized in Table 3.8-1.

As of July 2013, surveys and information from traditional knowledge indicated that caribou herds were in low numbers across much of the NWT (GNWT-ENR 2013b). The Caribou Management Strategy for 2011 to 2015, which describes monitoring and management actions, is currently in effect to help support the continued recovery of the NWT's barren-ground caribou (GNWT-ENR 2011). The NWT Hunting Guide for 2013 to 2014 stated that hunting regulations for barren-ground caribou might be changing. Currently, hunting of barren-ground caribou is closed in Wildlife Management Units R and U (GNWT-ENR 2013b).

The hunting ban for barren-ground caribou has been in effect for a large area of the NWT since 2010, which has affected outfitting services in the region, in addition to subsistence harvesting in communities (Northern News Service 2011; CBC 2012b).

Table 3.8-1 Hunting Summary for Residents of Local Study Area Communities in the Northwest Territories

Wildlife Management Unit	Animals	Season
R and U	Black bear	August 15 to June 30
	Moose	September 1 to January 31
	Wolf	August 15 to May 31
	Wolverine	July 25 to April 30
	Ptarmigan and grouse	September 1 to April 30
R (exclusively)	Woodland caribou	July 15 to January 31

Source: GNWT-ENR (2013b).

A hunting licence is also required to hunt in Nunavut. Visitors are required by law to use licensed outfitters, as well as to have hunting licences and tags before embarking on a hunt. The Government of Nunavut – Department of Environment provides these hunting licences at offices in Nunavut, with a regional office located in Kugluktuk (Nunavut Tourism 2013c). Kugluktuk, Umingmaktok, and Bathurst Inlet fall under Wildlife Management Unit N. Species available for sport hunting excursions in and around Kugluktuk include caribou, ground squirrel, hare, muskox, polar bear, ptarmigan, and wolf (Nunavut Tourism 2013c). Numerous outfitting, lodges, and tour companies offer services in and around Kugluktuk (Nunavut Tourism 2013d). Hunting in the LSA communities in Nunavut in 2012 is summarized in Table 3.8-2.

Table 3.8-2 Summary of Hunting in Local Study Area Communities in Nunavut, 2012

Community	Species	Season
Kugluktuk, Bathurst Inlet, and Umingmaktok	Black bear	August 15 to June 30
	Grizzly bear	August 15 to October 31 and April 15 to May 31
	Barren-ground caribou	August 15 to November 30
	Moose	September 1 to January 31
	Muskox	August 15 to April 15
	Wolf	August 15 to May 31
	Wolverine	August 15 to October 31
	Hare and ground squirrels	July 1 to June 30
	Ptarmigan	September 1 to April 30
Kugluktuk only	Polar bear	October 1 to May 31
Bathurst Inlet/Umingmaktok only	Polar bear	August 1 to May 31

Source: Government of Nunavut – Environment (2012).

3.8.3.2 Fishing

Fish stocks in the NWT are harvested for subsistence, commercial, and recreational use (GNWT-ITI 2014b).

Sport fishing in the RSA includes Arctic Char, Arctic Grayling, Brook Trout, Bull Trout, Burbot, Ciscoes, Dolly Varden, Goldeye, Inconnu, Lake Trout, Northern Pike, Rainbow Trout, Suckers, and Walleye (GNWT-ENR 2013b). Sport fishing is very popular with residents of the NWT, and in 2010 to 2011, fishing tourists comprised over 25% of overall visitor spending (NTOS 2013).

In Yellowknife, fishing requires a fishing licence, which is mandatory for everyone between the ages of 16 and 65, unless fishing in an area that requires an additional validation. A valid fishing licence holder must accompany minors under 16 (Visit Yellowknife 2014a.). In addition, catch limits must be followed for each type and area (Visit Yellowknife 2014a). In Yellowknife, common species of fish include Arctic Grayling, Inconnu, Lake Trout, Northern Pike, Walleye, and Lake Whitefish. Easily accessible lakes and rivers around Yellowknife include the Yellowknife River bridge, Pontoon Lake, Prelude Lake, Walsh Lake, and Great Slave Lake (Yellowknife 2014a). In the winter, ice fishing is also a popular activity around Yellowknife, and tours and lodges provide this service (Visit Yellowknife 2014b.). Several sport fishing operators and lodges are situated in the Yellowknife area. They offer a range of services such as all-inclusive lodges, housekeeping lodges, day trips, fly fishing, ice fishing, and boat rentals (Spectacular NWT 2014b).

Most hunting and fishing lodges in the LSA are concentrated in the Barrenlands, with a few near Great Slave Lake and Yellowknife (Spectacular NWT 2014b). Peterson's Point Lake Lodge is located on Point Lake, which forms part of the Coppermine River system (Peterson's Point Lake 2014). Bathurst Arctic Services has a lodge located by the Coppermine River near Wekweètì (Spectacular NWT 2014b). Fishing and hunting are also available at the Aylmer Lake Lodge. In addition, True North Safari Ltd. has hunting and fishing lodges on MacKay Lake and Warburton Bay (Spectacular NWT 2014b). Enodah Wilderness Travel, True North Safari Ltd., and Arctic Safaris offer services for Barrenlands hunting of ducks, caribou, wolf, and wolverine (Spectacular NWT 2014c,d,e). Arctic Safaris also offers services in birding, wildlife viewing, and fishing, as well as camps on the Coppermine River system (Spectacular NWT 2014e). There is a lodge on Lac de Gras; however, it has not been active for several years. The location of current fishing and hunting operators in the LSA is shown in Map 2.2-3.

Yellowknife River, between Prosperous Lake and Bluefish Lake, is closed to sport fishing from September 1 to October 31 to conserve fish stocks (GNWT-ENR 2013b).

In Kugluktuk, fishing services are available through Canoe Arctic Inc., a company based in Fort Smith (Nunavut Tourism 2013e). The Bathurst Inlet Lodge in Bathurst Inlet also provides sport fishing services and is open from June to early August (Spectacular NWT 2014f).

The NWT commercial fishing sector is largely concentrated on Great Slave Lake (GNWT-ITI 2013f). Many freshwater species are found in the lake, with export-grade Whitefish the most dominant kind. The Industry Support Program delivered by the Department of Industry, Tourism and Investment (GNWT-ITI) assists the fishing industry with offsetting a portion of operations, as well as maintenance costs and capital replacement (GNWT-ITI 2013f). The representative body for the Great Slave Lake commercial fishing industry is the NWT Fishermen's Federation in Hay River.

3.8.3.3 *Outfitting*

Multiple lodges and outfitter companies operate in the RSA. Around Yellowknife, several lodges provide services in fishing, hiking, kayaking, and hunting (Visit Yellowknife 2014c). Most of these lodges are accessible only by charter flight from Yellowknife (Visit Yellowknife 2014c).

In Bathurst Inlet, the Bathurst Inlet Lodge is a full-service eco-tourism wilderness lodge that was once a Hudson's Bay Training Post and Oblate mission. The lodge offers services such as canoeing, rafting, wilderness camping, and sport fishing (Bathurst Inlet Lodge 2014b). The company's other camps and lodge facilities are located south of Bathurst Inlet in the Central Barrenlands. Although the lodge has a private airstrip, most flights from Yellowknife are by floatplane (Visit Nunavut 2014). The lodge can accommodate up to 25 people and is open from June to early August (Spectacular NWT 2014f).

3.8.4 Tourism and Recreation

A variety of tourist and recreational activities are available for visitors and residents of the LSA communities throughout the year.

Yellowknife has easy access to fishing, canoeing, hiking, camping, golfing, and nature viewing (GNWT-ITI 2013g). Many outfitters and lodges are also headquartered in Yellowknife. The 18-hole Yellowknife Golf Club is located off the highway to the north of Yellowknife (GNWT-ITI 2013g).

From June through September, open-water activities around Yellowknife include day trips and extended trips along the lakes, rivers, and rapids such as Reid Lake, Great Slave Lake, Tibbitt Lake, Cameron River, and Tartan Rapids (Visit Yellowknife 2014d).

Campgrounds in the Yellowknife region include Fred Henne, Prelude Lake, and Reid Lake (Visit Yellowknife 2014c). These campgrounds have powered and non-powered sites, and are ideal for water activities such as swimming, boating, tubing, water skiing, windsailing, and jet skiing. Hidden Lake Territorial Park is a 1.2 hectare undeveloped water park that allows backwater camping and has two-day use areas (Visit Yellowknife 2014c).

Recreational day-use areas in the Yellowknife area include Fred Henne Park Day Use and Beach, Yellowknife River Bridge, Prosperous Lake, Madeline Lake, Pontoon Lake, Prelude Lake, Powder Point, Cameron Falls, Cameron River Bridge, and Reid Lake (Visit Yellowknife 2014c).

Other recreational activities available in and around Yellowknife include dogsledding, cross-country skiing, kite-skiing, ice road driving, and cultural tours (Yellowknife Visitors Guide 2014). Back country camping is an option along the Ingraham Trail, outside of Yellowknife, or while on paddling expeditions around Yellowknife (Visit Yellowknife 2014c).

Trails that are suitable for walking, biking, hiking, and jogging around Yellowknife include Prospector's Trail, Frame Lake Trail, Niven Lake Trail, Range Lake Trail, Tin Can Hill, Ramsey Hill Trail, Big Hill Lake, Prelude Lake Trail, and Cameron Falls Trail (Visit Yellowknife 2014e).

Because it is near the north magnetic pole, the NWT is a prime location for viewing the aurora borealis (Spectacular NWT 2014g). Numerous operators offer tours for viewing the aurora borealis from outside Yellowknife's city limits with options such as heated, enclosed areas and dog team excursions (Spectacular NWT 2014h). These tours begin in the autumn and continue throughout the winter months (Visit Yellowknife 2014f).

Visitors to Yellowknife can also experience the city's cultural heritage. Cultural and heritage centres such as the Northern Frontier Visitors Centre, the Prince of Wales Northern Heritage Centre, and the Northern Arts and Cultural Centre display collections and exhibitions that tell stories about the land, people, and history of the NWT (Visit Yellowknife 2014g). Throughout the year, Yellowknife has music festivals such as the Yellowknife Northern Performers' Festival in January and the Folk on the Rocks Festival in July (Yellowknife Visitors Guide 2014).

