

APPENDIX 20-A
2012 ECONOMIC BASELINE REPORT

Seabridge Gold Inc.

KSM PROJECT 2012 Economic Baseline Report

SEABRIDGE GOLD



Executive Summary

Seabridge Gold Inc. is proposing to develop a gold, copper, silver, and molybdenum mine located in northwestern British Columbia. The proposed KSM Project (the Project) is approximately 950 km northwest of Vancouver and 65 km northwest of Stewart, within 30 km of the British Columbia–Alaska border (Figure 1.2-1). The estimated initial capital cost of the Project is US \$ 5.3 billion.

The Project is split between two geographical areas: the Mine Site, and Processing and Tailing Management Area (PTMA), connected by twin 23 km tunnels (Figure 1.2-2). The Mine Site will be located south of the closed Eskay Creek Mine, within the Mitchell Creek, McTagg Creek, and Sulphurets Creek valleys. Sulphurets Creek is a main tributary of the Unuk River which flows to the Pacific Ocean. The PTMA will be located in the upper tributaries of Teigen Creek and Treaty Creek. Both creeks are tributaries of the Bell-Irving River, which flows to the Nass River and Pacific Ocean. The PTMA is located about 19 km southwest of Bell II on Highway 37.

This baseline report presents a comprehensive overview of the past and present economic environment and context of the proposed Project, including patterns, trends, and changes over time. Economic conditions were assessed at the provincial, regional, and community levels to anticipate the Project's broad and local effects. This report will inform the identification and assessment of potential economic effects for the development of the Environmental Impact Statement and Application for an environmental assessment (EA) certificate for the federal and British Columbia EA processes. It will also inform the identification of measures to mitigate potential effects of the Project. Economic baseline information will provide a reference point against which future changes can be monitored.

Data was collected through desk-based research and by telephone and face-to-face interviews. Statistical data relied heavily on Statistics Canada's 2001, 2006, and 2011 Census and other government data, which tends to lack detail on the small communities in the Project area. Where possible, data was supplemented and contextualized through interviews with key professionals, Aboriginal leadership, community political leaders and residents, and service providers. Although the economic and social aspects of this research have been separated to ensure consistency with the Application Information Requirements, this economic baseline report should be read in conjunction with the *KSM Project: 2012 Social Baseline Report* (Rescan 2012b).

Mining has been an important component of the provincial economy for more than 150 years. In 2011, the goods sector represented 24% of the provincial gross domestic product (GDP), with the mining industry contributing 14% of the provincial goods sector GDP. Mining, oil, and gas extraction jobs also provided over 5.5% of employment in the goods sector in 2011, with most goods sector jobs being in construction and manufacturing.

Northwestern British Columbia is a more remote part of British Columbia relative to other regions in the province. Most communities within this region are isolated from major population and government centres, as well as from one another. Most of the smaller communities are

composed predominantly of Aboriginal people, including the Nisga'a, Tahltan, Skii km Lax Ha, Gitanyow, and Gitxsan.

The economies of Aboriginal communities rely on subsistence activities, local service businesses, and involvement in resource industries, notably mining and forestry. With the exception of Smithers, Terrace and, to a lesser degree, Stewart, the communities of northwestern BC depend heavily on natural resource extraction. Mining and forestry are the predominant industries in the region. A downturn in forestry has prompted a number of timber processing facilities to close in recent years, hurting the region's economy. Most operating mines in the region have been recently decommissioned or closed, resulting in the loss of a major source of employment.

Heavy dependence on the resource sector has created historic "boom and bust" economic patterns. When mineral prices rise, employment rises, skills and training increase, and demands for spin-off goods and services also grow. When mineral prices drop, operators re-evaluate whether mines are affordable. Closures and slowdowns result in increased unemployment, economic depression, and possible emigration in search of work.

However, northern BC has experienced a significant boom in exploration and mining activities in recent years, as well as investment in large infrastructure and utilities projects. Strong demand, particularly from Asia, and surging mineral prices have attracted considerable investment in exploration, helping to position BC as a potentially major source of global production. Despite the localized and frequently isolated nature of mining and exploration activities, the economic benefits are felt provincially through direct and indirect job creation, economic spin-offs, and tax revenues. Regionally and locally the benefits are also beginning to be actualized through a decrease in the unemployment rate and potential reversal in the declining population trend.

This economic baseline outlines relevant economic factors for which data on communities in the Project area are available, including: economic base (employment, unemployment, employment sectors, income and earnings, community plans, business services, economic development, and indices of economic hardship); mining (past, current, and proposed developments); forestry (economic context, vulnerability index, industry challenges, and revitalization strategies, and recommendations); and tourism (cruise ships, motel revenues, overseas and United States visitor entry numbers and points).

2012 Economic Baseline Report

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Acronyms and Abbreviations

Acronyms and abbreviations used in this document are defined where they are first used. The following list of abbreviations will assist readers who may choose to review only portions of the document.

AAC	Annual Allowable Cut
AANDC	Aboriginal Affairs and Northern Development Canada
AIR	Application Information Requirements
ALF	Active Labour Force
BC	British Columbia
BC EAO	British Columbia Environmental Assessment Office
BC ILMB	British Columbia Integrated Land Management Bureau
BC MARR	British Columbia Ministry of Aboriginal Relations and Reconciliation
BC MAELMD	British Columbia Ministry of Advanced Education and Labour Market Development
BC MEMNG	British Columbia Ministry of Energy, Mines and Natural Gas
BC MEMPR	British Columbia Ministry of Energy, Mines and Petroleum Resources (currently British Columbia Ministry of Energy, Mines and Natural Gas)
BC MEM	British Columbia Ministry of Energy and Mines (currently British Columbia Ministry of Energy, Mines and Natural Gas)
BC MFLNRO	British Columbia Ministry of Forests, Lands and Natural Resource Operations
BC MOFR	British Columbia Ministry of Forest and Range (currently British Columbia Ministry of Forests, Lands and Natural Resource Operations)
BVEDA	Bulkley Valley Economic Development Association
CEA Agency	Canadian Environmental Assessment Agency
DI	Diversity Index
EA	Environmental Assessment
EI	Employment Insurance
GDP	Gross domestic product
GHCO	Gitanyow Hereditary Chiefs' Office

Acronyms and Abbreviations

GTO	Gitxsan Treaty Office
ha	Hectares
ICABC	Institute of Chartered Accountants of British Columbia
IR	Indian Reserve
LSA	Local Study Area
LRMP	Land and Resource Management Plan
NFA	Nisga'a Final Agreement
NDIT	Northern Development Initiative Trust
NLG	Nisga'a Lisims Government
NTL	Northwest Transmission Line
PTMA	Processing and Tailing Management Area
RCMP	Royal Canadian Mounted Police
RDBN	Regional District of Bulkley Nechako
RDKS	Regional District of Kitimat-Stikine
RSA	Regional Study Area
Seabridge	Seabridge Gold Inc.
SERC	Social, Economic, Resource use, and Cultural
SFC	Skeena Fisheries Commission
SNDS	Skeena Native Development Society
TCC	Tahltan Central Council
TEDA	Terrace Economic Development Authority
TNDC	Tahltan Nation Development Corporation
US	United States

1 Introduction

1.1 Project Proponent

Seabridge Gold Inc. (Seabridge) is the proponent for the proposed KSM Project (the Project), a gold, copper, silver, molybdenum mine.

1.2 Project Location

The Project is located in the coastal mountains of northwestern British Columbia. It is approximately 950 km northwest of Vancouver and 65 km northwest of Stewart, within 30 km of the British Columbia–Alaska border (Figure 1.2-1).

1.3 Project Overview

The Project is located in two geographical areas: the Mine Site and Processing and Tailing Management Area (PTMA), connected by twin 23-km tunnels, the Mitchell-Treaty Twinned Tunnels (Figure 1.3-1). The Mine Site is located south of the closed Eskay Creek Mine, within the Mitchell, McTagg, and Sulphurets Creek valleys. Sulphurets Creek is a main tributary of the Unuk River, which flows to the Pacific Ocean. The PTMA is located in the upper tributaries of Teigen and Treaty creeks. Both creeks are tributaries of the Bell-Irving River, which flows to the Nass River and into the Pacific Ocean. The PTMA is located about 19 km southwest of Bell II on Highway 37.

The Mine Site will be accessed by a new road, the Coulter Creek access road, which will be built from km 70 on the Eskay Creek Mine Road. This road will follow Coulter and Sulphurets creeks to the Mine Site. The PTMA will also be accessed by a new road, the Treaty Creek Access Road, the first 3-km segment of which is a forest service road off of Highway 37. The Treaty Creek access road will parallel Treaty Creek.

Four deposits will be mined at the KSM Project—Kerr, Sulphurets, Mitchell, and Iron Cap—using a combination of open pit and underground mining methods. Waste rock will be stored in engineered rock storage facilities located in the Mitchell and McTagg valleys at the Mine Site. Ore will be crushed and transported through one of the Mitchell-Treaty Twinned Tunnels to the PTMA. This tunnel will also be used to route the electrical power transmission lines. The second tunnel will be used to transport personnel and bulk materials. The Process Plant will process an average of 130,000 tpd of ore to produce a daily average of 1,200 t of concentrate. Tailing will be pumped to the Tailing Management Facility from the Process Plant. Copper concentrate will be trucked from the PTMA along highways 37 and 37A to the Port of Stewart, which is approximately 170 km away via road.

The mine operating life is estimated at 51.5 years. Approximately 1,800 people will be employed annually during the Operation Phase. Project Construction will take about five years, and the capital cost of the Project is approximately US\$5.3 billion.



Figure 1.2-1

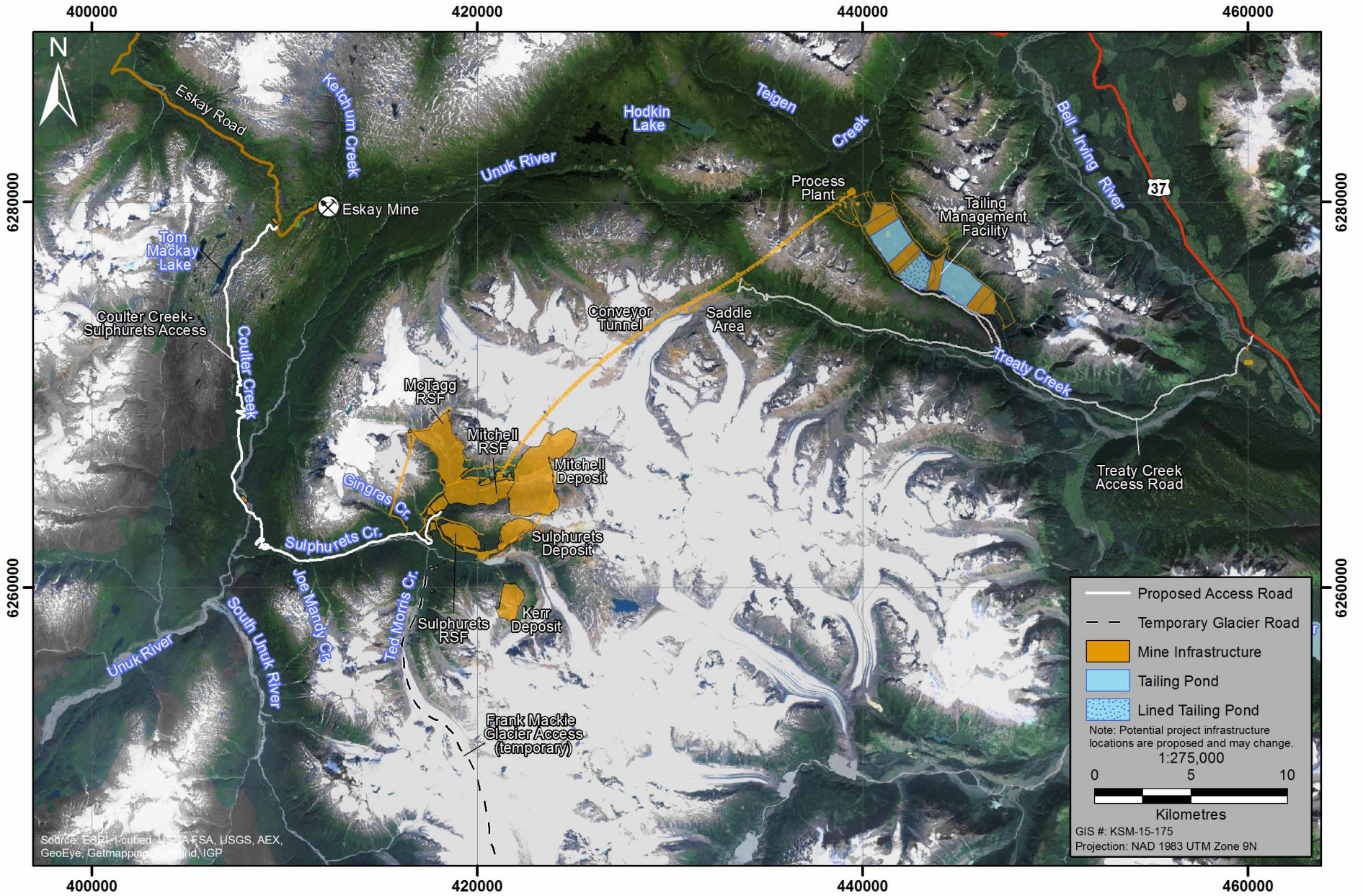


Figure 1.3-1

Figure 1.3-1

2 Objectives

The objectives of the economic baseline study are to:

- obtain a comprehensive understanding of the past and present economic environment and context within which the Project is proposed; with knowledge of current provincial, regional and community dynamics and trends, predictions of future impacts can be better predicted; and
- incorporate community considerations, interests, values, and concerns.

This report will be used to inform the federal and British Columbia EA processes for the Project, including the identification and assessment of potential economic effects on local communities, the region and province; the development of measures to mitigate potential effects; and inform the development of management plans.

In recognition that economic and social considerations are inter-related, this report should be considered in conjunction with the *KSM Project: 2012 Social Baseline Report* (Rescan 2012b).

3 Methods

3.1 Study Areas

3.1.1 Province of British Columbia (BC)

The province is included as a study area because the Project has broad economic implications for provincial economic and natural resource development. Baseline information will inform an assessment of effects on BC's economy and labour force. Table 3.1-1 provides the rationale for the economic study areas.

3.1.2 Regional Study Area

The Regional Study Area (RSA) incorporates two administrative regions: the Regional District of Kitimat-Stikine (RDKS), and Electoral Area A of the Regional District of Bulkley Nechako (RDBN; see Figure 3.1-1). A regional analysis is included because of the RSA's dependency on natural resources for economic opportunities and employment. A reliance on mining and forestry activities, in particular, distinguishes the RSA from other areas of the province. The Project is anticipated to rely largely on the RSA for human resources, supplies, services, and other requirements. The Skeena Queen Charlotte Regional District is not included within the RSA because it is not a key centre for mining services and direct use by the Project is minimal (i.e., limited to shipment of molybdenum concentrate to Prince Rupert).

The RDKS provides local government services to rural and unincorporated settlements within an area of 100,000km² in northwestern BC. The Regional District administers over 40 "functions" or services ranging from rural land use planning, to a community water system, to fire protection, to library services, to a public marina. Its members include Kitimat, Terrace, Stewart, Hazelton, and New Hazelton (RDKS 2012b). The RDKS Board of Directors is comprised of six municipal councillors or mayors, appointed annually from their respective municipal councils, and six Directors, elected from the rural Electoral Areas for three year terms (RDKS 2012a).

Electoral Area A of the RDBN comprises 3,688 km², including the Town of Smithers and the rural areas surrounding the municipality (NDIT 2010a). The RSA includes Nisga'a Lands as defined in the Nisga'a Final Agreement (NFA) well as Indian Reserves (IRs) for the Tahltan Nation, Gitksan Nation (including wilp Skii km Lax Ha), Gitanyow First Nation, Tsimshian First Nations, Haisla Nation, and Wet'suwet'en First Nations.

The RSA, proposed Project location, as well as the location of other industrial developments are illustrated in Figure 3.1-1.

3.1.3 Local Study Area

The Local Study Area (LSA) consists of select discrete communities located within the RSA. It includes Aboriginal and non-Aboriginal communities located within the RSA and who are expected to play a role in Project construction, operation and closure (e.g., labour and supplies)

due to their proximity to the Project and its transportation routes (Table 3.1-1). Communities include municipalities (incorporated and unincorporated) and IRs.¹

Table 3.1-1. Rationale for Regional and Local Study Areas

Study Area	Rationale
Regional Study Area	
Regional District of Kitimat-Stikine (RDKS), and Electoral Area A of the Regional District of Bulkley Nechako (RDBN)	The Project will rely largely on this area of northwestern BC for human resources, supplies, services, and other requirements. Employment, income, and GDP impacts from the Project are expected across this region.
Local Study Area Communities	
Nisga'a villages (Gitlaxt'aamiks [New Aiyansh], Gitwinksihlkw, Laxgalts'ap, and Gingolx)	The Nisga'a Nation may provide labour, goods, and services to the Project. Certain Project components fall within the Nass Area as defined by the NFA.
Tahltan communities (Telegraph Creek ¹ , Dease Lake 9 ² , and Iskut 6)	The Tahltan communities are the closest communities to the Project. The Tahltan may provide labour, goods and services for the Project (as they did for the recently closed Eskay Creek mine). Certain Project components fall within the traditional territory of the Tahltan Nation.
District of Stewart	Concentrate from the KSM Project will be transported to the Port of Stewart by highways 37 and 37A road and then shipped overseas. Proposed hauling activities may affect traffic levels and patterns, as well as local businesses and economic activity. Stewart may provide labour and services for the Project.
Village of Gitanyow Gitanyow 1	The Gitanyow may provide labour and services for the Project. The proposed concentrate haul route along Highway 37A as well as the transportation of construction and operation materials along Highway 37 from Gitwanga (Kitwanga) traverses Gitanyow territory. Increased traffic may affect residents' traplines and other economic as well as subsistence activities.
Village of Hazelton and District of New Hazelton	These communities may provide labour, supplies, and services contracts for the Project. The Skii km Lax Ha and Gitxsan ³ members reside in communities in the Hazelton area. Certain Project components fall within or adjacent to an area claimed by the Skii km Lax Ha. The Highway 37 haul route traverses Skii km Lax Ha territory. Increased traffic may affect residents' traplines and other economic as well as subsistence activities.
Town of Smithers and City of Terrace	Smithers and Terrace are the primary service centres for the region. As two of the largest communities in northwestern BC, these communities will likely provide some of the Project's labour, supplies, and service contracts. Smithers will also serve as a transportation hub for the Project.
Highway 37 unincorporated communities : Bell II, Meziadin Junction, and Bob Quinn Lake	Project traffic , including concentrate trucks and equipment supply vehicles, will be using highways 37/37A for hauling. Increased traffic may affect settlements along the highway. Bob Quinn Lake is included because of potential impacts during construction, and transportation of materials during production, as well as airstrip use for personnel transport.

¹ The community of Telegraph Creek is comprised of several reserves, three of which are populated: Telegraph Creek 6, 6A and Guhthe Tah 12.

² Dease Lake 9 and the unincorporated community of Dease Lake are both included in the LSA and discussed separately in this report.

³ Additional Gitxsan wilp or communities are not included due to proximity to the Hazelton area for economic livelihoods, and lack of overlap with proposed Project components or activities.

¹ The selection of LSA communities was completed in conjunction with the *KSM Project: 2012 Social Baseline Report* and relates to economic, social, and heritage considerations.

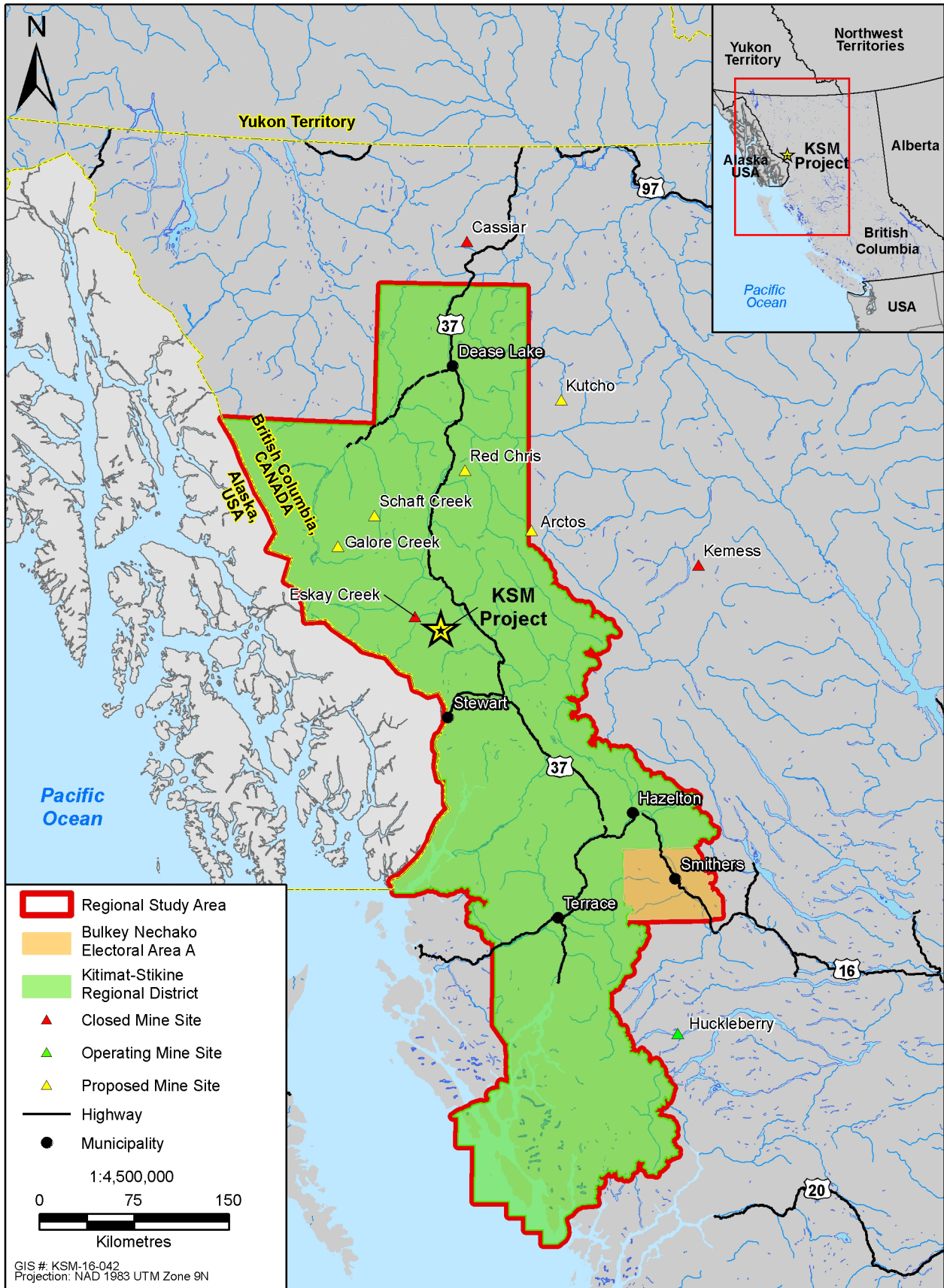


Figure 3.1-1

Table 3.1-1 provides the rationale for including each community for this study. Figure 3.1 2 identifies the communities which comprise the LSA, as well as proposed mining and hydroelectric projects.

Information relating to unincorporated communities, such as South Hazelton, is aggregated within the statistical data provided for the RDKS. Dease Lake is discussed in more detail due to the presence of government and business services and its role as a service centre for local communities. Prince Rupert is not included within the LSA communities as it is not a mining service centre and the truck traffic from the shipment of molybdenum concentrate to the port is anticipated to be negligible.

3.2 Approach

The economic baseline study aims to present a detailed summary of the economic environment and context of the proposed KSM Project, at the regional, and community level. Data were collected with consideration of Health Canada’s *The Canadian Handbook on Health Impact Assessment*, which promotes a holistic approach to health and well-being. It recognises the inter-connected relationships between communities and the physical environment. With respect to economic assessments, the Guide’s determinants of health include employment and working conditions as well as income and social status.

Although the economic and social aspects of this research have been separated to ensure consistency with the KSM Project Application Information Requirements issued by the BC Environmental Assessment Office on January 31, 2011, this report acknowledges the complexity of human well-being and adopts a holistic approach wherever possible. This baseline is to be used in conjunction with the *KSM Project: 2012 Social Baseline Report* (Rescan 2012b). Table 3.2-1 provides a summary of the economic components considered herein.

Table 3.2-1. Economic Components of the Baseline Study

Component	Description/Summary
Context	Location, history, and other relevant information pertaining to study aboriginal and non-aboriginal communities.
Population	Population, Aboriginal population, median age and gender ratio.
Economy	Economic foundations of local and regional economies, and trends over time, including characterization of industry and business.
Employment	Labour force characteristics, including size, participation in economy, employment and unemployment rates, income assistance rates, employment sectors, and barriers to employment.
Non-wage sector	Subsistence activities.
Services	Business, economic development, and employment services and programs.

3.2.1 Data Collection and Information Sources

This study is based on desk-based research and field interviews undertaken between May 2008 and August 2012. The desk-based research relied on publicly available information, including statistics, and other data from provincial, regional, local, and Aboriginal governments and organizations. Other data included published and unpublished reports, media analyses, and information from public involvement activities during the EA. Indicators were determined by the scope of the analysis and the defined study areas. Availability and reliability of information and data were also considered. Table 3.2-2 provides a list of indicators used for this report and their sources.