Behchokò is the location of an old Dene hunting spot and was the site of two early trading posts. The North Arm day use area is located near Behchokò on Highway 3 (GNWT-ITI 2013g). Fort Resolution has walking tours of the town and boat trips to the original settlement (GNWT-ITI 2013gf). Little Buffalo River Crossing Territorial Park is located outside of Fort Resolution on Highway 6, and is a scenic base for fishing, boating, and picnicking (GNWT-ITI 2013g).

Recreational activities available in Kugluktuk include bird watching, camping/hiking, canoeing/kayaking, fishing, and wildlife viewing (Nunavut Tourism 2013a). While not located in Kugluktuk, numerous service providers operate guided tours and recreational activities in and around Kugluktuk. In Nunavut, the Wilderness Adventure Company offers services near the Ekati Mine, and offers guided canoe trips down the Coppermine River in July and August (Black Feather 2014).

4 REFERENCES

- AANDC (Aboriginal Affairs and Northern Development Canada). 2001. Salt River First Nation Treaty Settlement Agreement. Available at:
http://www.daaif.gov.nt.ca/_live/documents/content/Salt_River_Treaty_Agreement.pdf.
Accessed: August 15, 2014.
- AANDC. 2006. Akaitcho Process Negotiations. Available at: <http://www.aadnc-aandc.gc.ca/eng/1100100025959/1100100025960>. Accessed: March 27, 2014.
- AANDC. 2007. Akaitcho Process. Available at: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-NWT/STAGING/texte-text/ntr_pubs_pfap_1331051508842_eng.pdf. Accessed: February 2014.
- AANDC. 2008. Inuvialuit Self-Government Negotiations Process and Schedule Agreement. Available at:
<http://www.aadnc-aandc.gc.ca/eng/1100100025055/1100100025060>. Accessed: March 27, 2014.
- AANDC. 2014a. NWT Devolution. Available at: <http://www.aadnc-aandc.gc.ca/eng/1352471406817/1352471492553>. Accessed: March 27, 2014.
- AANDC. 2014b. Negotiation Tables. Available at: <http://www.aadnc-aandc.gc.ca/eng/1346782327802/1346782485058>. Accessed: August 2014.
- Aarluk Consulting. 2011. Vol.2 Consultation Report: Infrastructure for a Sustainable Kugluktuk. Available at:
[http://toolkit.buildingnunavut.com/ICSP/Kugluktuk/Kugluktuk%20ICISP%20Volume%202%20Final%20\(2011-07-20\).pdf](http://toolkit.buildingnunavut.com/ICSP/Kugluktuk/Kugluktuk%20ICISP%20Volume%202%20Final%20(2011-07-20).pdf). Accessed: March 2014.
- Access to Travel. 2013. Transportation Between Canadian Cities. Available at:
<http://www.accesstotravel.gc.ca/7.aspx?lang=en>. Accessed: February 2014.
- Akaitcho Interim Measures Agreement Implementation Office. 2001. Interim Measures Agreement. Available at:
<http://www.akaitchoima.com/pdf/Akaitcho%20Interim%20Measures%20Agreement.pdf>.
Accessed: February 2014.
- Akaitcho Treaty 8 Tribal Corporation. 2014. Akaitcho Tli icho Boundary Agreement. Available at: http://www.akaitcho.info/the_akaitcho_treaty_8_tribal_corporation_021.htm.
Accessed: June 20, 2014.
- AMS (Advanced Medical Solutions). 2012. 2012. Medevac Services in the NWT. Available at: <http://www.advancedmedic.com/default.asp?mn=1.46.50>. Accessed: March 2014.
- Arychuk C. 2014a. Human Resources Administrator. Dominion Diamond Ekati Corp. Email. March 31, 2014.
- Arychuk C. 2014b. Human Resources Administrator. Dominion Diamond Ekati Corp. Email. February 26, 2014.

- Aurora College. 2014a. Campus. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/Campus.aspx. Accessed: February 2014.
- Aurora College. 2014b. Programs by Location. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/ProgramsByLocation.aspx#CLC.
Accessed: February 2014.
- Aurora College. 2014c. Community Learning Centres. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/CampusCLC.aspx.
Accessed: February 2014.
- Aurora College. 2014d. Programs by Credentials. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/ProgramsByCredentialType.aspx.
Accessed: February 2014.
- Aurora College. 2014e. Programs by Department. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/ProgramsByDepartment.aspx.
Accessed: February 2014.
- Aurora College. 2014f. Underground Miner Training Program. Available at:
http://www.auroracollege.nt.ca/_live/pages/wpPages/ProgramInfoDisplay.aspx?id=102&tp=PRG.
Accessed: February 2014.
- Bathurst Inlet Lodge. 2014a. Our Facilities. Available at: <http://bathurstarctic.com/lodge/our-facilities/>.
Accessed: February 2014.
- Bathurst Inlet Lodge. 2014b. Bathurst Inlet Lodge. Available at: <http://bathurstarctic.com/lodge>.
Accessed: February 2014.
- Beaulieu R. 2014. Aboriginal Affairs Advisor. Dominion Diamond Ekati Corp. E-mails between
January 13, 2014 and January 17, 2014.
- Bennet J, Rowley SDM. 2004. Uqalurait: An Oral History of Nunavut. McGill-Queens' University Press,
Montreal, PQ, Canada.
- BHP (Broken Hill Proprietary Company). 1997. Ekati Diamond Mine: 1996 Year in Review.
- BHP. 1998. Ekati Diamond Mine: 1997 Year in Review.
- BHP. 1999. Ekati Diamond Mine: 1998 Year in Review.
- BHP. 2000. Ekati Diamond Mine: 1999 Year in Review.
- BHP Billiton (BHP Billiton Canada Inc. including subsidiary BHP Billiton Diamonds Inc.). 2001.
Ekati Diamond Mine: 2000 Year in Review.
- BHP Billiton. 2002. Ekati Diamond Mine: 2001 Year in Review.
- BHP Billiton. 2003. Ekati Diamond Mine: 2002 Year in Review.

- BHP Billiton. 2004. Ekati Diamond Mine: 2003 Year in Review.
- BHP Billiton. 2005. Ekati Diamond Mine: 2004 Year in Review.
- BHP Billiton. 2006. Ekati Diamond Mine: 2005 Year in Review.
- BHP Billiton. 2007. Ekati Diamond Mine: 2006 Year in Review.
- BHP Billiton. 2008. Ekati Diamond Mine: 2007 Year in Review.
- BHP Billiton. 2009. Ekati Diamond Mine: 2008 Year in Review.
- BHP Billiton. 2010. Ekati Diamond Mine: 2009 Year in Review.
- BHP Billiton. 2011. Ekati Diamond Mine: 2010 Year in Review.
- BHP Billiton. 2012. Ekati Diamond Mine: 2011 Year in Review.
- Black Feather. 2014. Coppermine River. Available at:
http://www.blackfeather.com/canoe/canoe_coppermine.htm. Accessed: March 2014.
- Canadian North. 2014. Canadian North Schedule 2014. Available at:
<http://www.canadiannorth.com/sites/default/files/u256/canadian-north-schedule-2014-02-03.pdf>.
Accessed: February 2014.
- Canadian Zinc. 2012. Prairie Creek Property, Northwest Territories, Canada. Technical Report prepared by AMC Mining Consultants (Canada) Ltd. Available at:
http://www.canadianzinc.com/images/photos/Prairie_Creek/Highlights/712017%20Canadian%20Zinc%20Prairie%20Creek%20NI%2043-101%209%20Aug%202012.pdf. Accessed: June 2014.
- CAPP (Canadian Association of Petroleum Producers). 2013. Statistical Handbook for Canada's Upstream Petroleum Industry. Available at:
<http://www.capp.ca/GetDoc.aspx?DocId=219433&DT=NTV>. Accessed: December 2013.
- CBC (Canadian Broadcast Corporation). 2012a. Crime rates in Canada still higher than national average: N.W.T. and Nunavut rates about 4 times higher than rest of Canada. Published: July 24, 2012. Available at: <http://www.cbc.ca/news/canada/north/crime-rates-in-north-still-higher-than-in-rest-of-canada-1.1221263>. Accessed: November 2013.
- CBC. 2012b. Outfitters say caribou hunt ban put them out of business. Available at:
<http://www.cbc.ca/news/canada/north/outfitters-say-caribou-hunt-ban-put-them-out-of-business-1.1187445>. Accessed: February 2014.
- CBC. 2013a. GNWT unveils ambitious 3-year energy plan. Published 17 December 2013. Available at:
<http://www.cbc.ca/news/canada/north/gnwt-unveils-ambitious-3-year-energy-plan-1.2466341>.
Accessed: December 18, 2013.