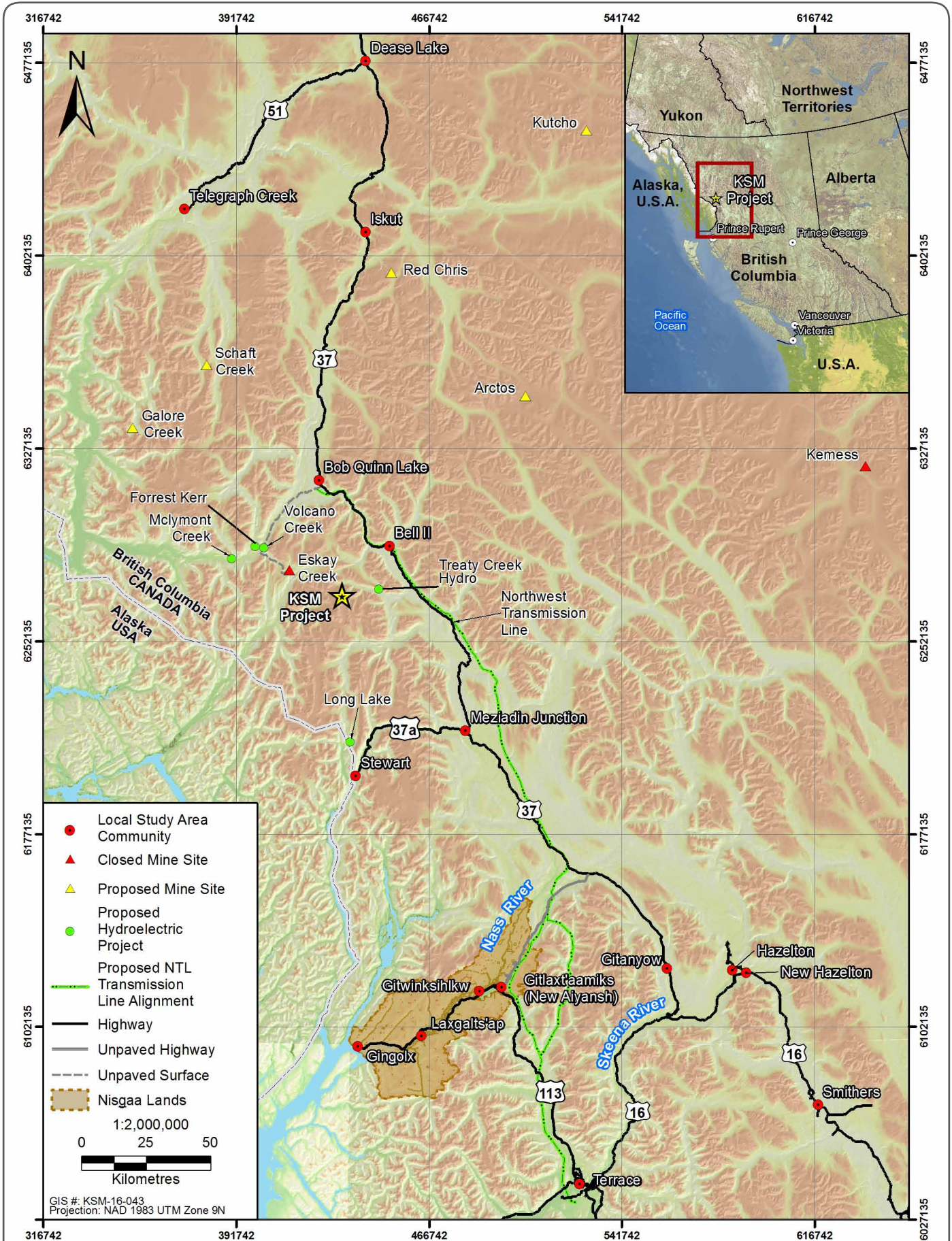


Figure 3.1-2

Table 3.2-2. Economic Indicators

Topic	Indicators*	Sources
Population	<ul style="list-style-type: none"> • Community populations • Aboriginal membership 	<ul style="list-style-type: none"> • Census of Canada (2001, 2006, 2011) • Statistics Canada Aboriginal Population Profile (2001, 2006)** • AANDC • Tahltan Census (2007) • Skeena Native Development Society Labour Market Census (2006)
Economy	<ul style="list-style-type: none"> • Potential labour force • Active labour force • Participation rate • Employment rate • Unemployment rate • Seasonal employment • Income (range, median) • Earnings (range, median, sources) • Employment sectors • Occupations • Participation in mining employment • Employment Assistance receivership or income assistance rates (for Smithers and Terrace only) • Characteristics of local and regional business and industry 	<ul style="list-style-type: none"> • Census of Canada (2001, 2006, 2011) • Statistics Canada Aboriginal Population Profiles (2001, 2006)** • AANDC • Tahltan Census (2007) • Skeena Native Development Society Labour Market Census (2006) • BC Stats and other provincial ministries • Nisga'a Lisims Government • Regional District of Kitimat Stikine • Municipal websites (Terrace, Smithers, etc.) • Tourism BC • Invest BC • Primary qualitative research/interviews
Economic Services	<ul style="list-style-type: none"> • Business support • Economic development organizations • Employment support 	<ul style="list-style-type: none"> • Census of Canada (2001, 2006, 2011) • BC Stats and other provincial ministries • Terrace Economic Development Authority • Bulkley Valley Economic Development Association • Municipal websites (Terrace, Smithers, etc.) • Primary qualitative research/interviews
Subsistence Economy	<ul style="list-style-type: none"> • Subsistence harvesting levels • Consumption of country foods (as a % of total consumption) • Income derived from subsistence harvesting 	<ul style="list-style-type: none"> • Primary qualitative research/interviews • Ministry of Environment • Tahltan Census (2007) • Recent environmental assessment submissions posted by the BC EAO

* The availability of community information varies significantly and may not be available for all communities.

** 2011 Aboriginal Population Profiles were not available at the time of writing this report.

Primary research was conducted to fill data gaps remained after the collation and analysis of existing information and data. Data were gathered through telephone and face-to-face interviews, and focus groups with municipal, regional, provincial and Aboriginal service providers, community organizations, individuals, and community economic development officers.

3.2.2 Data Limitations

Statistical information, particularly for the smaller communities, is often limited. This is caused in part by confidentiality concerns regarding published data in small communities, and in part because information sources typically available for larger centres simply do not exist. In the absence of pre-existing quantitative and qualitative studies, some sections rely on the contextual information for the wider region and anecdotal evidence from community professionals and authorities with first-hand knowledge of the communities. In these cases, attempts have been made to verify opinions and anecdotes through triangulation with other sources and interviews. Remaining contrasting evidence is noted in the text.

3.2.2.1 Quantitative

A variety of local, regional, provincial and federal data were used to develop this report. These statistics often relied on a common source: Statistics Canada's 2001, 2006, and 2011 census data (Statistics Canada 2002b, 2007b, 2012a). For example, BC Stats employs Statistics Canada census data for analysis and projects, as do other provincial, municipal and academic sources of data. Further, much of the economic data has been aggregated because communities in the LSA are small. The aggregation process may mask differences between the communities. In these cases, it is difficult to cross-check data.

Outdated data are another concern. Data from the 2011 census focused on a narrower range of topics. As a result, 2011 economic-related data are not available, particularly at the community level. There have also been global and national economic changes since 2006 census data was compiled. Therefore caution must be employed when drawing conclusions about the RSA, and LSA communities' current characteristics and outlooks. Additional information sources, such as data from the Institute of Chartered Accountants of BC (ICABC), help address certain gaps, particularly at the regional level, though the data may not be fully comparable to 2006 data (ICABC 2012).

Data inconsistencies also emerge with respect to the regional area of the province, including areas defined by regional districts, municipalities, economic development regions, and land management planning. These various administrative and legal boundaries rarely coincide with one another, and have also changed over time.

Finally, the availability of information varies for each community and is lacking for some communities. For instance, the municipalities of Terrace, Smithers, and Stewart have a good level of economic-related information compared to unincorporated areas such as Dease Lake, which until recently had no local governing bodies mandated to collect data.

3.2.2.2 Qualitative

To address data gaps and limitations, statistical data was supplemented with information gathered from interviews with key professionals, leadership, residents, and service providers in the communities. Wherever possible, information from interviews was cross-checked for validity and reliability. Efforts have been made to consolidate and verify data from a variety of sources, on a variety of scales, and with a variety of focuses.

As previously noted, there are notable limitations to statistical data, particularly in smaller communities, that would normally be complemented with qualitative data derived from community-based collaborative research involving local community members. All potentially affected Aboriginal groups (Table 3.1-1) were invited to participate in the economic baseline study and provided opportunities to review desk-based research. Aboriginal groups elected to participate to varying degrees. Information on the Tahltan Nation and the Skii km Lax Ha is limited to what was available and/or accessible at the time of writing due to the lack of participation in community interviews.

3.2.3 Assumptions

Assumptions guiding baseline work include:

- The Project will derive a portion of its workforce from the communities of Iskut, Dease Lake, Telegraph Creek, the Village of Gitanyow, Gitlaxt'aamiks, Gitwinksihlkw, Laxgalts'ap, and Gingolx, as well as the Hazeltons, Stewart, Terrace and Smithers.
- Concentrate will be hauled by truck along the Treaty Creek access road, south along Highway 37 to Meziadin Junction, and west along Highway 37A to the Port of Stewart. Molybdenum concentrate will be hauled via highways 37 and 16 to the port in Prince Rupert.
- Materials required for Project construction and operation will be hauled to site via Highway 37.
- On a general level, the Nisga'a Nation, as well as the Aboriginal groups of northwestern BC (including the Tahltan, Skii km Lax Ha, Gitxsan, and Gitanyow) exhibit characteristics typical of other First Nations in BC, including economic traits and patterns.
- Census and other statistical information, with consideration to relevant temporal constraints, accurately reflect the characteristics of each community's economic and employment levels.
- The term "economic" includes social, economic, health, heritage, and community components and considerations.

4 Results

4.1 Provincial Study Area

Baseline information in this section focuses on the provincial economy with emphasis on natural resources, mining and employment trends.

4.1.1 British Columbia Economy

British Columbia (BC) comprises 13% of the national population and is currently the third most populous province in Canada (Statistics Canada 2012d). In July 2011, BC Stats estimated the provincial population at 4,573,321, a 0.9% increase from July 2010's estimated population and an 18% increase from 1996 (Table 4.1-1; BC Stats 2012b; Statistics Canada 2012a). The total population 15 years and over comprised 3,722,695 persons. Population growth in recent decades has been driven largely by immigration, particularly from Asia (BC Stats 2006). Approximately five percent (4.8%) of the provincial population identified as Aboriginal when this data was last reported in 2006 (Statistics Canada 2007a).

Table 4.1-1. British Columbia Population (1996-2011)

Year	1996	2001	2006	2011	% Change (1996 - 2011)
British Columbia	3,724,500	3,907,738	4,113,487	4,400,057	+18.1%

Source: Statistics Canada (2002b, 2007b, 2012a).

From an economic perspective, BC has historically relied on natural resource industries. The fur trade and gold rush fuelled the economy in the nineteenth century, while mining and forestry drove the economy throughout the early twentieth century. Over the course of the last few decades, the provincial economy has increasingly diversified. Although natural resource industries remain important in the provincial economy, the balance has shifted to include value-added manufacturing and services. Employment in the forestry, fishing, mining and oil and gas sectors has mirrored this shift with employment rates in the natural resource sector falling from 3.3% of the provincial labour force in 1990 to 1.8% in 2011 (BC Stats 2012c). However, this trend may be reversing as the number of people employed provincially in the natural resource sector has notably increased in recent years. Notably, from September 2011 to September 2012, employment in natural resources increased at a rate of 24.6% (Statistics Canada 2012b).

4.1.2 Economic Sectors

BC's economy is responsible for 12% of Canada's GDP, with the goods and services sectors each representing 24% and 76% of provincial GDP respectively (Table 4.1-2; BC Stats 2011b). In recent decades, employment and income contributions from these sectors have changed remarkably, reflecting both BC's growing population and its evolving role within Canada. BC's coastal location has helped the province evolve into a transit point for goods and people travelling to and from Asia and the Pacific. Service demand continues to increase as populations in southern BC grow. In 2011, BC's employed workforce consisted of nearly 2.3 million workers, of which over 80% was employed in the services sector (Table 4.1-2).

Table 4.1-2. Contribution of Resource Industries to the BC Economy, 2011

Sector/Industry	Number of People Employed 2011	Percent of Total Employment 2011	BC GDP 2011*	Percent of Total GDP (2011)
Manufacturing	163,900	7.2%	13,562	8.6%
Construction	204,600	8.9%	10,323	6.6%
Mining, Oil and Gas Extraction	24,700	1.1%	4,873	3.1%
Utilities	12,800	0.6%	3,219	2.0%
Forestry and Logging	14,000	0.6%	2,797	1.8%
Agriculture	26,100	1.1%	1,128 (crop and animal production)	0.7%
Fishing, Hunting and Trapping**	1,900 (est.)	0.09%	n/a	n/a
Total (Goods Sector)	447,400	19.7%	37,466	23.8%
Total (Services Sector)	1,827,200	80.3%	120,785	76.6%
Provincial Total (all industries)	2,274,700	100%	157,525	100%

Source: BC Stats (2012a, 2012c).

*GDP expressed in millions of chained 2002 dollars

** 2010 data (2011 data unavailable)

Note: Absolute data for individual categories used to calculate percentages and for the totals presented above have not been adjusted, and may contain irregularities derived from the original source. GDP sector percentages do not sum exactly to the goods sector total percentage due to the need to disregard several smaller data categories that were aggregated across industries.

Despite the growing economic importance of the services sector, the following section focuses on the goods sector, mining, and other primary resource industries with respect to their contributions to the provincial economy and labour market. This focus allows the discussion to remain relevant to the KSM Project and its contribution to this sector.

4.1.2.1 Goods Sector

Both primary extractive and harvesting industries (mining, forestry, fishing, and agriculture) and secondary manufacturing industries (construction, utilities, and food/wood/metal product manufacturing/processing) are components of the goods sector. In 2011, the goods sector provided one in five jobs (19.7%) in the province (Table 4.1-2)—a significant decrease from the 1970s when the sector accounted for one in three jobs (BC Stats 2012a). Nevertheless, the sector consistently contributes more to the provincial GDP than its relative share of provincial employment due to higher levels of efficiency and productivity (e.g., use of machinery and equipment), and a greater number of average hours worked (BC Stats and BC MAELMD 2010).

The proportion of the goods sector to provincial GDP has declined since the 1980s. In 1984, for instance, the goods sector contributed around 31% of provincial GDP, whereas in 2011 the figure had dropped to approximately 24% (BC Stats 2012a). Resource-based industries, however, continue to play an important role in BC's economy and provide an important source of employment, more so in the province's northern communities (see Section 4.2; BC Stats and BC

MAELMD 2010). Forestry (wood, pulp, and paper) and energy products continue to be the province's main exports, each respectively representing slightly over 30% of total exports in 2011 (BC Stats 2012e). Mining (excluding oil and gas) contributed \$1.09 billion² dollars (0.7% of total GDP) to the provincial GDP in 2011 (BC Stats 2012a). Support activities for mining and oil and gas extraction³ contributed an additional \$683 million⁴ dollars (BC Stats 2012a).

Overall, manufacturing in 2011 formed the largest proportion of the GDP of the goods sector (37%), followed by construction (28%). Mining contributed 14% of the goods sector GDP, forestry and logging 8%, while agriculture (including fishing and hunting activities) contributed 4% and utilities 9% (Figure 4.1-1).