- CBC. 2013b. Devolution bill tabled with attached regulatory changes: Premier welcomes introduction of 'much needed' bill in Ottawa. Published 9 December 2013. Available at: <http://norj.ca/2013/12/devolution-bill-tabled-with-attached-regulatory-changes/>
Accessed: December 13, 2013.
- Childcare Resource and Research Unit. 2008. Northwest Territories: Early Childhood Education and Care in Canada. Toronto, ON. Available at: <http://www.childcarecanada.org/publications/ecec-canada/09/11/early-childhood-education-and-care-canada-2008>. Accessed: March 2014.
- Childcare Resource and Research Unit. 2013. Early Childhood Education and Care in Canada 2012. Available at: <http://www.childcarecanada.org/publications/ecec-canada/13/08/early-childhood-education-and-care-canada-2012>. Accessed: March 2014.
- CMHC (Canada Mortgage and Housing Corporation). 2010a. Rental Market Report – Yellowknife Highlights. Spring, 2010.
- CMHC. 2010b. 2009 Northern Housing Report.
- CMHC. 2013a. Rental Market Report - Yellowknife. Available at: http://www.cmhc-schl.gc.ca/odpub/esub/64523/64523_2013_B02.pdf?fr=1396390911123. Accessed: March 2014.
- CMHC. 2013b. 2012 Northern Housing Report. Available at: http://www.cmhc-schl.gc.ca/odpub/esub/65446/65446_2013_A01.pdf?fr=1377544582229. Accessed: April 1, 2014.
- Conference Board of Canada. 2013. Territorial Outlook: Winter 2013. Available at: http://nunavutsemc.com/sites/default/files/13-248_TerritorialOutlook_Winter13_0.pdf. Accessed: December 2013.
- DAAIR (Department of Aboriginal Affairs and Intergovernmental Relations). 2014a. Gwich'in Self-Government Agreement-in-Principle Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/Gwichin.aspx. Accessed: March 27, 2014.
- DAAIR. 2014b. Tulita Self-Government Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/Tulita.aspx. Accessed: March 27, 2014.
- DAAIR. 2014c. Norman Wells Land Corporation Self-Government Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/NormanWells.aspx. Accessed: March 27, 2014.
- DAAIR. 2014d. Colville Lake Self-Government Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/ColvilleLake.aspx. Accessed: March 27, 2014.
- DAAIR. 2014e. Fort Good Hope Self-Government Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/Fort_Good_Hope.aspx. Accessed: March 27, 2014.
- DAAIR. 2014f. Acho Dene Koe First Nations Land, resources and Self-Government Agreement-in-Principle Negotiations. Available at: http://www.daair.gov.nt.ca/_live/pages/wpPages/AchoDeneKoe.aspx. Accessed: March 27, 2014.

- DAAIR. 2014g. Dehcho First Nations Process. Available at:
http://www.daaair.gov.nt.ca/_live/pages/wpPages/Dehcho.aspx. Accessed: March 27, 2014.
- Dalhousie University. 2013. Headlines. Department of Psychiatry. Available at:
<http://www.medicine.dal.ca/content/dam/dalhousie/pdf/faculty/medicine/departments/departmentsites/psychiatry/HEADLINES%20January%202013.pdf>. Accessed: March 2014.
- Dominion Diamond (Dominion Diamond Ekati Corporation). 2013a. Ekati Diamond Mine 2012 Year in Review. Available at: http://www.ddcorp.ca/docs/default-source/default-document-library/ddc_5231_ekati_year_in_review_2012_pr3.pdf?sfvrsn=2}. Accessed: February 2014.
- Dominion Diamond. 2013b. Ekati Diamond Mine. NI 43-101 Technical Report. Available at:
<http://ddcorp.ca/docs/default-source/default-document-library/ekati-43-101-may-24-2013.pdf?sfvrsn=2>. Accessed: January 2014.
- Dominion Diamond. 2014a. Procurement data update. Email communication between R. Bargery (Manager, Permitting, Dominion Diamond) and J. O'Brien (Socio-Economist, Golder) on August 4, 2014.
- Dominion Diamond. 2014b. Procurement data. Email communication between T. Schindel (Procurement Team Leader, Dominion Diamond) and J. O'Brien (Socio-Economist, Golder) on March 20, 2014.
- De Beers (De Beers Canada Inc.). 2008. 2007 Snap Lake Mine Socio-Economic Report.
- De Beers. 2009. 2008 Snap Lake Mine Socio-Economic Report. Available at:
<http://www.canada.debeersgroup.com/pdf/2008-snap-lake-socio-economic-annual-report.pdf>. Accessed: January 2014.
- De Beers. 2010. 2009 Snap Lake Mine Socio-Economic Report. Available at:
https://www.canada.debeersgroup.com/pdf/2009_Snap_Lake_Mine_SEA_Report-WEB.pdf. Accessed: February 2014.
- De Beers. 2011. 2010 Snap Lake Mine Socio-Economic Report. Available at:
http://www.debeerscanada.com/files_3/pdf_documents/2010-Snap-Lake-Socio-Economic-Annual-Report.pdf. Accessed: February 2014.
- De Beers. 2012. 2011 Snap Lake Mine Socio-Economic Report. Available at:
https://www.canada.debeersgroup.com/pdf/Snap%20Lake%20Mine%20Socio%20Economic%20Report%202011_PDF.pdf. Accessed: January 2014.
- De Beers. 2013a. 2012 Snap Lake Mine Socio-Economic Report. Available at:
<https://www.canada.debeersgroup.com/pdf/Snap%20Lake%20Mine%20Socio-Economic%20Report%202012.pdf>. Accessed: January 2014.
- DeBeers. 2013b. Gahcho Kué. Available at: <https://www.canada.debeersgroup.com/Exploration/Gahcho-Kue/>. Accessed: December 2013.

- Department of Finance Canada. 2013. Transfer Tables. Department of Finance Website.
Available at: <http://www.fin.gc.ca/fedprov/mtp-eng.asp>. Accessed: March 26, 2014.
- Discover Air. 2011. Aqsaqniq Airways, Medic North Nunavut Sign \$30 Million Kitikmeot Medevac Contract. Available at: <http://www.discoveryair.com/page?a=683&lang=en-CA>.
Accessed: March 2014.
- Early Childhood Development. 2012. Public Investments in Early Childhood Education and Care in Canada 2010. Available at: <http://www.ecd-elcc.ca/eng/ecd/ececc/page15.shtml>. Accessed: February 2014.
- Environment Canada. 2013a. Nunavut. Available at: <http://www.ec.gc.ca/ap-pa/default.asp?lang=En&n=E996DC2B-1>. Accessed: February 2014.
- Environment Canada. 2013b. Northwest Territories. Available at:
<https://www.ec.gc.ca/ap-pa/default.asp?lang=En&n=D1E052D8-1>. Accessed: February 2014.
- First Air. 2014. About First Air. Available at: <https://firstair.ca/about/>. Accessed: February 2014.
- GNWT (Government of Northwest Territories). 2011. Official opening of Yellowknife Airport Combined Services Building. Available at: <http://news.exec.gov.nt.ca/official-opening-of-yellowknife-airport-combined-services-building/>. Accessed: February 2014.
- GNWT. 2013a. Ground Highway and Rescue Services. Available at:
http://www.assembly.gov.nt.ca/sites/default/files/td_117-174.pdf. Accessed: March 2014.
- GNWT. 2013b. NWT Medevac Patients to See Improved Services with Opening of the Air Ambulance Facility at Edmonton International Airport. Available at: <http://news.exec.gov.nt.ca/nwt-medevac-patients-to-see-improved-services-with-opening-of-the-air-ambulance-facility-at-edmonton-international-airport/>. Accessed: March 2014.
- GNWT. 2013c. Anti-Poverty Strategic Framework. Available at:
http://www.gov.nt.ca/research/publications/pdfs/Anti-poverty_Strategic_Framework.pdf.
Accessed: March 2014.
- GNWT. 2014. *New Participants Sign NWT Devolution Agreement*. Available at:
<http://news.exec.gov.nt.ca/new-participants-sign-nwt-devolution-agreement/>. Accessed: August 13, 2014.
- GNWTBS (Government of Northwest Territories – Bureau of Statistics). 2004. 2004 NWT Community Survey: Community Housing Needs Overall Results Report No. 1. Yellowknife, NWT, Canada.
- GNWTBS. 2010. 2009 NWT Community Survey: Housing Needs Report. Yellowknife, NWT, Canada.
- GNWTBS. 2012a. Interprovincial and International Trade (Totals) 2007-2011. Available at:
http://www.statsnwt.ca/economy/exports_imports/. Accessed: December 2013.
- GNWTBS. 2012b. General Health Indicators, Aged 15 and over: Northwest Territories. 2012.
Available at: <http://www.statsnwt.ca/health/health-conditions/>. Accessed: November 2013.

- GNWTBS. 2013a. Vital Statistics: Births and Deaths. Available at: <http://www.statsnwt.ca/population/vital-statistics/>. Accessed: February 2014.
- GNWTBS. 2013b. NWT Community Data. Available at: <http://www.statsnwt.ca/community-data/#>. Accessed: December 2013.
- GNWTBS. 2013c. GDP For Canada, Provinces, and Territories, 2007-2012. Available at: <http://www.statsnwt.ca/economy/gdp/>. Accessed: December 2013.
- GNWTBS. 2013d. NWT GDP by Industry, 2007 to 2012. Available at: <http://www.statsnwt.ca/economy/gdp/>. Accessed: December 2013.
- GNWTBS. 2013e. Living Cost Differentials. Available at: http://www.statsnwt.ca/prices-expenditures/living_cost_differentials/. Accessed: November 2013.
- GNWTBS. 2013f. Consumer Price Index. Available at: <http://www.statsnwt.ca/indicators/cpi/>. Accessed: December 2013.
- GNWTBS. 2013g. NWT Capital Expenditures for Canada, Province & Territories, 1999-2013. Available at: <http://www.statsnwt.ca/economy/investment/>. Accessed: December 2013.
- GNWTBS. 2013h. NWT Socio-Economic Scan. Available at: http://www.statsnwt.ca/publications/socio-economic_scan/. Accessed: December 2013.
- GNWTBS. 2013i. NWT Annual Mineral, Oil and Gas Production, 1999-2012. Available at: <http://www.statsnwt.ca/economy/minerals/>. Accessed: December 11, 2013.
- GNWTBS. 2013j. Summary of NWT Community Statistics. Available at: http://www.statsnwt.ca/publications/summary_comm_stats/Summary%20of%20NWT%20Statistics%202013.pdf. Accessed: December 2013.
- GNWTBS. 2013k. Public Sector Statistics. Available at: <http://www.statsnwt.ca/economy/public-sector/>. Accessed: December 2013.
- GNWTBS. 2013l. Data portal. Available at: <http://www.statsnwt.ca/DataPortal/>. Accessed: March 2014.
- GNWTBS. 2013m. Number of Adults Charged by Offence, Community, Type and Gender – 1998 – 2012. Available at: <http://www.statsnwt.ca/justice/police-reported-crime/index.html>. Accessed: November 2013.
- GNWTBS. 2013n. Statistics Quarterly Volume 35. No. 3. Available at: <http://www.statsnwt.ca/publications/statistics-quarterly/sqsep2013.pdf>. Accessed: March 2014.
- GNWTBS. 2014a. Population Estimates. Available at: <http://www.statsnwt.ca/population/population-estimates>. Accessed: March 2014.
- GNWTBS. 2014b. Public and Private Expenditures. Available at: http://www.statsnwt.ca/economy/investment/ppi_2014.pdf. Accessed: March 2014.

- GNWT-ECE (Government of Northwest Territories – Department of Education, Culture and Employment). 2005. Building on our Success: Strategic Plan 2005-2015. Available at: <http://www.ece.gov.nt.ca/files/Building%20on%20Our%20Success%20ECE%20Strategic%20Plan%202005-2015.pdf>. Accessed: March 2014.
- GNWT-ECE. 2007. Strategy for Teacher Education in the NWT 2007-2015. Available at: <http://www.ece.gov.nt.ca/files/ADV%20ED%20APSE%20Strategy%20for%20Teacher%20Education%20in%20the%20NWT%202007-2015.pdf>. Accessed: February 2014.
- GNWT-ECE. 2011. Aboriginal Student Achievement Education Plan. Available at: http://www.ece.gov.nt.ca/files/Early-Childhood/asa/ASA%20Education_Plan_Final%20Document.pdf. Accessed: February 2014.
- GNWT-ECE. 2012. Integrated Kindergarten Curriculum: A Holistic Approach to Children's Early Learning. Available at: <http://www.ece.gov.nt.ca/early-childhood-and-school-services/school-services/early-learning-kindergarten>. Accessed: March 2014.
- GNWT-ECE. 2013a. Early Childhood Development in the Northwest Territories. Available at: http://www.ece.gov.nt.ca/files/publications/ecd_framework_-_web_sept_2013.pdf. Accessed: February 2014.
- GNWT-ECE. 2013b. Understanding the Child Day Care Regulations: A Handbook for Early Childhood Programs. Available at: <http://www.ece.gov.nt.ca/early-childhood-and-school-services/early-childhood/early-childhood-program>. Accessed: March 2014.
- GNWT-ECE. 2013c. NWT School Handbook. Available at: <http://www.ece.gov.nt.ca/early-childhood-and-school-services/school-services/curriculum-k-12/nwt-school-handbook>. Accessed: March 2014.
- GNWT-ECE. 2013d. Adult Literacy and Basic Education. Available at: <http://www.ece.gov.nt.ca/advanced-education/adult-and-postsecondary-education/adult-literacy-and-basic-education>. Accessed: February 2014.
- GNWT-ECE. 2014a. Early Childhood and School Services. Available at: <http://www.ece.gov.nt.ca/early-childhood-and-school-services>. Accessed: March 2014.
- GNWT-ECE. 2014b. Information for Prospective Teachers and Teaching Positions in the NWT. <http://www.ece.gov.nt.ca/early-childhood-and-school-services/support-educators-and-administration/information-prospective>. Accessed: March 2014.
- GNWT-ECE. 2014c. Early Childhood. Available at: <http://www.ece.gov.nt.ca/early-childhood-and-school-services>. Accessed: March 2014.
- GNWT-ECE. 2014d. Student Financial Assistance. Available at: <http://www.nwtsfa.gov.nt.ca>. Accessed: February 2014.

- GNWT-ENR (Government of Northwest Territories – Department of Environment and Natural Resources). 2011. A Barren-ground Caribou Management Strategy for the NWT 2011-2015. Available at: http://www.enr.gov.nt.ca/_live/documents/content/2011-2015_Barren-ground_Caribou_Management_Strategy.pdf. Accessed: February 2014.
- GNWT-ENR. 2012a. Resident Hunter Surveys 1997-2009 Update and Review. Available at: http://www.enr.gov.nt.ca/_live/documents/content/218_manuscript.pdf. Accessed: December 2013.
- GNWT-ENR. 2012b. Community Wildlife Protection Plans. Available at: <http://www.nwtfire.com/cms/cwpp>. Accessed: March 2014.
- GNWT-ENR. 2013a. State of the Environment Report: Use of Renewable Resources. Available at: http://www.enr.gov.nt.ca/_live/pages/wpPages/soe_conservation_sustainable_use.aspx#2. Accessed: December 2013.
- GNWT-ENR. 2013b. Summary of Hunting Regulations 2013-2014 . Available at: http://www.enr.gov.nt.ca/_live/documents/content/2013-2014_Hunting_Guide.pdf. Accessed: December 2013.
- GNWT-HSS (Government of Northwest Territories – Department of Health and Social Services). 2009. Directions for Wellness: A Summary of First Nations and Inuit Health Branch Programs in the Northwest Territories. Available at: <http://pubs.aina.ucalgary.ca/health/66653.pdf>. Accessed: January 2014.
- GNWT-HSS. 2010a. NWT Addictions Report: Prevalence of alcohol, illicit drug, tobacco use and gambling in the Northwest Territories. Available at: http://www.hss.gov.nt.ca/sites/default/files/nwt_addictions_report.pdf. Accessed: February 2014.
- GNWT-HSS. 2010b. User's Guide to Telehealth in the NWT. Available at: http://www.hss.gov.nt.ca/sites/default/files/guide_to_telehealth_in_the_nwt.pdf. Accessed: February 2014.
- GNWT-HSS. 2011a. Northwest Territories Health Status Report. Available at: http://www.hss.gov.nt.ca/sites/default/files/nwt_health_status_report.pdf. Accessed: November 2013.
- GNWT-HSS. 2011b. Health Social Services Delivery. Available at: <http://www.practicenorth.ca/index.php?page=nwt-health-social-services-delivery>. Accessed: March 2014.
- GNWT-HSS. 2011c. *Stanton Territorial Health Authority*. Government of Northwest Territories. Available at: <http://www.practicenorth.ca/index.php?page=stanton-territorial-health-authority>. Accessed: March 2014.
- GNWT-HSS. 2011d. Tłıchq Community Services Agency. Government of Northwest Territories: Health and Social Services Authority. Available at: <http://www.practicenorth.ca/index.php?page=Tłıchq-community-services-agency>. Accessed: March 2014.

- GNWT-HSS. 2011e. EMT/Paramedic. Available at: <http://www.practicenorth.ca/index.php?page=emt-paramedic>. Accessed: March 2014.
- GNWT-HSS. 2011f. Advanced Nurse Mentorship Program. Available at: <http://www.practicenorth.ca/index.php?page=advanced-nurse-mentorship-program>. Accessed: March 2014.
- GNWT-HSS. 2011g. Community Health Nurse Development Program. Available at: <http://www.practicenorth.ca/index.php?page=community-health-nurse-development-program>. Accessed: March 2014.
- GNWT-HSS. 2013a. Making the Case for Change: Advancing the NWT Chronic Disease Management Strategy. Available at: <http://www.cfhi-fcass.ca/sf-docs/default-source/reports/NWT-Report-E.pdf?sfvrsn=0>. Accessed: February 2014.
- GNWT-HSS. 2013b. NWT Hospitalization Report. Available at: <http://www.hss.gov.nt.ca/sites/default/files/nwt-hospitalization-report.pdf>. Accessed: February 2014.
- GNWT-HSS. 2014a. Healthcare Authorities. Available at: <http://www.hss.gov.nt.ca/hss-authorities>. Accessed: February 2014.
- GNWT-HSS. 2014b. NWT Healthcare Plan. Available at: <http://www.hss.gov.nt.ca/health/nwt-health-care-plan>. Accessed: February 2014.
- GNWT-HSS. 2014c. Medical Travel. Available at: <http://www.hss.gov.nt.ca/health/nwt-health-care-plan/medical-travel>. Accessed: February 2014.
- GNWT-HSS. 2014d. Extended Health Benefits: Seniors Program. Available at: <http://www.hss.gov.nt.ca/health/nwt-health-care-plan/extended-health-benefits-seniors-program>. Accessed: February 2014.
- GNWT-HSS. 2014e. Extended Health Benefits: Specified Disease Conditions. Available at: <http://www.hss.gov.nt.ca/health/nwt-health-care-plan/extended-health-benefits-specified-disease-conditions>. Accessed: February 2014.
- GNWT-HSS. 2014f. Métis Health Benefits. Available at: <http://www.hss.gov.nt.ca/health/nwt-health-care-plan/metis-health-benefits>. Accessed: February 2014.
- GNWT-HSS. 2014g. Measuring Success and Focusing on Results. Available at: <http://www.hss.gov.nt.ca/sites/default/files/measuring-success-and-focusing-on-results.pdf>. Accessed: February 2014.
- GNWT-HSS. 2014h. Services Available. Available at: <http://www.yhssa.org/social-services/counselling/services-available>. Accessed: March 2014.

- GNWT-HSS. 2014i. Health Centre, Behchokò. Government of Northwest Territories: Health and Social Services. Available at: <http://www.hss.gov.nt.ca/content/health-centre-behchoko>. Accessed: March 2014.
- GNWT-HSS. 2014j. Jimmy Erasmus Seniors Home. Government of Northwest Territories: Health and Social Services. Available at: <http://www.hss.gov.nt.ca/health/long-term-care/long-term-care-facilities/jimmy-erasmus-seniors-home-behchoko>. Accessed: March 2014.
- GNWT-HSS. 2014k. Lutsel K'e. Yellowknife Health and Social Services. Available at: <http://www.yhssa.org/health/clinics-and-health-centres/lutsel-ke>. Accessed: March 2014.
- GNWT-HSS. 2014l. Fort Resolution. Yellowknife Health and Social Services. Available at: <http://www.hss.gov.nt.ca/health/long-term-care/long-term-care-facilities/jimmy-erasmus-seniors-home-behchoko>. Accessed: March 2014.
- GNWT-HSS. 2014m. Hospital Services. . Available at: http://www.hss.gov.nt.ca/health/nwt-health-care-plan/hospital-services?qt-news_advisories_right_nav=1. Accessed: March 2014.
- GNWT-HSS. 2014n. Discussion Paper – Ground Ambulance Act . Available at: http://www.hss.gov.nt.ca/sites/default/files/ground_ambulance_discussion_paper.pdf. Accessed: March 2014.
- GNWT-HSS. 2014o. Pathway to Wellness . Available at: <http://www.hss.gov.nt.ca/sites/default/files/pathway-to-wellness.pdf>. Accessed: March 2014.
- GNWT-HSS. 2014p. Community Wellness . Available at: <http://www.hss.gov.nt.ca/social-services/community-wellness>. Accessed: March 2014.
- GNWT-HSS. 2014q. Help Directory . Available at: <http://www.hss.gov.nt.ca/help-directory-index>. Accessed: March 2014.
- GNWT-Human Resources. 2008. GNWT 2008 Public Service Report. Yellowknife, NWT, Canada.
- GNWT-Human Resources. 2013a. Progressive Experience Program. Available at: <http://www.hr.gov.nt.ca/human-resource-manual/0100-hiring-process/0121a-progressive-experience-program>. Accessed: March 2014.
- GNWT-Human Resources. 2013b. 2012 Public Service Annual Report. Available at: http://www.assembly.gov.nt.ca/sites/default/files/13-11-07td_14-175.pdf. Accessed: March 2014.
- GNWT-Human Resources. 2014a. Policy and Legislation. Available at: <http://www.hr.gov.nt.ca/policy-legislation>. Accessed: March 2014.
- GNWT-Human Resources. 2014b. Brilliant North. Available at: <http://www.hr.gov.nt.ca/about/2020-brilliant-north>. Accessed: March 2014.
- GNWT-Human Resources. 2014c. Graduate Internships. Available at: <http://careers.hr.gov.nt.ca/en/opportunities/grad-intern>. Accessed: March 2014.