In terms of employment, construction and manufacturing provided the vast majority of 2011 employment in the goods sector. Construction accounted for 46% of jobs in the BC goods sector, followed by manufacturing (37%), including the production of various food, wood, paper, metal, and electronic products (Figure 4.1-1). Provincial employment in agricultural activities amounted to 5.8% of the total goods sector labour force, while mining, oil, and gas extraction made up 5.5% and forestry 3.1%.

The goods sector is more susceptible to economic cycles than the service sector. As a result, employees in the goods sector are more likely to experience periods of unemployment, with provincial unemployment rates in this sector typically following the province's economic trends (BC Stats and BC MAELMD 2010). Figure 4.1-2, for instance, shows how goods sector unemployment was over double service sector unemployment following the 2008/2009 economic downturn.

Mineral exploration, mining and forestry are vital industries in many rural, northern communities (BC Stats and BC MAELMD 2010). Brief provincial-scale industry summaries are provided below to supplement the information profiles of the RSA and communities in the LSA in later sections of the report.

4.1.2.2 Mining

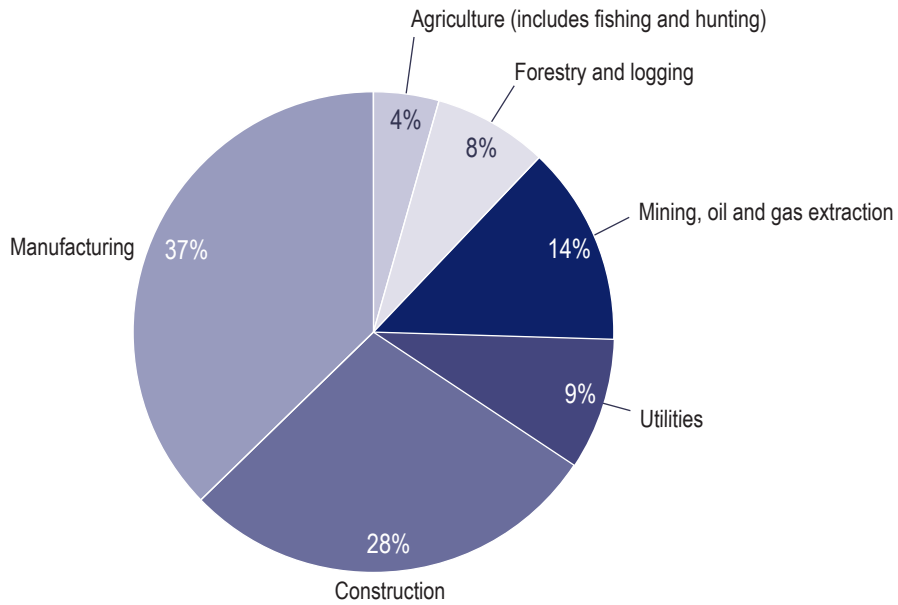
Mining has been an important component of the provincial economy for over 150 years. In recent years, both northwestern and northeastern BC have experienced a significant boom in exploration and mining activities. Strong market demand—particularly from Asia—and surging mineral prices have attracted considerable investment in exploration, helping to position BC as potentially a globally-important source of production. Despite the localized and frequently isolated nature of mining and exploration activities, the economic effects are felt provincially through direct and indirect job creation, economic spin-offs, and tax revenues (IPGDC and NDIT 2009).

² Chained 2002 dollars.

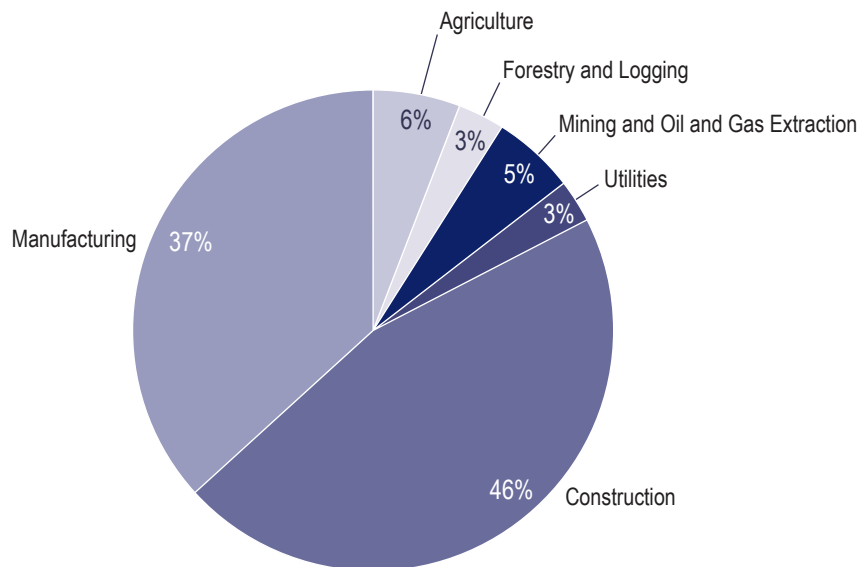
³ Numbers for mining support activities alone are not available.

⁴ Chained 2002 dollars.

Industry Distribution of BC Goods Sector GDP



Industry Distribution of BC's Goods Sector Employment



Source: Statistics Canada (CANSIM tables 379-0025 and 379-0026)
Data last revised: Apr 27, 2012 / Prepared by: BC Stats

Industry Distribution of BC's Goods Sector Employment / Industry Distribution of BC's Goods Sector GDP

Figure 4.1-1

Unemployment Rate (%)

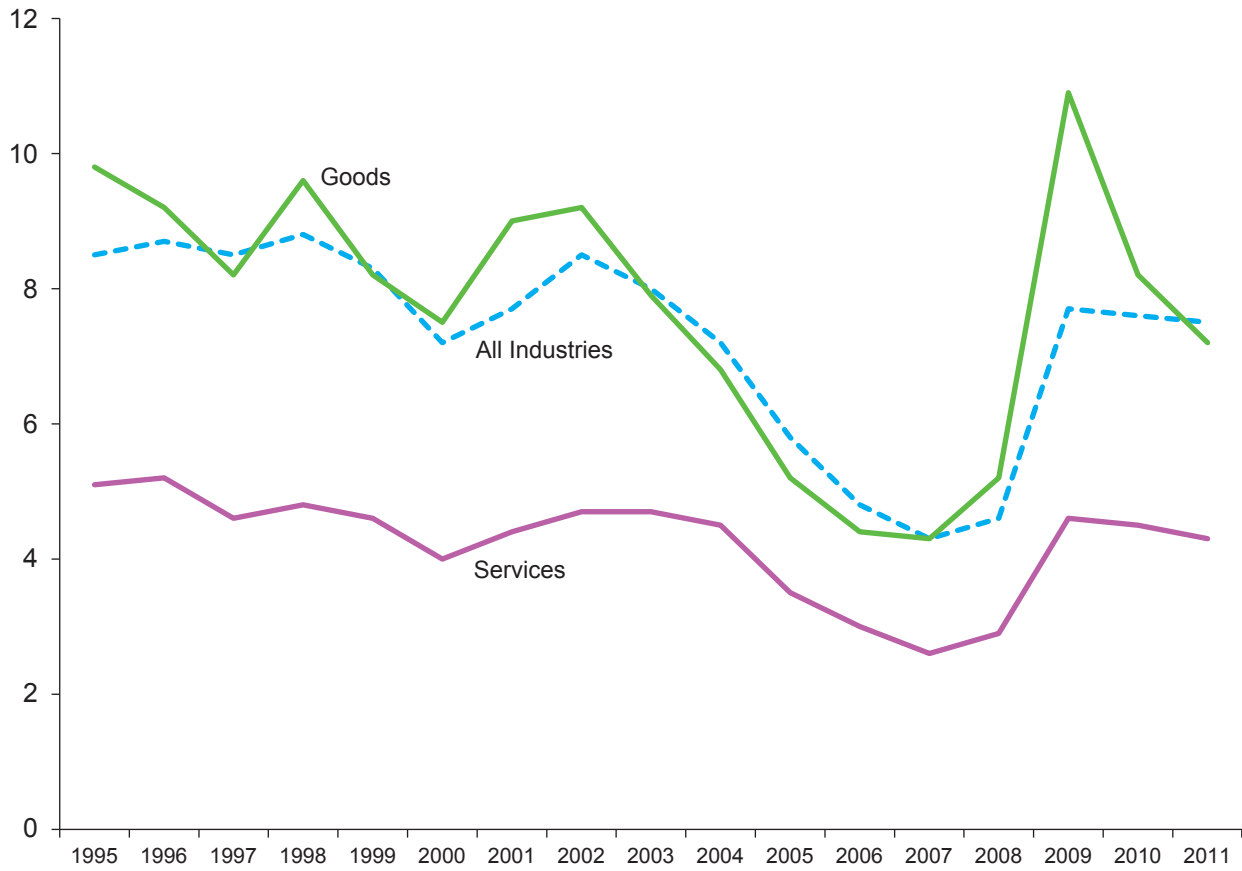


Figure 4.1-2

Since 1997, the BC-based Fraser Institute has conducted an annual survey examining the social, environmental, and political contexts of various jurisdictions around the world in relation to the ability to attract mining investment. Although BC ranked poorly in the first reports, recent reports have seen marked improvements. The province has gradually risen to the top-half of investment locations in terms of attractiveness of their mining policies (McMahon and M. Cervantes 2011). In the 2010/2011 survey, BC ranked thirty-sixth out of 79 locations, ahead of Nunavut (forty-fourth) and the Northwest Territories (fifty-second), while Alberta, Saskatchewan, and Quebec ranked first, third, and fourth, respectively.⁵

4.1.2.2.1 Revenue

Two recent reviews of the BC mining industry (PricewaterhouseCoopers 2011, 2012) included the participation of at least 40 mining companies (each year) and highlighted an industry rebound from the global slowdown in 2008/2009:

- Gross mining revenues were \$9.9 billion in 2011, up from \$7.9 billion in 2010, an increase of 25%. This recovery was mainly explained by high mineral prices, in particular coal prices, and increased coal shipments.
- Net income (before taxes) increased from \$2.2 billion in 2009 to \$3.7 billion in 2010, and remained steady at \$3.7 billion in 2011. This represented a reversal from the \$1.0 billion decrease in net income between 2008 and 2009.
- Exploration expenditures among survey participants increased from \$157 million to \$431 million between 2009 and 2011, and increased by a total of 113% between 2010 and 2011. In comparison, the Ministry of Energy, Mines and Natural Gas (MEMNG) reported a total of \$463 million in mineral exploration expenditures in BC in 2011, up from \$322 million in 2010, an increase of 44% (BC MEMNG 2012b).

The value of BC mineral production (excluding oil and gas) was \$8.6 billion in 2011, 20% more than its 2010 value (\$7.1 billion). Coal was the main mineral extracted, representing approximately 66% (\$5.7 billion) of the total value of BC solid mineral production, followed by copper, which accounted for 18% or \$1.5 billion. While the metals sector exhibited a significant slowdown during 2009 and a subsequent rebound in 2010, coal production and exploration remained strong over 2009 (BC MEMNG 2012b).

4.1.2.2.2 Global Market Demand

BC's mining industry is sensitive to global economic demand because of the large proportion of exports to production and the fact that mineral prices are set internationally. The industry suffers when global demand decreases, and mining exploration and activity accelerates when demand for minerals increases (BC Stats 2006). Mineral exploration investments in BC soared over 14-fold from \$32 million to \$463 million between 2001 and 2011 (BC MEMNG 2012a), in large part due

⁵ The ranking is based on a composite index, the Policy Potential Index (PPI), which measures the effect of government policies on mining exploration. Examples include: uncertainty concerning the public administration and enforcement of existing regulations, environmental regulations, taxation; uncertainty regarding native land claims and protected areas, infrastructure, socio-economic agreements, political stability, labour issues, geological data base, etc.

to increased demand and commodity prices (PricewaterhouseCoopers 2012). In 2009, however, exploration spending had decreased by more than 50% over the previous year due to the economic downturn. In 2010, mineral exploration spending rebounded to \$322 million, more than double its 2009 value (BC MOFML and MNRO 2011), with spending increasing again in 2011.

Market growth, particularly in Asia, has driven rising mineral prices worldwide. Coal made the most significant contribution to net provincial revenues in 2011, while copper net revenues decreased by over 4% and molybdenum revenues remained consistent. Gold continued to climb in 2009, 2010 and 2011 (PricewaterhouseCoopers 2009, 2011, 2012).

4.1.2.2.3 Tax Revenue Benefits

Federal, provincial and municipal tax revenue from mining provides economic benefits that are felt outside the area of operations. Tax revenues are used by government to fund social, health, education, and other programs and services for residents nationally, provincially, and within local communities.

The mining industry contributed \$805 million in government payments in 2011, significantly more than the \$691 million in 2010 (PricewaterhouseCoopers 2012). Companies operating in BC also pay provincial and federal income taxes. Direct government revenues from mining include a mineral tax levied on mine operators under the *Mineral Tax Act (1996b)*, a mineral land tax on freehold mineral rights holders under the *Mineral Land Tax Act (1996a)*, and an annual mine health and safety inspection fee (BC Ministry of Finance 2012).

4.1.2.2.4 Operation and Exploration Activities

Mineral production in BC was worth \$8.6 billion in 2011 (BC MEMNG 2012b). At the end of 2011, there were ten metal, eleven coal, and 32 industrial mineral mines, as well as hundreds of quarries in operation across BC. These numbers increased slightly from 2010 totals. Two mines opened and two mines were under construction in 2011. A total of 211 exploration projects were underway throughout BC in 2011, the same amount as there were in 2010 although 44% fewer than in 2009 (BC MEMNG 2012b).

While no mining-related EA certificates were issued in 2011, the BC EAO reported 26 mine projects in the EA process, including three projects in the Application stage and 23 in the Pre-application stage. There are also major expansions and upgrades underway for a number of existing mines (BC MEMNG and BC MFLNRO 2012).