- GNWT-ITI (Government of Northwest Territories – Industry, Tourism and Investment). 2011. Tourism 2015: New Directions for a Spectacular Future. Available at: www.iti.gov.nt.ca/publications/tourism-2015-new-directions-spectacular-future. Accessed: December 2013.
- GNWT-ITI. 2012a. Northwest Territories Economic Review 2011-12. Available at: <http://www.investnwt.com/sites/default/files/nwteconomicoutlookreport2011-12.pdf/>. Accessed: December 2013.
- GNWT-ITI. 2012b. Traditional Economy in the Northwest Territories. Available at: http://www.iti.gov.nt.ca/sites/default/files/TraditionalEconomyInTheNWT_WEB_20120405.pdf. Accessed: December 2013.
- GNWT-ITI. 2012c. Community and Diamonds: 2012 Annual Report. Available at: http://www.iti.gov.nt.ca/sites/default/files/2012_communities_and_diamonds.pdf. Accessed: February 2014.
- GNWT-ITI. 2013a. Northwest Territories Mineral Development Strategy. Available at: http://www.iti.gov.nt.ca/sites/default/files/iti_mineral_development_strategy_2013_2014_wr.pdf. Accessed: January 2014.
- GNWT-ITI. 2013b. Key Projects. Available at: <http://www.iti.gov.nt.ca/key-projects/65>. Accessed: December 2013.
- GNWT-ITI. 2013c. Offshore Profile. Available at: <http://www.iti.gov.nt.ca/content/offshore-profile>. Accessed: December 2013.
- GNWT-ITI. 2013d. Sahtu Profile. Available at: <http://www.iti.gov.nt.ca/content/sahtu-profile>. Accessed: December 2013.
- GNWT-ITI. 2013e. Tourism Research Update. Available at: http://www.iti.gov.nt.ca/sites/default/files/13-14_q3-tourism_indicators.pdf. Accessed: June 2014.
- GNWT-ITI. 2013f. Commercial Fisheries Industry Support Program. Available at: <http://www.iti.gov.nt.ca/programs-services/commercial-fisheries-industry-support-program>. Accessed: December 2014.
- GNWT-ITI. 2013g. 2013 Road Guide. Available at: <http://www.nwtparks.ca/sites/all/themes/parks/images/2013RoadGuide-Web.pdf>. Accessed: February 2014.
- GNWT-ITI. 2014a. Programs and Services. Available at: <http://www.iti.gov.nt.ca/programs-services>. Accessed September 2014.
- GNWT-ITI. 2014b. Parks. Available at: <http://www.nwtparks.ca/>. Accessed: February 2014.
- GNWT-Justice. 2011. Corrections. Available at: <http://www.justice.gov.nt.ca/Corrections/Corrections.shtml>. Accessed: March 2014.

- GNWT-Justice. 2013. Custody Institutional Services. Available at:
http://www.justice.gov.nt.ca/facilities/Corrections_Institutions.shtml. Accessed: March 2014.
- GNWT-MACA (Government of Northwest Territories – Department of Municipal and Community Affairs). 2006. Review of Ground Ambulance and Highway Rescue Services in the NWT. Available at:
http://www.maca.gov.nt.ca/resources/P313_FINAL_Report_November%2014%2006.pdf.
Accessed: February 2014.
- GNWT-MACA. 2011. 2010 GNWT Report on Drinking Water. Available at:
<http://www.maca.gov.nt.ca/resources/GNWT-report-on-drinking-water-2010.pdf>.
Accessed: February 2014.
- GNWT-MACA. 2014a. Behchokò (Edzo). GNWT – MCA. Available at:
<http://www.maca.gov.nt.ca/?water=behchoko-edzo>. Accessed: March 2014.
- GNWT-MACA. 2014b. Behchokò (Rae). GNWT – MCA. Available at:
<http://www.maca.gov.nt.ca/?water=bechoko>. Accessed: March 2014.
- GNWT-MACA. 2014c. *Dettah*. GNWT_MCA. Available at: <http://www.maca.gov.nt.ca/?water=dettah>.
Accessed: March 2014.
- GNWT-MACA. 2014d. Fort Resolution. GNWT – MCA. Available at:
<http://www.maca.gov.nt.ca/?water=fort-resolution>. Accessed: March 2014.
- GNWT-MACA. 2014e. Gamètì. GNWT – MCA. Available at: <http://www.maca.gov.nt.ca/?water=gameti>.
Accessed: March 2014.
- GNWT-MACA. 2014f. Lutsel K'e. GNWT – MCA. Available at: <http://www.maca.gov.nt.ca/?water=lutsel-ke>. Accessed: March 2014.
- GNWT-MACA. 2014g. Whatì. GNWT – MCA. Available at: <http://www.maca.gov.nt.ca/?water=wha-ti>.
Accessed: March 2014.
- GNWT-MACA. 2014h. Wekweètì. GNWT – MCA. Available at:
<http://www.maca.gov.nt.ca/?water=wekweeti>. Accessed: March 2014.
- GNWT-MACA. 2014i GNWT-MCA. *Yellowknife*. Available at:
<http://www.maca.gov.nt.ca/?water=yellowknife>. Accessed: March 2014.
- GNWT-Transportation. 2009. Northwest Territories Highway Traffic Report, 2008. Yellowknife, NWT, Canada.
- GNWT-Transportation. 2011. On Track. Available at:
http://www.dot.gov.nt.ca/_live/documents/content/On%20Track%20document.pdf.
Accessed: February 2014.
- GNWT-Transportation. 2013a. Corridors for Canada III. Available at:
http://www.dot.gov.nt.ca/_live/documents/content/C%20for%20C3%2013-06-04%20FINAL.pdf.
Accessed: February 2014.

- GNWT-Transportation. 2013b. NWT Airport Information. Available at:
http://www.dot.gov.nt.ca/_live/documents/content/Airports%20Brochure%202013.pdf.
Accessed: February 2014.
- Google Earth. 2014. Project distances derived from <http://www.google.com/earth/>. Accessed: March 2014.
- Government of Canada Privy Council Office. 2010. Difference Between Canadian Province and Territories. Available at: <http://www.pco-bcp.gc.ca/aia/index.asp?lang=eng&page=provterr&sub=difference&doc=difference-eng.htm>.
Accessed: March 26, 2014.
- Government of Canada. 2009. Canada's Northern Strategy: Our North, Our Heritage, Our Future. Available at: <http://www.northernstrategy.gc.ca/cns/cns-eng.asp#chp4>.
Accessed: December 2013.
- Government of Canada. 2013a. Emergency Management Organizations. Available at:
<http://www.getprepared.gc.ca/cnt/rsrscs/mrgnc-mgmt-rgnztns-eng.aspx#nt>. Accessed: March 2014.
- Government of Canada. 2013b. Transportation Between Canadian Cities. Government of Canada. Available at: <http://www.accesstotravel.gc.ca/7.aspx?lang=en>. Accessed: March 2014.
- Government of Nunavut. 2013. Kugluktuk. Available at:
[http://www.gov.nu.ca/sites/default/files/files/Kugluktuk%20Profile%20new%20layout\(1\).pdf](http://www.gov.nu.ca/sites/default/files/files/Kugluktuk%20Profile%20new%20layout(1).pdf).
Accessed: February 2014.
- Government of Nunavut. 2014. Nunavut Healthcare Plan. Available at:
<http://www.gov.nu.ca/health/information/nunavut-health-care-plan>. Accessed: February 2014.
- Government of Nunavut – Department of Family Services. 2010. Family Violence Shelters. Available at:
<http://www.fs.gov.nu.ca/en/CFS%20Family%20Issues%20Family%20Violence%20Shelters.aspx>.
Accessed: February 2014.
- Government of Nunavut – Department of Health and Social Services. 2012. 2011/2012 – Annual Report on the Operation of the Medical Care Plan. Available at:
<http://assembly.nu.ca/library/GNedocs/2012/000851-e.pdf>. Accessed: February 2014.
- Government of Nunavut – Environment. 2008. Coppermine Heritage River. Available at:
http://env.gov.nu.ca/sites/default/files/ED_Coppermine_ENG.pdf. Accessed: February 2014.
- Government of Nunavut – Environment. 2012. Summary of the Nunavut Hunting Regulations 2012-2013. Available at: <http://env.gov.nu.ca/sites/default/files/2012nuhuntingguide.pdf>.
Accessed: February 2014.
- Health Canada. 2012. First Nations and Inuit Health. Available at: <http://www.hc-sc.gc.ca/fniah-spnia/famil/index-eng.php>. Accessed: February 2014.