More than half of Canadian exploration companies are based in BC. The rise in commodity prices over the past few years has been mirrored by increased expenditures related to mineral exploration across the province. Exploration expenditures have increased from \$154 million in 2009 to \$463 million in 2011, whereas capital expenditures increased by 135% over 2010, from \$1.25 billion to \$2.94 billion (BC MEMNG 2012b). Projects under construction accounted for almost \$1 billion of the total capital expenditures (PricewaterhouseCoopers 2012).

4.1.2.2.5 Employment

Employment in BC's mining, oil, and gas industries has trended upwards since 1987; however there were dips in employment in the early 1990s and in the first few years of the new millennium. In 2003, the industry and support activities employed 13,100 people, rising to 25,400 in 2008. In 2009, 24,200 individuals were employed in the industry, 6% fewer from the previous year, most likely due to the recession, with employment rebounding to 24,700 workers in 2011 (BC Stats 2012c). Approximately 90% of workers in this industry are male (BC Stats 2009e).

Workers earned the highest wages of any industry in BC, with average annual salaries and benefits increasing from \$93,600 in 2005 to \$115,700 in 2011 (PricewaterhouseCoopers 2007, 2009, 2012). The average weekly pay for a mining worker in 2010 was \$1,632, which surpassed the earnings of workers in forestry, manufacturing, finance and construction by 72%, 70%, 56%, and 53%, respectively. High salaries and benefits reflect the current demand for (and shortages of) skilled and experienced workers in mining, as well as in other industrial and trades industries across the province. Nationally, the Mining Industry Human Resources Council predicts a mining industry labour shortfall of 60,000 to 90,000 people by 2017 (French 2009).

A significant proportion (33%) of mining industry jobs, including miners, drillers and mining equipment operators, are unique to primary industries. Employment in trades, transportation, and equipment operations was also common (38%). Exploration and manufacturing activity employment (e.g., refining, smelting, and processing) more than doubles the total number of jobs in the industry when also taken into account (BC Stats and BC MAELMD 2010).

4.1.2.3 Forestry

4.1.2.3.1 Economics

Historically, the forest sector has accounted for more than half the value of provincial exports (BC Stats 2006). In 2011, forest products (wood, pulp, and paper) represented 30.5% (\$10 billion) of the total provincial export value, down from more than 60% during the 1980s (BC Stats 2012e). The forest sector accounted for 4.1% of the total provincial economic activity in 2009 (BC MFLNRO 2010).

The economic circumstances and condition of the province's forest industry fluctuates depending on many factors, including global competition, taxes on lumber to the United States (US), changes in commodity prices, the Canada-US exchange rate, capital investments, and returns on capital. In recent years, the industry has faced many challenges, including the downturn in the US housing market, low prices for forest products, and a significant mountain pine beetle epidemic that attacked forests throughout much of the southern and central interior. For example, 2008-2009 provincial forest revenue was \$558 million, down 49% from the previous year (BC MOFR 2010). By 2013-14, the provincial target for forest revenue is \$580 million (BC MFLNRO 2011b).

The forest industry's contribution to provincial GDP—including forestry and logging, wood product manufacturing, and pulp and paper manufacturing—declined from \$9.8 billion (7%) in

2005 to \$6.4 billion (4%) in 2009, but rebounded to \$8.15 billion (5%) in 2011 (BC MFLNRO 2012; BC Stats 2012a). The forestry and logging industry alone decreased from \$3.1 billion⁶ in 2004 (2.3% of total provincial GDP) to \$2.2 billion⁷ in 2009, or 1.5% of total provincial GDP. Forest industry activity has increased more recently to 1.8% of GDP in 2011, or \$2.8 billion in 2011 (BC Stats 2012a).

Total timber harvest volume showed a recovery in 2010 and 2011, mainly driven by a strong demand from China and an increase in lumber prices due to strong demand and weak supply (BC MFLNRO 2012). Approximately 69.2 million m³ of timber was scaled in BC during 2011, a nearly 42% increase from the 48.9 million m³ harvested in 2009 (BC MFLNRO 2011b).

4.1.2.3.2 Employment Areas and Trends

Despite the long-term decline in the industry and the recent economic downturn, the forest sector remains an important employer in many rural communities. For instance, forestry directly supported jobs in over 100 BC communities in 2009 (BC MOFR 2010). The sector employs many people in occupations unique to primary industry, including heavy machinery operators. Other areas of expertise include natural and applied sciences, trades, transportation, and business management.

Forestry and logging directly employed 16,100 people in 2010 and 14,000 in 2011, representing 0.7% and 0.6% of total provincial employment respectively (BC Stats 2010a, 2012c). This is a marked decrease from 24,200 people in 2007 (BC Stats 2012c). Wood processing and manufacturing, which includes the production of lumber, wood, and paper products, is also a significant employer. In 2011, 39,300 people were directly employed in this area, a 2.1% increase from the previous year. By contrast, this represents a 33% decrease from 2007 levels, and is 45% less than its peak in 1989. Employment in these areas is generally confined to the locations of mills and processing plants. If direct and indirect economic activity is included, BC forest employment in 2011 was 53,340 persons and accounted for almost 12% of the provincial goods sector employment (BC MFLNRO 2012).

Average income in forest-based industries in 2010 was \$41,000, 12% higher than the \$36,600 in all industries. It was highest in pulp and paper (\$65,800), followed by wood manufacturing (\$48,000), logging (\$46,000), and nature-based tourism (\$18,600; BC MFLNRO 2010). More recent data were not available at the time of writing.

Direct employment for First Nations in the sector increased 60% between 1981 and 2001. According to the British Columbia Ministry of Forests, Lands and Natural Resource Operations (BC MFLNRO), an increasing number of First Nations also hold timber forestry licences, own forestry companies, and are entering into joint ventures and securing rights to the annual allowable cut (AAC). Over the past two decades, for instance, First Nations-owned companies have increased their timber harvest volume to 10.5% of the AAC (BC MFLNRO 2010). First Nations' increasing interest in forest management has also translated into legislative change.

⁶ chained 2002 dollars

⁷ chained 2002 dollars

Amendments in 2002 allowed forest tenures to be awarded directly to First Nations and 145 timber and/or revenue interim agreements were signed between 2002 and 2008, signifying access to more than 39 million cubic metres of timber and \$230 million in forest revenues (BC MOFR 2006; BC MFLNRO 2010). According to the most recent report on the state of BC's forests, issued in 2010, approximately 20 First Nations currently have or are negotiating Community Forest Agreements in order to manage the recreational, wildlife, watershed and cultural heritage of resources (BC MFLNRO 2010).

4.1.2.3.3 Mountain Pine Beetle

The mountain pine beetle infestation in BC has destroyed approximately 620 million m³ of lodgepole pine in an area four times the size of Vancouver Island (BC MOFR 2010). AACs for many timber supply areas were temporarily increased so that the industry could get maximum value from the affected timber. Between 2000 and 2010, the AAC was increased from approximately 18 million m³ to 88 million m³ per year so that timber could be harvested that would otherwise have been commercially unusable (BC MFLNRO 2010).

In 2010, the BC MFLNRO estimated an AAC of 73 million m³ in 2014, with further decreases over the longer term until 2060, to allow forests to regenerate (BC MFLNRO 2010). This is expected to have long-term implications for direct and indirect employment in the sector.

4.1.2.4 Other Industries

4.1.2.4.1 Agriculture

In 2011, over 26,000 people worked in agriculture, amounting to 1.1% of the province's total employment. Crop and animal production accounted for \$1.1 billion of BC's GDP in 2011 (BC Stats 2012c, 2012a). Agricultural activities occur throughout the province and include vegetable and grain crops, cattle ranching, dairy and poultry, commercial orchards, and vineyards. Heavy agricultural use is largely located in southern BC, including the Okanagan, Fraser Valley, and Kootenays. However, northern regions such as the RDBN and the Peace River Regional District are also important actors (Rescan 2009). Agricultural activity is also present, albeit to a nominal extent, within the southern portion of the RDKS (Hallin 1999).

4.1.2.4.2 Fishing

Fishing, hunting and trapping collectively represented less than 0.1% of total employment in BC in 2011 (BC Stats 2012c). Nevertheless, fishing in particular remains a major economic activity, predominantly for communities around Prince Rupert and northern Vancouver Island. Although fishing is more prominent in northern waters, the industry has centralized over time in Vancouver, Richmond, and Prince Rupert as advances in harvesting, canning, and transportation eliminated the need for facilities to be located close to fishing grounds. Fish hatchery and farming activities have also expanded over the last few decades throughout coastal BC (BC Salmon Farmers Association 2010).

4.1.2.4.3 Tourism

BC's tourism sector grew and outperformed the rest of the economy between 2004 and 2008 (BC Stats 2009f). After a significant downturn in 2009, when the tourism sector shrank for the

first time since 2002, the sector expanded 4.3% in 2010. This increase was slightly higher than the average for all BC industries, making 2010 the best year for tourism sector growth since 2005 (BC Stats 2011c).

Tourism is primarily viewed as a service sector industry; however, tourism often includes goods sector activities such as fishing and hunting. The tourism sector, which also includes food, accommodation, transportation, and retail trade, employs approximately 5.6% of the provincial labour force (127,000 people) with over 4% of provincial GDP attributed to the sector (BC Stats 2011c, 2012c). Tourism-related activity is not evenly distributed throughout the province and is strongly centred in southern BC, with over half of all room revenues generated in the Vancouver, Coast and Mountains regions (Tourism BC 2011).

As a sub-set of tourism, approximately \$116 million of economic activity is generated yearly by the BC guide outfitting industry (GOABC n.d.). More than 2,000 people are directly employed in the industry to serve the needs of over 5,000 non-resident hunters. These hunters typically spend more per day per capita than any other visitor to the province. Guide outfitting further contributes to government revenue through licence and tag fees, surcharges, and royalties amounting to \$2 to 3 million each year, in addition to millions of dollars in other taxes. Between 1981 and 2009, license surcharge dollars from guides, hunters, trappers and anglers have raised over \$100 million in BC (GOABC 2009).

To further promote the industry, the Government of BC developed a Tourism Action Plan which aims to invest in resort and hotel developments, improvements in infrastructure (particularly access infrastructure), and increase direct flights in key Asian and European markets. The Ministry of Tourism, Culture, and the Arts (MTCA; currently named the Ministry of Jobs, Tourism and Skills Training) estimated that 50,000 new employees will need to be recruited for the tourism industry by 2015 to accommodate industry growth targets (BC MTCA 2009).

4.2 Regional Study Area

4.2.1 Overview

The RSA is more remote than most regions of the province and includes the RDKS, as well as Electoral Area A of the RDBN (Figure 3.1-1). The RDKS provides local government services to rural and unincorporated settlements within an area of 100,000km² in northwestern BC. Members include Kitimat, Terrace, Stewart, Hazelton and New Hazelton (RDKS 2012b). Similarly, the RDBN covers almost 78,000 km² and includes eight municipalities, seven Electoral Areas, and 13 Indian Bands (NDIT 2010b). Electoral Area A of the RDBN is included in the RSA and comprises 3,688 km², including Smithers and the rural areas surrounding the municipality.

Communities within the RSA are removed from major population and government centres and are located far apart from one another. Settlements include a number of small, predominantly First Nations communities, most of which are located along Highway 37 and near Highway 16. The larger centres of Smithers and Terrace provide services and supplies to much of the region. Transportation and communication options north of Highway 16 are limited, and long travel distances are required to reach service centres.

4.2.2 Population

The RSA's population in 2011 was 42,752 (Statistics Canada 2012a). The population has generally declined over the past decade or more, largely due to the loss of jobs, particularly in non-Aboriginal communities. Stewart, for instance, has experienced the greatest decrease in size with its population dropping over 42% between 1996 and 2011 (Statistics Canada 2002b, 2012a). The populations of Smithers and Terrace, the RSA's largest centres, have also been declining, albeit at lower rates of 3.9% and 10.1%, respectively.⁸

Overall, the RSA experienced an average drop in population of 13% between 1996 and 2011 (Table 4.2-1), with the rate of decline lessening between 2006 and 2011 (Statistics Canada 2002b; BC Stats 2012g; Statistics Canada 2012a). By contrast, the North Coast Development Region's (NCDR)⁹ 2011 population, which includes Prince Rupert but not Smithers, increased by 57 persons, or approximately 0.1% (ICABC 2012). The reduced rate, and potential reversal, of population loss in the region may be due to the level of economic activity in the RSA over the last five years as well as the anticipated near and mid-term growth due to recent private and government investments in natural resources and utilities. This is discussed in more detail in Section 4.2.3.

Table 4.2-1. Regional Study Area Population (1996 to 2011)

	1996	2001 (% change from previous census)	2006 (% change from previous census)	2011 (% change from previous census)	Aboriginal Identity, 2006 (% of population)
RDKS	43,618	40,876 (-6.3%)	38,476 (-7.0%)	37,361 (-2.9%)	12,275 (32%)
Electoral Area A (RDBN)	5,573	5,696 (+2.2%)	5,290 (-7.1%)	5,391 (+1.9%)	470 (9%)
Total Regional	49,191	46,572 (-5.4%)	43,766 (-6.1%)	42,752 (-2.4%)	12,745 (29.1%)
British Columbia	3,724,500	3,907,738	4,113,487	4,400,055	196,070 (4.8%)

Sources: Statistics Canada (1997, 2002b, 2007b, 2012a); BC Stats (2011a).

Note: Geographic area boundaries for both the RDKS and Electoral Area A of the RDBN changed between 1996 and 2011. In order to facilitate comparison, Statistics Canada adjusted the census population counts as needed.

The proportion of males and females has remained relatively unchanged in the last ten years, with males (51%) slightly outnumbering females (49%) in 2011. Almost 65% of the population is between ages 18 to 64 years, with 23% of the population aged 17 years and under (BC Stats 2011a). The median age ranges from 40.3 to 42.3 and is on par with the provincial median of 41.9 (Statistics Canada 2002b, 2007b, 2012a). Almost 5.2% of the population were visible minorities in 2006 (BC Stats 2011a).

4.2.2.1 Aboriginal Population

Aboriginal peoples have a physical, cultural, and historical presence throughout the RSA. The RSA is further typified by a high proportion of Aboriginal (Treaty Nation and First Nations)

⁸ Both communities, however, saw slight increases in their population between 2006 and 2011, which could indicate a change in the trend. See Section 4.3 for more details.

⁹ The NCDR overlaps to a large degree with the Project's RSA and includes the RDKS and Skeena-Queen Charlotte Regional District. The NCDR includes the City of Prince Rupert but excludes Smithers and BNRD's Electoral Area A.

residents in comparison with the rest of the province. The RSA includes Nisga'a Lands as well as IRs for the Tahltan Nation, Gitxsan Nation, Gitanyow First Nation, Tsimshian First Nations, Haisla Nation and Wet'suwet'en First Nations. Most of the RSA's smaller communities, as well as those located along the north-south corridor of Highway 37 and east-west near Highway 16, are predominantly aboriginal (Figure 3.1-2).

In 2006, over 29% of the RSA's population identified as Aboriginal, including people living both on and off-reserve (Table 4.2-1). A total of 12,745 people, approximately 32% of the RDKS's population and 9% of RDBN's Electoral Area A, identified as aboriginal compared with 4.8% provincially (Statistics Canada 2007b; BC Stats 2010b, 2011a).

In 2006, the cumulative population of the select Aboriginal reserve communities included in the LSA amounted to 5,711, almost 45% of the RSA's overall Aboriginal population (Table 4.2-2; Statistics Canada 2007a; Statistics Canada 2012a). According to the 2011 census, the cumulative population of these communities dropped to 5,052. Aboriginal Affairs and Northern Development Canada (AANDC) population data from July 2012 was generally comparable with the 2011 census, with the exception of the Nisga'a Lands which reported an additional 100 residents (AANDC 2012a).

Notably, a large proportion of the registered population from these Aboriginal groups live off reserve, including elsewhere in the RSA, the province, or further afield. The total number of members of these Aboriginal groups, including both off- and on-reserve, is 15,646 (Table 4.2-2).

In contrast to the overall population decline within the RSA, populations in Aboriginal communities grew at a rate of 1.5% annually between 1994 and 2006 (SNDS 2007a). Since 2006, however, Nisga'a Nation and Gitanyow populations have remained relatively stable, whereas Tahltan and Gitxsan populations have experienced a decline (Statistics Canada 2012a). Table 4.2-2 provides an overview of population figures and recent trends for these Aboriginal groups. An economic overview of the Nisga'a Nation, Tahltan Nation, and Gitanyow First Nation communities is provided in Sections 4.3.1, 4.3.2 and 4.3.5 respectively. Economic information pertaining to the Skii km Lax Ha is included in Section 4.3.6 (Village of Hazelton and District of New Hazelton) as many Skii km Lax Ha members reside in the Hazelton area and do not have their own community.

4.2.3 Economy and Employment

Economic development within the RSA has largely been driven by the area's abundant natural resources. Forestry in particular has been an important contributor, most notably for communities near the Highway 16 corridor (BC MOFR 2010). Mining has also been a strong component, and regional land management plans support sustainable mineral development (BC ILMB 2000, 2004, 2012). However, lack of infrastructure, isolated communities, small populations, long winters, and extensive distances have previously constrained mineral development.

**Table 4.2-2. Regional Study Area Select¹ Aboriginal Population
(2001 to 2011)**

Aboriginal Group	Statistics Canada Census				AANDC
	2001	2006	2011	% Change (2001 – 2011)	2012
<i>Nisga'a Nation</i> Nisga'a Lands ²	1,919	1,919	1,909	-0.5%	2,014
Total membership (On and off Nisga'a Lands)	-	-	-	-	5,904
<i>Tahltan Nation</i> Tahltan communities ³	595	654	427	-28.2	n/a
Total membership (On- and off-reserve)	-	-	-	-	2,487 (est.) ⁶
<i>Gitanyow First Nation</i> Gitanyow Village	369	387	383	+3.8%	382
Total membership (On- and off-reserve)	-	-	-	-	802
<i>Gitxsan Nation⁴</i> Gitxsan communities ⁵	2,422	2,751	2,333	-3.7%	2,299
Total membership (On- and off-reserve)	-	-	-	-	6,453
TOTAL	5,305	5,711	5,052	-4.8%	15,646 (total membership)

Source: Statistics Canada (2002b, 2007b, 2012a); AANDC (2012a).

Notes:

¹ The table includes LSA communities. The RSA includes other First Nation communities not discussed in this report.

² Nisga'a Lands includes four Nisga'a villages: Gitlax't'aamiks (New Aiyansh), Gitwinksihlkw (Canyon City), Laxgalts'ap (Greenville), and Gingolx (Kincolith).

³ The Tahltan Nation is comprised of the Tahltan Indian Band and Iskut First Nation. Tahltan Nation reserve communities include Telegraph Creek (comprised of Telegraph Creek 6 and 6A, and Guhthe Tah 12), Iskut 6 and Dease Lake 9.

⁴ Population numbers for the Gitxsan Nation include members of the Skii km Lax Ha, whom are considered a Gitxsan wilp by the Government of British Columbia as per the Project's Section 11 Order (BC EAO 2009).

⁵ Gitxsan Nation reserve communities include Gitwangak 1, Gitsegukla 1, Gitanmaax 1, Glen Vowell (Sik-e-Dakh 2), and Kispiox 1.

⁶ The Iskut First Nation discontinued providing membership information to AANDC in December 2010. Total membership is estimated based on reported 2012 Tahltan Indian Band membership (1,782) and the Iskut population as last reported in December 2010 (705).

"-" = Data not available.

The RSA is considered one of the least economically diversified regions of the province with an average Diversity Index (DI) of 61.3 (Horne 2009). A DI rating represents the level of economic diversification with a DI of 100 meaning that the community/region is equally dependent on various sectors. Stewart and Hazelton exhibit the lowest levels of economic diversification (Table 4.2-3). As such, communities within the RSA are susceptible to changes in global commodity markets. Stewart is an example of a community that has grown and/or shrunk as a result of trends in the mineral industry (Daum 2010).

Table 4.2-3. Regional Diversity Indices

Region	Diversity Index
Kitimat – Terrace	70
Hazelton	57
Stewart	51
Smithers – Houston	67
Regional average	61.3

Source: Horne (2009).

According to Horne (2009), income sources within the RSA rely prominently on the public sector, with mining and forestry also present. In 2011, the northwest's income assistance dependency rate was the highest of all provincial regions (ICABC 2012).

However, the RSA's economy is in the process of evolving as a result of stronger commodity prices in recent years, the natural resource industry's market diversification into Asia, as well as investment in infrastructure and utilities. There is currently a combined value of roughly \$8.6 billion worth of projects currently permitted or under construction in the RSA, including: the Forest Kerr Hydro Project, Northwest Transmission Line (NTL), Kitimat Aluminum Smelter Expansion, Kitimat Liquid Natural Gas Terminal, and Kitimat to Summit Lake Pipeline (ICABC 2012). Accordingly, it is likely that the DI rating for the RSA, and most notably in Kitimat-Terrace, will be positively affected as a result of major project development, the type and length of employment created once these projects begin operations, and continued regional investment in natural resource development.

4.2.3.1 Employment

Past employment in logging and mining led to the development of most non-Aboriginal communities in the region, with most of the forestry activity occurring south of Bell II (BC MOFR 2010). In recent decades, mining has played a more prominent employment role for the Tahltan Nation, whereas the Nisga'a Nation, and particularly the Gitanyow and Gitksan, have relied more strongly on forestry and logging. These industries remain important employers today, although public administration and tourism have grown in recent years. Tourism activities—including guide outfitting, hunting, fishing, heli-skiing, and backcountry recreation—focus on wilderness opportunities and draw tourists from around the world.

The total RSA active labour force in 2006 was reported at 22,530 people, translating into an average participation rate of 66.4%, slightly higher than the provincial rate of 65.6% (Statistics Canada 2007b). Participation rates ranged from 65% in the RDKS to 76% in Electoral Area A of the RDBN (Table 4.2-4). Participation rates in 2006 amongst males in the northwest was almost 73% compared to 63% for females (BC Stats 2011a).

Table 4.2-4. Regional Study Area Labour Force (2006)

Labour Force (2006)	RSA			
	RDKS	Electoral Area A (RDBN)	Total	BC
Total Population 15+	29,740	4,200	33,940	3,394,910
In labour Force	19,340	3,190	22,530	2,226,380
Participation Rate	65.0%	76.0%	66.4%	65.6%
Employment Rate	55.8%	71.2%	63.5%	61.6%
Unemployment Rate	14.1%	6.3%	10.2%	6.0%

Source: Statistics Canada (2007b).

After a two-year job loss total of 4,400 jobs in 2009 and 2010, employment in 2011 grew by 7.2% in the NCDR,¹⁰ or a total of 2,900 jobs. These jobs were primarily in the services-producing sector, including transportation and warehousing, slightly more than half of which were full-time positions. In 2011, employment in the construction sector expanded by 1,300 workers (Table 4.2-5). By contrast, employment in fishing, forestry, mining, as well as oil and gas declined by 900 jobs in 2011. This loss of jobs in natural resources is difficult to explain in light of the project construction and exploration expenditures in the region. Further, when combined with baby-boomer retirement as well as continued demand for natural resources and additional production, it may lead to a skilled labour shortage in the RSA (ICABC 2012).

Table 4.2-5. Employment, North Coast Development Region (2006 to 2011)

Job Creation (000)	2006	2007	2008	2009	2010	2011	5-year (2006-11)	1-year (2010-11)
Agriculture	1.5	-	-	-	-	-	-1.5	-
Natural resources (forestry, fishing, mining, oil and gas)	3.0	2.8	3.5	2.5	3.3	2.4	-0.6	-0.9
Utilities	-	-	-	-	-	-	-	-
Construction	3.0	2.3	2.6	2.9	2.1	3.4	0.4	1.3
Manufacturing	6.2	7.1	7.0	6.3	5.5	4.8	-1.4	-0.7
Goods Producing Sector	13.8	13.6	13.6	12.4	11.4	11.3	-2.5	-0.1
Services-producing Sector	29.0	28.4	31.2	29.1	29.0	32.0	3.0	3.0
Total employment	42.8	42.00	44.8	41.5	40.4	43.3	0.5	2.9

Source: ICABC (2012).

"-" indicates data suppressed as these industries are estimated to have under 1,500 persons employed, limiting the reliability for job creation statistics to be generated.

The unemployment rate in 2006 was estimated at 14% within the RDKS, and 6.3% for the RDBN Electoral Area A compared to the provincial figure of 6% (Table 4.2-4; Statistics Canada 2007b). Collectively, this represented a total unemployed population within the RSA of approximately

¹⁰ The 2011 Census does not provide employment data specific to the RSA. Recent data that overlap the KSM Project RSA were derived from the NCDR.

2,300 residents (10.2%; BC Stats 2009b). By contrast, in 2011, the NCDR led the province in employment growth (7.2%), with a surge in new business incorporations, and a substantial jump in the value of commercial and residential building permits (ICABC 2012). Last year's unemployment rate declined to 8.6%, though it remains the highest in the province (Table 4.2-6).

Table 4.2-6. Total and Youth Unemployment Rates, North Coast Development Region (2006 to 2011)

Unemployment Rate (%)							
Region	2006	2007	2008	2009	2010	2011	5-year (2006 – 2011)
NRDC	6.8	8.1	7.8	10.6	10.2	8.6	1.8%
British Columbia	4.8	4.3	4.6	7.7	7.6	7.5	2.7%
Youth Unemployment Rate (age 19 to 24 years)							
NRDC	11.8	12.8	12.1	15.1	23.8	8.3	-3.5
British Columbia	6.5	6.1	6.8	11.1	11.3	11.5	5.0

Source: ICABC (2012).

Although current employment data related to gender are unavailable, a large proportion (72%) of the jobs created in 2011 was accessed by youth. This resulted in a notable decline in the rate of youth unemployment, which at 8.3% is both lower than the northwest's general rate of unemployment and also below the provincial average of 11.5% (Table 4.2-6; ICABC 2012).

4.2.3.2 Income

Using a composite index¹¹ of human economic hardship in the 26 Regional Districts in BC, the province in 2011 ranked the RDKS and RDBN as second and eighth worst respectively (BC Stats 2012f). Annual median earnings in 2005 for all residents over 15 years of age, including part-time and seasonal workers in the RDKS and Electoral Area A of the RDBN, were comparable and approximately the same as for the province (Table 4.2-7; Statistics Canada 2007b). Similarly, annual full-time median earnings were either on par with or above the provincial figure.

In comparison, the average family income for the northwest in 2005 was \$68,985, or \$75,957 for couple parent economic families and \$34,596 for female lone parent households. Average wages are likely the result of employment in resource industries, including mining and forestry, which typically pay higher wages than other sectors. The RSA exhibits a large discrepancy between male and female incomes, with males in 2005 reporting almost 40% more than the median income of females (BC Stats 2011a).

¹¹ The composite index is comprised of the proportion of the population age 0 to 64 on Income Assistance (IA), the length of time on IA, the proportion of the labour force receiving Employment Insurance (EI), per capita income, income inequality and net taxes paid.