- Health Canada. 2014. Non-insured Health Benefits for First Nations and Inuit. Available at: <http://www.hc-sc.gc.ca/fniah-spnia/nihb-ssna/index-eng.php>. Accessed: February 2014.
- Homeless Hub. 2011. Homelessness in Yellowknife: An Emerging Social Challenge. Available at: http://www.homelesshub.ca/sites/default/files/Falvo_Homelessness_Policy_Report_finalMAY25.pdf. Accessed: February 2014.
- Ice Wireless. 2013. Coverage Map. Available at: <https://www.icewireless.ca/about-us/#4>. Accessed: February 2014.
- Impact Economics. 2014. Baseline Economic Scenario for the Ekati Mine. Prepared by Impact Economics for Golder Associates Ltd.
- INAC (Indian and Northern Affairs Canada). 2007. NWT Plain Facts on Land and Self-Government: Negotiations about land, resources and self-government in the NWT. Available at: http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-NWT/STAGING/texte-text/ntr_pubs_pflr_1331055548925_eng.pdf. Accessed: March 25, 2014.
- Industry Canada. 2013. Trade Data Report. Available at: <https://www.ic.gc.ca/app/scr/tdst/tdo/crtr.html?naArea=P61¤cy=CDN&toFromCountry=CDN&searchType=BL&hSelectedCodes=%7c11%7c21%7c22%7c31-33&countryList=1&productType=NAICS&grouped=INDIVIDUAL&reportType=TB&timePeriod=5%7cComplete+Years&changeCriteria=true>. Accessed: December 2013.
- Kant S, Vertinsky I, Zheng B, Smith P. 2013. Social, cultural and land use determinants of the health and well-being of Aboriginal peoples of Canada: A path analysis. *J Public Health Pol* 34(3): 462 - 476. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730236/>.
- Kitikmeot Inuit Association. 2014. Kugluktuk. Available at: <http://kitia.ca/en/our-region/community-profiles/Kugluktuk>. Accessed: February 2014.
- Kitikmeot Regional Gathering Report. 2012. Implementing the Makimaniq Plan. Available at: http://makiliqta.ca/sites/default/files/kitikmeot_gathering_report_2.pdf. Accessed: February 2014.
- Kitikmeot School Operations. 2014. Kitikmeot School Operations. Available at: <http://kitikmeot.edu.nu.ca/>. Accessed: February 2014.
- Land of the Ancestors. 2013. LKDFN initials the draft Thaidene Nene Establishment Agreement with Parks Canada. Available at: <http://landoftheancestors.ca/newsroom/lkdfn-initials-the-thaidene-nene-establishment-agreement-with-parks-canada.html>. Accessed: February 2014.
- Library and Archives Canada. 2012. Métis Scrip – A foundation for a new beginning. Available at: <https://www.collectionscanada.gc.ca/metis-scrip/005005-2000-e.html>. Accessed: March 26, 2014.
- Lutsel K'e Dene School. 2014. Lutsel K'e Dene School. Available at: <https://sites.google.com/site/lutselkedeneschool/home>. Accessed: March 2014.

- MVRB (Mackenzie Valley Review Board). 2013. *Wek'eezhii Land and Water Board*. Available at: <http://www.mvlwb.ca/Boards/WLWB/Registry/Forms/FolderView.aspx>. Accessed: April 2014.
- MTS (Mine Training Society). 2013. Annual Report. Mine Training Society. Available at: http://minetraining.ca/sites/default/files/prospects_annual_report_2013.pdf. Accessed: March 2014.
- MTS. 2014. Mine Training: Programs. Mine Training Society. Available at: <http://minetraining.ca/programs>. Accessed: March 2014.
- National Health Expenditure Database. 2013. Health Expenditure in the Provinces and Territories. Available at: https://secure.cihi.ca/free_products/4.0_TotalHealthExpenditureProvTerrEN.pdf. Accessed: December 16, 2013.
- Natural Resources Canada. 2009. Overview of Trends in Canadian Mineral Exploration 2009. Available at: <https://www.nrcan.gc.ca/mining-materials/exploration/2009/8304>. Accessed: December 18, 2013.
- NBS (Nunavut Bureau of Statistics). 2011. Nunavut Housing Needs Survey. Available at: <http://www.stats.gov.nu.ca/Publications/Housing/Fact%20Sheets/NHNS%20Fact%20Sheets%20-%20Nunavut%2c%20Kitikmeot%20and%20Kitikmeot%20Communities.pdf>. Accessed: April 1, 2014.
- NBS. 2013. Education. Available at: <http://www.stats.gov.nu.ca/en/Social%20education.aspx>. Accessed: February 2014.
- New Teachers NWT. 2014. What is Teacher Induction? Available at: http://www.newteachersnwt.ca/what_is_teacher_induction.html. Accessed: February 2014.
- NHC (Nunavut Housing Corporation). 2013. NHC's New Housing Allocation System. Background. Available at: [http://www.nunavuthousing.ca/apps/UPLOADS/fck/file/\\$100%20million%20-%20Backgrounder%20-%20English.pdf](http://www.nunavuthousing.ca/apps/UPLOADS/fck/file/$100%20million%20-%20Backgrounder%20-%20English.pdf). Accessed: April 1, 2014.
- Northern Journal. 2013a. Yellowknife's Solid Waste Facility on Brink of Change. Available at: <http://norj.ca/2013/04/yellowknifes-solid-waste-facility-on-brink-of-change/>. Accessed: February 2014.
- Northern Journal. 2013b. NWT Seeks Higher Borrowing Limit for Legacy Hydro Intertie. Available at: <http://norj.ca/2013/10/nwt-seeks-higher-borrowing-limit-for-legacy-hydro-intertie/>. Accessed: February 2014.
- Northern Journal. 2014. Internet Service Competition Heats up in Yellowknife. Available at: <http://norj.ca/2014/03/internet-service-competition-heats-up-in-yellowknife/>. Accessed: March 2014.
- Northern News Service. 2009. New Laws May Stress Overcrowded Jails. Available at: http://www.nnsi.com/frames/newspapers/2009-09/sep7_09new.html. Accessed: February 2014.

- Northern News Service. 2011. New Fire Department.
Available at: http://www.nnsi.com/frames/newspapers/2011-11/nov7_11fd.html.
Accessed: March 2014.
- Northern News Service. 2012a. NWT Continues to Fight Against Suicide.
Available at: http://www.nnsi.com/frames/newspapers/2012-09/sept17_12sui2.html.
Accessed: December 19, 2013.
- Northern News Service. 2012b. In Search of More Firefighters.
Available at: http://www.nnsi.com/frames/newspapers/2012-08/aug6_12fre.html.
Accessed: March 2014.
- Northern News Service. 2013. Water Treatment Plant Debate.
Available at: http://www.nnsi.com/frames/newspapers/2013-08/aug30_13wat.html.
Accessed: March 2014.
- Northern News Service. 2014. Community Newspapers. Available at:
<http://www.nnsi.com/publish/publish.html>. Accessed: March 2014.
- Northwest Territories and Nunavut Chamber of Mines. 2013. NWT Government Outlines Vision for Expansion of Northern Power Transmission Grid. Available at:
http://www.miningnorth.com/_rsc/site-content/news/chamber-news-releases/NWT_Power_System_Vision_NewsRelease.pdf. Accessed: February 2014.
- Northwest Territories Montessori Society. 2014. Programs.
Available at: <http://www.ykmontessori.ca/programs/>. Accessed: February 2014.
- Northwest Territories Teachers' Association. 2014. Interactive Regional Profiles Map.
Available at: <http://www.nwta.nt.ca/en/>. Accessed: February 2014.
- Northwestel. 2013. Northwestel Modernization Plan. Available at:
http://www.nwtel.ca/media/documents/nwtel_modernization_plan_15feb2013a_1.pdf.
Accessed: March 2014.
- Northwestel. 2014a. History: First in the North. Available at: <http://www.nwtel.ca/about-northwestel/history-first-in-the-north>. Accessed: February 2014.
- Northwestel. 2014b. Modernization. Available at: <http://www.nwtel.ca/about-northwestel/modernization>.
Accessed: February 2014.
- NTOS (Northwest Territories Opportunity Strategy). 2013. Northwest Territories Economic Opportunity Strategy: Executive Summary. Available at:
[http://www.nwtopportunities.com/sites/default/files/NWT%20Economic%20Opportunities%20Strategy%20\(Executive%20Summary\).pdf](http://www.nwtopportunities.com/sites/default/files/NWT%20Economic%20Opportunities%20Strategy%20(Executive%20Summary).pdf). Accessed: December 2013.
- NTPC (Northwest Territories Power Corporation). 2014a. Hydro. Available at: <http://www.ntpc.com/smart-energy/how-we-supply-power/hydro>. Accessed: February 2014.

- NTPC. 2014b. Community Map. Available at: <http://www.ntpc.com/our-community/community-map>. Accessed: February 2014.
- Nuna Logistics. 2014. Tibbitt to Contwoyto Winter Road. Available at: https://nunalogistics.com/clients/winter_road.html. Accessed: February 2014.
- Nunatsiaq Online. 2007. Can Traditions Cure Criminals? Available at: http://www.nunatsiaqonline.ca/archives/2007/706/70601/news/features/70601_184.html. Accessed: February 2014.
- Nunavut Arctic College. 2014. Kitikmeot Campus. Available at: 2014. <http://www.arcticcollege.ca/en/kitikmeot-campus-info>. Accessed: February 2014.
- Nunavut Parks. 2014. Kugluktuk/Bloody Falls Territorial Park. Available at: <http://nunavutparks.ca/english/parks-special-places/kugluk-bloody-falls-territorial-park/overview.aspx>. Accessed: February 2014.
- Nunavut Tourism. 2013a. Kugluktuk. Available at: <http://www.nunavuttourism.com/regions-communities/Kugluktuk>. Accessed: February 2014.
- Nunavut Tourism. 2013b. Coppermine River. Available at: <http://www.nunavuttourism.com/parks-special-places/heritage-rivers/coppermine>. Accessed: February 2014.
- Nunavut Tourism. 2013c. Hunting. Available at: <http://www.nunavuttourism.com/things-to-see-do/hunting>. Accessed: February 2014.
- Nunavut Tourism. 2013d. Camping and Hiking. Available at: <http://www.nunavuttourism.com/find-services/camping-hiking>. Accessed: February 2014.
- Nunavut Tourism. 2013e. Fishing Services in Nunavut. Available at: <http://www.nunavuttourism.com/find-services/fishing/advanced-search/1822>. Accessed: February 2014.
- Nunavut Tunngavik Inc. 2011. Kugluktuk Community Wellness Plan. Available at: http://www.tunngavik.com/files/2011/12/community-plan_kugluktuk_english_web.pdf. Accessed: February 2014.
- NWT Aboriginal Head Start. 2014a. Program Components. NWT Aboriginal Head Start Program. Available at: <http://www.nwtheadstart.org/Programs/ProgramComponents.aspx>. Accessed: March 2014.
- NWT Aboriginal Head Start. 2014b. NWT Aboriginal Head Start Program. Available at: <http://www.nwtheadstart.org/Home.aspx>. Accessed: March 2014.
- NWT Job Futures. 2014. Job Futures. Available at: <http://jobfutures.statsnwt.ca/>. Accessed: March 2014.
- NWT Protected Areas Strategy. 2012. Yambahti. Available at: <http://www.nwtpas.ca/area-yambahti.asp>. Accessed: February 2014.