Table 4.2-7. Regional Study Area Income Characteristics, 2005

Characteristics	RDKS	RDBN Electoral Area A	British Columbia
People 15 years of age and over with income (#)	27,705	4,025	2,392,805
Annual median earnings	\$25,062	\$24,162	\$24,722
Annual full-time median earnings	\$47,395	\$42,509	\$42,230
• Males	\$59,832	\$47,270	\$48,070
• Females	\$36,538	\$33,960	\$36,739
Composition of total income (%)			
• Earnings	77.6%	81.4%	75.1%
• Government transfers	13.6%	9.9%	10.7%
• Other money	8.8%	8.6%	14.2%

Source: Statistics Canada (2007b).

The northwest ranked third highest of the province's 15 college regions in terms of income dependency on the primary sector. In 2005, almost 33% of incomes in the northwest relied on forestry, mining and fishing in 2005 compared to the provincial average of 11% (BC Stats 2011a).

Earnings from employment composed between 77.6% and 81.4% of all income, higher than the provincial rate of 75.1%. The share of total income from government transfers was highest in the RDKS at 13.6% (Statistics Canada 2007b).

4.2.3.3 Economic Sectors and Activity

In 2006, goods sector industries (including primary industries, construction, and manufacturing) accounted for a large proportion of employment in the RSA (31%) compared to the province (21%; Statistics Canada 2007b). Agriculture and other resource-based industries were particularly important in the RDBN's Electoral Area A (21%), while manufacturing was the main industry within the RDKS, employing 16% of its total labour force. Collectively, manufacturing was the main source of employment (15.1% of the total RSA labour force), followed in order of importance by business services, health care and social services, retail trade, and agriculture and other resource-based industries. Table 4.2-8 presents a breakdown of employment by industry within the RSA in 2006.

It is anticipated that figures provided in Table 4.2-8 have changed over the last five years and will continue to change as a result of on-going business and investment activity in the northwest. The investment value in the NCDR, for instance, grew by 17.1% between 2010 and 2011, totalling \$44 billion. Important contributions to this growth were projects currently at the proposal stage (worth \$4 billion) as well as construction activity worth \$1.4 billion (ICABC 2012).

The construction of BC Hydro's NTL, as well as the Forest Kerr Hydroelectric Project, are anticipated to be completed by 2014 and are expected to stimulate additional investment and project development growth in the region. The continued expansion of the Prince Rupert Port facilities will also lead to increased regional trading activity. In total, 50 capital projects were in the proposal stage last year in the NCDR, primarily in mining, hydro-electric power, wind, wood waste and infrastructure development (ICABC 2012). Information pertaining to some of these projects is summarized in the following sections.

Table 4.2-8. Regional Study Area Labour Force by Industry (2006)

Industry	RSA			
	RDKS	Electoral Area A	Total	BC
Total experienced labour force over 15	19,340	3,190	22,530	2,193,115
Agriculture and other resource-based industries	8.0%	20.9%	9.8%	4.9%
Construction	6.1%	8.1%	6.4%	7.6%
Manufacturing	16.0%	9.3%	15.1%	8.6%
Wholesale trade	1.7%	1.7%	1.7%	4.2%
Retail trade	10.2%	9.2%	10.1%	11.4%
Finance and real estate	3.0%	3.2%	3.0%	6.2%
Health care and social services	11.2%	9.5%	10.9%	9.7%
Educational services	9.3%	7.0%	9.0%	7.0%
Business services	13.2%	12.2%	13.0%	19.9%
Other services	21.4%	18.8%	21.0%	20.6%

Note: Numbers may not sum due to rounding errors at source.

Source: Statistics Canada (2007b).

New business incorporations in the NCDR jumped from 23.7% (from 76 to 94 between 2010 to 2011), compared to 1.8% provincially, the highest in the province (ICABC 2012). In contrast, the region has experienced four consecutive years of business establishment loss (-3.2%), with a decline of 58 business establishments (-1.7%) between 2010 and 2011. Most losses occurred in forestry and fishing industries. There were a total of 3,301 business establishments in the NCDR in 2011.

Residents in Nisga'a and First Nation communities are also involved in resource activities (including forestry and logging, mining and mineral exploration), as well as construction and tourism. Public administration is a major employer within these communities. Aboriginal residents also pursue a wide range of sustenance activities (including hunting and fishing) that contribute economically, socially and culturally to their families and communities (BC ILMB 2004).

4.2.4 Mining

The RSA has historically relied on primary resource industries, including mining and forestry, for economic and employment opportunities. Until recently, mining supplied an estimated 30% of jobs within the communities along Highway 37 (Bridges and Robinson 2005). The larger population centres of Smithers and Terrace have also provided the mining industry with an available labour force as well as a service and supplies base. Mining continues to be an important source of employment, albeit primarily in mineral exploration over the last several years (BC MEMNG 2012b).

There is one mine, Huckleberry, currently operating in the region. It has recently extended its mine life from 2014 to 2021 (Imperial Metals Corp. 2012b). The Eskay Creek and Kemess South mines, both important regional employers, closed in 2008 and 2010, respectively (BC MEMNG and BC MFLNRO 2012; MABC 2012). However, mineral exploration in the RSA has shown substantial growth in recent years, reflecting the trend of global mineral markets. The new owner of the Kemess mine property, AuRico Gold Inc., is currently exploring the Kemess Underground Project,

approximately 5.5 km north of the past-producing mine (AuRico Gold Inc. 2012). A total of \$220 million was spent in 2011 in northwestern BC on mineral exploration (BC MEMNG 2012b).

Hundreds of potential projects are being examined for various resources. Understanding the region's history with mining and industrial development is important to understanding current baseline conditions and community relationships with the sector. The following section describes past, current, and proposed mine sites in the region (see Figures 3.1-1 and 3.1-2). A number of small-scale operators, including jade and placer gold operations, are also present.

4.2.4.1 Past Developments

4.2.4.1.1 Cassiar

The Cassiar asbestos mine was located 4.5 km from the old Cassiar town site, near Good Hope Lake. Although located outside the RSA, the mine was a significant economic contributor to northwest BC for several decades. It closed in 1992 after 46 years of operations. The mine included a town of nearly 2,000 residents that was abandoned and dismantled after the mine closed (BC ILMB 2004). In 1999, the mine site was reopened briefly to reprocess tailings to extract asbestos fibre, but this was also halted after a fire the same year. Public access to the town is no longer available. Cassiar is often cited as an example of the 'boom-and-bust' cycle and the ghost town phenomenon, although the town was only built to last for the duration of the mine.

More recent exploration activity has been underway at the old Cassiar mine site. Columbia Yukon Explorations Inc. has acquired exploration rights for the Storie molybdenum deposit at this location (BC MEMPR 2008; Columbia Yukon Explorations Inc. 2008). High-quality jade is also extracted from the waste rock at the Cassiar mine site by Cassiar Jade Contracting Ltd. (BC MEMNG and BC MFLNRO 2012).

4.2.4.1.2 Golden Bear

The Golden Bear mine, owned by Wheaton River Minerals, was one of the first heap-leach gold mines in Canada. Located 150 km west of Dease Lake, Golden Bear operated seasonally from 1990 to 1993 and 1997 to 2001. Production was suspended in 1994 when the main deposit was depleted. The Golden Bear mine employed an average of 70 people per year, although up to 120 individuals were reported on-site in 2000. A large proportion of employees were members of the Tahltan Nation from Dease Lake, Telegraph Creek, and Iskut (InfoMine 2008).

4.2.4.1.3 Snip

Homestake Mining Company's Snip gold-silver mine, north of Stewart, operated from 1991 to 1999 and closed when reserves were depleted. Reclamation achievements at the Snip site have been recognized as "exceptional" by the TRCR, and were awarded a *Metal Mining Citation* in 2003. The Snip mine employed approximately 130 workers (InfoMine n.d.).

4.2.4.1.4 Silbak Premier and Granduc

The Silbak Premier and Granduc mines shaped the history of Stewart, BC (and Hyder, Alaska), providing the economic base for the community in the early 1900s. The Premier Mine (gold, silver) began production in 1919, and employed over 800 people at its peak. It was one of the

richest gold mines in the world, and paid for its capital cost within the first two years of production. The mine closed in 1953 after its resources were exhausted, although it was temporarily reactivated in 1989 by Westmin Resources. The Premier mill has also been used to process ore from other mines in the region (MEMPR 2007; StewartBC.com 2011).

The Granduc copper mine began production under Granduc Mines Ltd. in 1971, with the mining of an ore body located underneath the Leduc Glacier. In 1979, the mine was acquired by Esso Minerals Canada. Operations ceased in 1984. The Granduc site was reactivated for exploration by Bell Resources Corp in 2004 with drilling activities taking place from 2005 to 2008 (BC MEMPR 2008; Bell Resources Inc. 2008). Bell Resources is now under a binding Letter of Intent to option the Granduc property to Castle Resources Inc. In 2010, a two-year, two phase exploration program was recommended (McGuigan and Harrison 2010). In 2011, the refurbishing of a 17-km long tide tunnel was nearing completion, connecting the Granduc mine to the deep sea terminal of Stewart (BC MEMNG and BC MFLNRO 2012).

4.2.4.1.5 Eskay Creek

Barrick Gold Corporation's Eskay Creek underground gold-silver mine was the fifth-largest silver producer in the world, and one of the richest in terms of value per tonne of ore. Operations began in November 1994. The mine closed in April 2008 after 14 years of operation and is now being reclaimed (Barrick 2010).

About 350 people worked for the mine for most of its life, although the workforce was scaled back in the last two years as the mine moved towards closure. Total employment in 2007 was 183 persons, including Tahltan members from Iskut, Telegraph Creek, and Dease Lake (Barrick 2010). Residents of Smithers, Terrace, and Hazelton were also employed at the mine.

New Eskay Creek, a 3,688 acre property directly adjacent to the old Eskay Creek mine, is owned by North Bay Resources Inc. The company's website indicates they intend to use some of the former old mine's infrastructure for use in future operation (North Bay Resources Inc. n.d.).

4.2.4.1.6 Kemess South

The Kemess South gold-copper porphyry development, owned by Northgate Minerals Corporation, included an open-pit mine and a mill, which processed 52,000 tonnes of ore per day. Kemess South concentrate was sold to Xstrata PLC and was transported by rail to Rouyn-Noranda, Quebec for smelting (Northgate Minerals Corp. 2008). The Kemess South mine operated from May 1998 until the end of 2010. It employed 400 people in 2008, including approximately 70 Aboriginal employees.

AuRico Gold Inc., is currently exploring the Kemess Underground Project, approximately 5.5 km north of the former mine. The envisaged operation would leverage the existing infrastructure at Kemess South, currently on care and maintenance. It is expected to add 12 years of mine life to the Kemess property. A feasibility study is expected to be completed in late 2012 (AuRico Gold Inc. 2012).

4.2.4.2 Current Developments

4.2.4.2.1 *Huckleberry*

The Huckleberry open-pit copper-molybdenum mine is co-owned by Imperial Metals and the Japan Group and located 123 km southwest of Houston, BC. Operations began in 1997, with current operations averaging 16,000 tonnes of ore per day. Copper production in 2011 was 42.8 million pounds. Mining was projected to end in 2014, but the mine life has been recently extended to 2021 (Imperial Metals Corp. 2012b). Exploration for additional reserves is ongoing.

Copper concentrate is trucked to the port of Stewart and shipped to refineries and smelters in Japan. Molybdenum concentrate is trucked to Vancouver for shipment to Europe (BC MEMPR 2010). The mine employed approximately 260 people in 2009 (BC MEMPR 2010). Most workers (80%) live in the Bulkley Valley, including Houston, Smithers, Telkwa, Granisle, and Burns Lake (MREPBC 2008).

4.2.4.2.2 *Red Chris*

The Red Chris project, 100% owned by Imperial Metals Corp, is located 18 km southeast of Iskut, near the junction of Highway 37 and Ealue Lake Road. At a production rate of 30,000 tpd, the mine is expected to have a 28-year life. Ore concentrate will be trucked to the Port of Stewart, along Highway 37/37A, and concentrate will be shipped to smelters overseas (Imperial Metals Corp. 2012a). The project has received approvals associated with the federal and provincial environmental assessment process and the project is seeking operating permits. . There will be about 500 people employed during construction. The operational phase is expected to start following the completion of the NTL and the mine will employ 300 salaried and contract personnel (Imperial Metals Corp. 2012a).

4.2.4.2.3 *Northwest Transmission Line*

BC Hydro's NTL project involves the construction of a 335 km 287 kV transmission line connecting the Skeena Substation, near Terrace, to a new substation near Bob Quinn Lake (BC Hydro 2012a). Although not a mining project, the purpose of the NTL project is to supply anticipated increases in demand for electrical power, particularly in the mining sector, in the RSA. The BC EAO granted an EA certificate for the NTL on February 23, 2011, with federal EA approval for the project issued on May 5, 2011 (CEA Agency 2011). It is currently under construction with completion anticipated in 2014.

4.2.4.3 Proposed Developments

According to the provincial government, the Skeena district of northwestern BC, which overlaps the RSA as well as the Stikine Region and areas south of the RDKS, had 89 active major exploration projects in 2011 (BC MEMNG 2012b). A total of \$220 million was spent in 2011 on mineral exploration in the region. The projects included below focused on projects currently in the provincial EA process, with the exception of the Galore Creek project.

4.2.4.3.1 Galore Creek

The proposed Galore Creek copper-gold, open pit mine is located 65 km south of Telegraph Creek and 110 km southwest of Iskut. The project received an EA certificate in March 2007, and construction began in June 2007. Construction was suspended in November 2007 and remains on hold pending a review of the mine design and cost estimates (ICABC 2012). Once developed, the mine life is estimated to be 18 years (NovaGold 2012).

The prefeasibility study released in 2011 incorporates a mining and operating facility processing on average 84,000 tonnes of ore per day, and is forecast to produce 6.2 billion pounds of copper, 4.0 million ounces of gold and 65.8 million ounces of silver (NovaGold 2012). An 87-km access road and power line will be constructed westward from Highway 37 to the mine. Power for the project will be provided by BC Hydro's NTL (NovaGold 2012).