- NWT Protected Areas Strategy. 2013. Dinaga Wek'ehodi. Available at: <http://www.nwtpas.ca/area-dinagawekehodi.asp> Accessed: February 2014.
- NWTHC (Northwest Territories Housing Corporation). 2009a. Home Ownership Core Need Income Thresholds – North Slave District. Available at: http://nwthc.gov.nt.ca/_live/documents/content/2009%20-%2010%20CNIT%20North%20Slave%20District%20Format%20effective%20April%201-2009.pdf Accessed: February 2014.
- NWTHC. 2009b. Home Ownership Core Need Income Thresholds – South Slave District. Available at: http://nwthc.gov.nt.ca/_live/documents/content/2009%20-%2010%20CNIT%20South%20Slave%20District%20Format%20effective%20April%201-2009.pdf Accessed: February 2014.
- NWTHC. 2013. Housing Choices 2013. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/HousingChoices2013.aspx. Accessed: February 2014.
- NWTHC. 2014a. Programs. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/Programs.aspx. Accessed: February 2014.
- NWTHC. 2014b. Public Housing. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/PublicHousing.aspx. Accessed: February 2014.
- NWTHC. 2014c. Transitional Rent Supplement Program (TRSP). Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/TRSP.aspx Accessed: February 2014.
- NWTHC. 2014d. Statistics. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/Stats.aspx. Accessed: February 2014.
- NWTHC. 2014e. New Rent Scale. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/NewRentScale12.aspx. Accessed: February 2014.
- NWTHC. 2014f. HCNIT. Available at: http://nwthc.gov.nt.ca/_live/pages/wpPages/HCNIT.aspx. Accessed: February 2014.
- OAG (Office of the Auditor General of Canada). 2011. 2011 March Report of the Auditor General of Canada. Available at: http://www.oag-bvg.gc.ca/internet/English/nwt_201103_e_34998.html. Accessed: February 2014.
- Parks Canada. 2011. Proposed Thaidene Nene National Park. Available at: <http://www.pc.gc.ca/eng/agen/wwf/conservation/thaidene-nene.aspx>. Accessed: February 2014.
- Peterson's Point Lake. 2014. Location. Available at: <http://www.petersonspointlake.com/location.html>. Accessed: February 2014.

- Public Health Agency of Canada. 2006. The Human Face of Mental Health and Mental illness in Canada: Chapter 12 Mental Health and Well-being of Aboriginal Peoples in Canada. Available at: <http://www.phac-aspc.gc.ca/publicat/human-humain06/15-eng.php>. Accessed: March 21, 2014.
- Public Health Agency of Canada. 2009. Directory of Services for Adult Survivors of Child Sexual Abuse. Available at: <http://www.phac-aspc.gc.ca/ncfv-cnivf/sources/nfnts/nfnts-dir-adult-surviv/nu-eng.php>. Accessed: March 2014.
- Public Health Agency of Canada. 2013. Aboriginal Head Start in Urban and Northern Communities Site Directory. Available at: <http://www.phac-aspc.gc.ca/hp-ps/dca-dea/prog-ini/ahsunc-papacun/search-recherche-eng.php>. Accessed: February 2014.
- RCMP (Royal Canadian Mounted Police). 2012a. About Us. Available at: <http://www.rcmp-grc.gc.ca/nt/about-ausujet-eng.htm>. Accessed: February 2014.
- RCMP. 2012b. About Us. Available at: <http://www.rcmp-grc.gc.ca/nu/about-ausujet-eng.htm>. Accessed: February 2014.
- RCMP. 2014a. RCMP. Detachments in the Northwest Territories. Available at: <http://www.rcmp-grc.gc.ca/nt/detach/index-eng.htm>. Accessed: March 2014.
- RCMP. 2014b. RCMP. Detachments in Nunavut. Available at: <http://www.rcmp-grc.gc.ca/nu/detach/index-eng.htm>. Accessed: March 2014.
- Rio Tinto. 2008. Diavik Diamond Mine – 2007 Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/Diavik_2007_SEMA_Report.pdf. Accessed: February 2014.
- Rio Tinto. 2009. Diavik Diamond Mine – 2008 Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/2008_Socio_Economic_Monitoring_Report.pdf. Accessed: February 2014.
- Rio Tinto. 2010. Diavik Diamond Mine - 2009 Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/2009_Socio_Economic_Monitoring_Report.pdf. Accessed: February 2014.
- Rio Tinto. 2011. Diavik Diamond Mine - 2010 Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/2010_Socio_Economic_Monitoring_Report.pdf. Accessed: February 2014.
- Rio Tinto. 2012 Diavik Diamond Mine - Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/2011_Socio_Economic_Monitoring_Report.pdf. Accessed: February 2014.
- Rio Tinto. 2013. Diavik Diamond Mine - 2012 Socio-Economic Monitoring Agreement. Available at: http://www.diavik.ca/documents/2012_Socio_Economic_Monitoring_Report.pdf. Accessed: February 2014.

- Salvation Army. 2010. Bailey House. Available at: <http://sanorth.ca/bailey-house/>. Accessed: February 2014.
- SSI Micro. 2014. Roaming. SSI Micro. Available at: <http://www.ssimicro.com/roaming>. Accessed: March 2014.
- Skills Canada NWT. 2009. Introduction to Skills Canada NWT. Available at: <http://www.skillscanadanwt.org/AboutUs/DirectorsMessage.aspx>. Accessed: February 2014.
- Spectacular NWT. 2014a. Getting Around. Available at: <http://spectacularnwt.com/howtogether/byair/gettingaround>. Accessed: February 2014.
- Spectacular NWT. 2014b. Fishing Day-trips. Available at: <http://spectacularnwt.com/whattodo/fishing/daytrips>. Accessed: February 2014.
- Spectacular NWT. 2014c. Enodah Wilderness Travel/Trout Rock Lodge. Available at: <http://spectacularnwt.com/content/enodah-wilderness-traveltrout-rock-lodge?cate=198>. Accessed: February 2014.
- Spectacular NWT. 2014d. True North Safaris. Available at: <http://spectacularnwt.com/content/true-north-safaris-ltd?cate=198>. Accessed: February 2014.
- Spectacular NWT. 2014e. Arctic Safaris. Available at: <http://spectacularnwt.com/content/arctic-safaris?cate=198>. Accessed: February 2014.
- Spectacular NWT. 2014f. Bathurst Inlet. Available at: <http://spectacularnwt.com/content/bathurst-inlet-lodge-ltd?cate=31>. Accessed: February 2014.
- Spectacular NWT. 2014g. Aurora. Available at: <http://spectacularnwt.com/whattodo/aurora/location>. Accessed: February 2014.
- Spectacular NWT. 2014h. Aurora Borealis. Available at: <http://spectacularnwt.com/wheretoeexplore/yellowknife/auroraborealis>. Accessed: February 2014.
- Statistics Canada. 2001a. Census Aboriginal Community Profile. Available at: <http://www12.statcan.gc.ca/english/profil01/AP01/Index.cfm?Lang=E>. Accessed: March 2014.
- Statistics Canada. 2001b. Census Community Profile. Available at: <http://www12.statcan.ca/english/profil01/CP01/Index.cfm?Lang=E>. Accessed: March 2014.
- Statistics Canada. 2006a. Census Aboriginal Community Profile. Available at: <http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/prof/92-594/index.cfm?Lang=E>. Accessed: March 2014.
- Statistics Canada. 2006b. Census Community Profile. Available at: <http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/index.cfm?Lang=E>. Accessed: March 2014.

- Statistics Canada. 2010. Chart 8 Total expenditure per student, (in current dollars), Canada, provinces and territories, 2007/2008. Available at: <http://www.statcan.gc.ca/pub/81-595-m/2010083/c-g/desc/desc8-eng.htm>. Accessed: December 16, 2013.
- Statistics Canada. 2011a. National Household Survey. Available at: <https://www12.statcan.gc.ca/nhs-enm/index-eng.cfm>. Accessed: March 2014.
- Statistics Canada. 2011b. National Household Survey. NHS Aboriginal Population Profile. Available at: <https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/aprof/index.cfm?Lang=E>. Accessed: March 2014.
- Statistics Canada. 2011c. Census Profile. Available at: <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>. Accessed: March 2014.
- Statistics Canada 2012a. CANSIM Table 051-0001 (Population by sex and age group, by province and territory). Available at: <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo31a-eng.htm>. Accessed: April, 2013.
- Statistics Canada 2012b. Canada (Code 01) and Canada (Code 01) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. <http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E>. Accessed: November 2013.
- Statistics Canada. 2013a. Migration: Interprovincial, 2009/2010 and 2010/2011. Available at: <http://www.statcan.gc.ca/pub/91-209-x/2013001/article/11786-eng.htm>. Accessed: March 2014.
- Statistics Canada 2013b. CANSIM Table 203-0030 (Survey of household spending (SHS), household spending, three territories and selected metropolitan areas, annual [dollars]). Available at: <http://www5.statcan.gc.ca/cansim/a05?searchTypeByValue=1&lang=eng&id=2030030&pattern=2030030>. Accessed: March 2014.
- Summit Air. 2013. Destinations. Available at: <http://flysummitair.com/destinations/>. Accessed: February 2014.
- Telus. 2013. Telus Arriving in Northern Canada. Available at: http://about.telus.com/community/english/news_centre/news_releases/blog/2013/08/26/true-north-strong-and-fast--telus-arriving-in-northern-canada. Accessed: March 2013.
- Thoits P, Hewitt L. 2001. Volunteer Work and Well-being. J Health Soc Behav. 42: 115 -131.
- Tłıchq. 2013. Congratulations to Jean Wetrade Gameti School. Available at: <http://www.tlicho.ca/news/congratulations-jean-wetrade-gameti-school>. Accessed: February 2014.
- Tłıchq Government. 2013. Tłıchq Land Use Plan. Available at: <http://mvlwb.com/sites/default/files/wlwb/documents/Tlicho%20Land%20Use%20Plan.pdf>. Accessed: February 2014.

- Toronto Star. 2013. Fur trapping taps into rising demand. Published 1st September 2013. Available at: http://www.thestar.com/news/insight/2013/09/01/fur_trapping_taps_into_rising_demand.html. Accessed: December 16, 2013.
- Trinh N. 2014. GNWT Aboriginal Affairs and Intergovernmental Relations. Communication on March 27, 2014.
- UNV (United Nations Volunteers). 2011. State of the World's Volunteerism Report 2011: Chapter 8 Volunteering and well-being. Available at: http://www.unv.org/fileadmin/docdb/pdf/2011/SWVR/English/SWVR2011_full_%5B11%5D_chapter8.pdf. Accessed: December 2013.
- Usher P, Wenzel G. 1989. Socio-economic aspects of harvesting. In Keeping the Land: A study of the Feasibility of a Comprehensive Wildlife Support Programme in the Northwest Territories, edited by R. Ames, D. Axford, P. Usher, E. Weick, and G. Wenzel. Ottawa: Canadian Arctic Resources Committee.
- Visit Nunavut. 2014. Bathurst inlet. Available at: <http://www.visitnunavut.com/bathurstinletlodge.html>. Accessed: February 2014.
- Visit Yellowknife. 2104a. Fishing. Available at: <http://www.visityellowknife.com/things-to-do/fishing>. Accessed: March 2014.
- Visit Yellowknife. 2104b. Ice Fishing. Available at: <http://www.visityellowknife.com/services/ice-fishing>. Accessed: March 2014.
- Visit Yellowknife. 2014c. Service Directory. Available at: <http://www.visityellowknife.com/service-directory>. Accessed: March 2014.
- Visit Yellowknife. 2014d. Boating and Canoeing. Available at: <http://www.visityellowknife.com/things-to-do/boating-canoeing>. Accessed: March 2014.
- Visit Yellowknife. 2014e. Hiking. Available at: <http://www.visityellowknife.com/things-to-do/hiking>. Accessed: March 2014.
- Visit Yellowknife. 2014f. Aurora. Available at: <http://www.visityellowknife.com/things-to-do/aurora>. Accessed: March 2014.
- Visit Yellowknife. 2014g. Heritage-Culture. Available at: <http://www.visityellowknife.com/things-to-do/heritage-culture>. Accessed: March 2014.
- WHO (World Health Organisation). 2005. World Health Organisation Constitution. Available at: <http://www.who.int/governance/eb/constitution/en/> Accessed: February 25, 2014.
- Williams Engineering. 2014. Kugluktuk Water Systems Upgrade. Available at: http://www.williamsengineering.com/what_we_do/KugluktukWaterSystemsUpgrade.. Accessed: February 2014.

- World Bank. 2013. Workers in the Informal Economy. Available at:
<http://go.worldbank.org/1PVGLNWYC0>. Accessed: December 2013.
- Yellowknife. 2009. Homelessness Report Card Spring 2009. Available at:
<http://www.yellowknife.ca/Assets/Public+Safety/HomelessnessReportCardSpring2009.pdf>.
Accessed: February 2014.
- Yellowknife. 2010. Smart Growth Plan. Available at:
<http://www.yellowknife.ca/Assets/Planning+and+Lands/Smart+Growth+Plan/SmartGrowthDevelopmentPlanRecommendationReport.PDF>. Accessed: February 2014.
- Yellowknife. 2011. General Plan. Available at:
http://www.yellowknife.ca/City_Hall/Departments/Planning_and_Development/Planning_and_Lands/GeneralPlan2011.html. Accessed: February 2014.
- Yellowknife. 2013a. Planning and Lands. Available at:
http://www.yellowknife.ca/City_Hall/Departments/Planning_and_Development/Planning_and_Lands.html. Accessed: February 2014.
- Yellowknife. 2013b. Harbour Plan. Available at:
http://www.yellowknife.ca/City_Hall/Departments/Planning_and_Development/HarbourPlan.html.
Accessed: February 2014.
- Yellowknife. 2014a. Yellowknife. Yellowknife Fire Division. Available at:
http://www.yellowknife.ca/City_Hall/Departments/Public_Safety/Fire_Division.html.
Accessed: March 2014.
- Yellowknife. 2014b. Yellowknife. Yellowknife Fire Division - Statistics. Available at: 2014. Fire Division Statistics. Yellowknife. Available at:
http://www.yellowknife.ca/City_Hall/Departments/Public_Safety/Fire_Division/FireDivisionStatistics.html. Accessed: March 2014.
- Yellowknife Catholic Schools. 2014. Kimberlite Career and Technical Centre. Yellowknife Catholic Schools. Available at: <http://www.ycs.nt.ca/Pre-Trades.php>. Accessed: March 2014.
- Yellowknife Education District No.1. 2013. Schools. Available at: <http://www.yk1.nt.ca/#Schools>.
Accessed: March 2014.
- Yellowknife Homelessness Coalition. 2009. Yellowknife Homelessness Report Card 2008. Spring 2009. Yellowknife, NWT, Canada.
- Yellowknife Visitors Guide. 2014. 2014 Visitors Guide. Available at:
http://www.yellowknife.ca/Assets/Communications+and+Economic+Development/Visitor+Guide/2014_Visitor_Guide.pdf. Accessed: February 2014.

- YHSSA (Yellowknife Health and Social Services Authority). 2012. A Shared Path Towards Wellness.
YHSSA. Available at:
http://www.yhssa.org/sites/default/files/a_shared_path_towards_wellness.pdf.
Accessed: February 2014.
- YHSSA 2014a. Yellowknife Primary Care Centre. Available at: <http://www.yhssa.org/health/clinics-and-health-centres/yellowknife/yellowknife-primary-care-centre>. Accessed: February 2014.
- YHSSA. 2014b. Mental Health Services. Available at: <http://www.yhssa.org/social-services/mental-health>.
Accessed: February 2014.
- YHSSA. 2014c. Services Available. Available at: <http://yhssa.hss.gov.nt.ca/social-services/mental-health/services-available>. Accessed: February 2014.
- YHSSA. 2014d. Social Services. Available at: <http://yhssa.hss.gov.nt.ca/social-services-landing>.
Accessed: February 2014.
- YWCA. 2014a. Alison McAteer House. Available at: <http://www.ywcanwt.ca/alison.html>.
Accessed: February 2014.
- YWCA. 2014b. Temporary Housing. Available at: http://www.ywcanwt.ca/temporary_housing.html.
Accessed: February 2014.

5 GLOSSARY

Term	Description
Aboriginal	The descendants of the original inhabitants of North America. The Canadian Constitution recognizes three groups of Aboriginal people: Indians (First Nations), Métis, and Inuit (<i>Constitution Act 1982</i>).
All-season road	An all-season road is a road that is motorable all year by the prevailing means of rural transport.
Baseline	A surveyed or predicted condition that serves as a reference point to which later surveys are coordinated or correlated.
Chained dollars	Chained dollars is a method of adjusting real dollar amounts for inflation over time, so as to allow comparison of figures from different years.
Country Food	Dietary items from the local region which are used for sustenance. Country food items include: fruit, vegetables, herbs, medicinal plants, fish and game.
Demographics	The study of changes (such as the number of births, deaths, marriages, and illnesses) that occur over a period of time in human populations.
Footprint	The proposed development area that directly affects the soil and vegetation components of the landscape.
Gross Domestic Product (GDP)	Measures the value added to all goods and services produced in the economy, and is calculated by summing labour income, mixed income, the cost of depreciation, profits, and indirect taxes less subsidies levied on production.
Local study area (LSA)	Defines the spatial extent directly or indirectly affected by the project.
Mammals	Air breathing, vertebrate animals characterized primarily by mammary glands in females, which function to feed offspring. Other defining characteristics of mammals include three middle ear bones and hair.
Person-Years	A person-year of employment is equivalent to 2,000 hours of labour per year.
Public Sector	Includes educational services, health care, and social assistance, and all levels (local, territorial, federal, and Aboriginal) of public administration.
Regional study area (RSA)	Represents the area of study for the assessment of cumulative (combined) effects of the Project and other past, existing, or planned developments.
Terms of Reference	The Terms of Reference identify the information required by government agencies for an Environmental Impact Assessment.
Traditional Knowledge (TK)	Knowledge systems embedded in the cultural traditions of regional, indigenous, or local communities. It includes types of knowledge about traditional technologies, the environment and ecology.
Traditional Land Use (TLU)	Use of the land by Aboriginal groups for harvesting traditional resources such as wildlife, fish, or plants, or for cultural purposes such as ceremonies or camping.
Treeline	The point (or imaginary line) beyond which tree growth dwindles.
Valued component (VC)	Valued components represent biophysical, economic, social, heritage and health properties of the environment that are considered to be important by society.
Waterbody	An area of water such as a river, stream, lake, or sea.
Watercourse	Riverine systems such as creeks, brooks, streams, and rivers.
Watershed	The entire surface drainage area that contributes water to a lake or river.
Winter road	Roads which are built over frozen lakes and tundra. Compacted snow and/or ice is used for embankment construction.