NovaGold expects to employ approximately 550 persons during production, excluding contractors. It is estimated that 50% of these positions will require qualifications that will not be met locally, while the remainder could be filled by the local labour force where available. An additional 170 persons would be employed in mill operations and various administrative positions (NovaGold 2010).

4.2.4.3.2 Kutcho

Capstone Mining Corp. proposes to develop a copper-zinc open pit mine approximately 100 km east of Dease Lake. The Kutcho project is currently in the Pre-application phase of the EA process. The prefeasibility study report released in 2011 states that the Kutcho Project has an expected mine life of 12 years and an average production of 2,500 tpd, producing separate copper and zinc concentrates (Capstone Mining Corp. 2011).

4.2.4.3.3 Schaft Creek

Copper Fox Metals Inc. proposes to develop the Schaft Creek copper-gold-molybdenum-silver mine located approximately 60 km southwest of Telegraph Creek. Three Tahltan communities, Telegraph Creek, Dease Lake 9, and Iskut, are within 125 km of the property. Copper Fox have signed agreements with the Tahltan Nation, including commitments regarding contracting and sub-contracting opportunities, as well as employment and training opportunities for members of the Tahltan Nation (Copper Fox Metals Inc. 2012). The Schaft Creek project has been in the Pre-application phase of the EA process since 2006 (BC EAO 2012).

The open pit mine would produce 120,000 tonnes of ore per day (AMEC 2011) over 23 years (Samuel Engineering Inc. 2010). Metal concentrate would be trucked to Stewart for shipment. Estimates indicated that the project would employ approximately 750 people at the peak of operations, with approximately 4,000 person-years of employment over the life of the project (Copper Fox Metals Inc. 2007a, 2007b).

4.2.4.3.4 Arctos Anthracite (formerly Mount Klappan)

Fortune Minerals Ltd./Posco Canada Ltd. proposes to develop the Arctos anthracite coal mine at Mount Klappan, along the abandoned BC Rail grade approximately 60 km southeast of Iskut. Arctos is the only near-term anthracite development in the western world and it plans to sell

metallurgical coal products to steel producers overseas (Fortune Minerals Limited n.d.). The project proposes to mine 3.0 million tonnes of coal annually and use the Dease Lake Line railway to ship coal to the Ridley Island Coal Terminal in Prince Rupert (Marston Canada Ltd. 2011). The mine is predicted to have a mine life of at least 20 years. The Arctos project is currently in the Pre-application phase of the EA process (BC EAO 2012).

4.2.4.3.5 Kitsault

Avanti Kitsault Mine Ltd. is a redevelopment and operation of a molybdenum mine that operated for a short period during the late 70s and early 80s at Kitsault near Alice Arm north of the Nass Valley and 140 km northeast of Prince Rupert, BC. Currently in the Application Review Stage of BC's EA process, the mine will be an open pit truck and shovel operation. The process plant would have a throughput of 40,000 tpd of ore. The proposed mine would employ a construction workforce of up to 700 workers over two years and an operations workforce of approximately 300 people over the 16-year operating life of the mine. The mine would have on site accommodation for all construction and operations workers, with workers transported by bus to communities in the region (Avanti 2012).

4.2.5 Coal-bed Gas, Hydro and Infrastructure

4.2.5.1 Proposed and Under Construction

The following section includes coal-bed methane, hydro-electric and infrastructure projects, both proposed and under construction, found within the RSA.

4.2.5.1.1 Coal-bed Methane

In 2004, Shell Canada Limited obtained a petroleum and natural gas tenure from the provincial government to explore coal-bed methane potential in the Mount Klappan area. The province estimates that the Klappan coal deposit could contain as much as 8.1 trillion cubic feet (230 km³) of coalbed methane gas (Ryan 2003). In 2004, Shell conducted limited fieldwork by drilling three exploratory wells. Exploration continued in the Mount Klappan area until 2008, when the provincial government placed a two-year moratorium on future exploration work, and required that Shell engage local communities and individuals who voiced reservations about the project (Simpson 2008). In December 2012, Shell Canada formally relinquished its tenures and withdrew plans to explore for natural gas in the area (Province of BC 2012).

4.2.5.1.2 Forest Kerr and McLymont Creek Hydroelectric Projects

The Forest Kerr and McLymont Creek projects are both owned by AltaGas. Forest Kerr is located within the RSA on the Iskut River north of the former Eskay Creek mine site and southwest of Bob Quinn Lake. The run-of-river project will have an installed capacity of 195 MW and will deliver power to the NTL and industrial developments in the area (NDIT 2012a). The Forest Kerr project received its EA certificate in 2003 and received a one-time extension in December 2008 (BC EAO 2012). Construction of the approximately \$700 million project began in 2011, is anticipated to last four years, and create up to 400 jobs. AltaGas signed a 60-year Electricity Purchase Agreement with BC Hydro to deliver power to the NTL (NovaGold 2011).

The McLymont Creek Project, a run-of-river hydroelectric facility, has a targeted capacity of 66 MW and will deliver power via the Forrest Kerr transmission system (AltaGas 2012). The project received its EA certificate from the BC EAO in May 2012 and it is anticipated to be in operation in late 2015 (BC EAO 2012). Additionally, AltaGas is proposing to develop the Volcano Creek Project with a 16MW output capacity and linked to the same system.

4.2.5.1.3 Treaty Creek Hydro Project

The Treaty Creek hydro project is part of a 3-site power cluster of run-of-river hydro projects which will share a 138 kV transmission line proposed to connect to BC Hydro's NTL. Located approximately 66 km northeast of Stewart in the Treaty Creek drainage, the Treaty Creek project would be adjacent to the KSM Project's Treaty Creek Access Road. The 13.5 MW project, proposed by Northern Hydro Limited (NHL), will be developed in tandem with NHL's Todedada Creek and Un-Named A Projects. The project consists of an intake, weir, penstock, powerhouse and tailrace, transmission line, access roads, and lay down area (NHL n.d.). NHL has applied for a water licence for the project and had not entered the EA process as at December 2012.

4.2.5.1.4 Long Lake Hydro Project

The Long Lake Hydro project is a joint venture project between Regional Power and Premier Power Corp. The estimated \$90 to \$100 million project was awarded an energy purchase agreement in 2010 by BC Hydro. Located near the community of Stewart, construction began in July 2010, and it is anticipated to employ up to 160 people at its peak. Construction is scheduled to be completed by summer 2013. The project will have an installed capacity of 31 MW, and power will be distributed via a new 10 km 138 kV transmission line which will connect to the BC Hydro grid (NDIT 2012b; Regional Power 2012).

4.2.5.1.5 Kitimat Aluminum Smelter Expansion

The \$3.3 billion modernization of Kitimat's Aluminum Smelter, owned and operated by Rio-Tinto Alcan, was formally approved in 2011 and began construction in 2012 (Marowits 2011; Rio Tinto Alcan 2012). Modernization of the 57-year old smelter aims to double its capacity while reducing greenhouse gases. Construction is anticipated to create 2,500 jobs over a two-year period, as well as maintain 1,000 jobs during operations.

4.2.5.1.6 Kitimat Liquid Natural Gas Terminal

Kitimat Liquid Natural Gas, co-owned by Apache Canada Ltd. and Chevron Canada Limited, proposes to build a liquefaction plant and marine terminal in association with the Pacific Trail Pipeline (District of Kitimat 2012; Kitimat LNG 2012). Proposed plant capacity is 700 million cubic feet of natural gas per day. A National Energy Board export licence was issued in October 2011. Construction to date has been limited to upgrades of specific forest service roads (Kitimat LNG 2012). The former Eurocan mill site will be developed as a project lay down and construction camp. Final engineering studies are anticipated by year end. With capital costs nearing \$3 billion, the project is anticipated to be a significant contributor to the regional economy (ICABC 2012).

4.2.5.1.7 Pacific Trail Pipeline

The \$1.3 billion Pacific Trail Pipeline will run approximately 463 km between the North America tie-in near Summit Lake in north-central BC and the KLNG terminal (District of Kitimat 2012). The pipeline will transport residential-grade natural gas from Western Canada to Asian markets. Clearing and logging of the route was anticipated to begin in 2012, with construction lasting over several years. The BC EAO granted an EA certificate in 2008, which it amended in 2012 to accommodate the pipeline’s increased diameter (Pacific Trail Pipelines 2012).

4.2.6 Forestry

4.2.6.1 Economic Context

Forestry data unique to the RSA is unavailable: the provincial government aggregates the information into the North Coast and Nechako Development Region¹². In this region, 1,500 people were employed in 2011 in forestry (logging and support) activities (BC Stats 2012d). Employment in the industry has decreased 60% since a recent peak of 3,800 in 2000. Employment decreases began in the sector due to market pressures and trade disputes with the U.S. Companies reduced their non-skilled labour force in order to remain in operation and competitive. As lay-offs ensued, communities could no longer rely on the forestry industry to provide employment to large numbers of mill workers (BC MFLNRO 2010). In conjunction with the provincial trend, total timber harvest volume showed a recovery in 2010 and 2011, however large employment numbers have not returned due to the loss of wood processing and manufacturing facilities.

4.2.6.2 Forest Vulnerability Index

Economic dependency on the forestry industry varies throughout the northwest. The BC government uses a Forest Vulnerability Index (FVI), ranging from zero to 100, which combines communities’ economic diversity with dependence on the forestry industry. A high FVI value implies that if forestry activity declines the area will experience greater economic difficulties. With respect to the RSA, the combined average FVI value is 28.8.

Table 4.2-9 shows that the Smithers-Houston region, followed by Hazelton (which includes the Skii km Lax Ha and Gitxsan communities), depends most heavily on forestry. Kitimat-Terrace relies on forestry to a lesser degree, while Stewart has the lowest reliance on forestry.

Table 4.2-9. Regional Forest Vulnerability Indices, 2006

Region	Forest Vulnerability Index
Stewart	7
Kitimat – Terrace	20
Hazelton	38
Smithers – Houston	50
Regional average	28.8

Source: BC Stats (2009e).

¹² The North Coast and Nechako Development Region includes the RDKS, the RDBN, Stikine Region and the Skeena Queen Charlotte Regional District. Data from this region overlaps and extends beyond the KSM Project’s economic baseline RSA.

4.2.6.3 Forest Industry Challenges

Forestry in the northwest has been declining until recently, especially over the last decade. A combination of high operating costs with a low-value timber profile resulted in repeated economic failure in BC's northwest (City of Terrace Forestry Task Force 2009). While some of the forest industry's problems are province-wide (e.g., high operating costs, recent issues surrounding the U.S. softwood quota, the global recession, etc.), other problems are specific to the region. For example, in the northwest the main challenge is the wood: 50 to 65% of the timber is lower-valued pulp wood (City of Terrace Forestry Task Force 2009). In contrast, the mountain pine beetle, which attacks lodgepole pine, has not impacted the northwest, as the region's trees are mostly hemlock, balsam, spruce, and cedar (BC MOFR 2007).

The implications of the industry's economic demise have resulted in business closures and extensive job losses that have changed the population and demographics of the RSA over the last 20 years. The region was previously home to nine sawmills, two operating pulp mills, and a number of remanufacturing plants. In 2000, there was a significant loss of direct and indirect jobs when Skeena Cellulose, the largest employer in the region, closed (City of Terrace Forestry Task Force 2009). In 2010, West Fraser closed their Eurocan pulp mill based in Kitimat, resulting in the loss of 500 direct jobs (West Fraser Timber Co. Ltd. 2009). Pacific Inland Resources, located in Smithers and owned by West Fraser, is the only remaining lumber mill within the RSA (West Fraser Timber Co. Ltd. 2012).

The BC Forestry Revitalization Trust, established in 2003, supports unemployed workers and contractors to transition to other employment and a more diversified forest economy. The fund, which was increased in 2005, totals \$125 million (BCFRT 2007). As of December 2007, \$100 million had been paid out (BC MOFR 2008). Current data on the status of the fund are unavailable.

4.2.6.4 Revitalization

The City of Terrace Forestry Task Force in 2009 noted that policy efforts should focus on researching alternatives for pulp log uses and creating a strategy to market the northwest's dominant "fibre logs" in order to increase their value (City of Terrace Forestry Task Force 2009). Other regional institutions, such as the Skeena-Nass Center for Innovation in Resource Economics Society, are focusing their strategies on facilitating the creation of a new natural resource economy in the northwest (SNCIRE 2012).

Since 2010, logging activities have begun to pick-up in the RSA and the province due to increasing demand from China, although it remains far below historic levels (P. Weeber and B. Faasnidge, pers. comm.). Timber (raw logs) from the RDKS and Bulkley Valley is being trucked to the coast for overseas shipment in containers. Further, with available regional timber not committed to local manufacturing plants, a coalition of tenure holders recently formed the Northwest BC Forest Coalition to spearhead interest with alternative uses of wood such as bio-energy, bio-coal and pellets, and new manufactured products (Weeber and Faasnidge, pers. comm.; NWBC Forest Coalition 2011).

4.2.7 Tourism

Tourism data for the RSA is unavailable. The provincial government aggregates the information into the North Coast Development Region. This region accounts for 12% of the provincial land area yet comprises only 1% of the province’s population (Stroomer 2010). As such, the region offers tourism opportunities that reflect the remote and natural wilderness of the area. Key tourist activities include:

- Aboriginal arts and culture;
- fresh and saltwater fishing;
- canoeing, kayaking, white water rafting;
- skiing, snowmobiling, and other snow sports; and
- cruise ship tours.

In 2010, there were a total of 17,943 tourism-related establishments in British Columbia, approximately 10% of all business establishments in the province. Nearly 300 of those tourism-related establishments were located in the North Coast (Lomas 2011). The North Coast Development Region draws visitors to the area with a variety of outdoor and nature-based activities including guided fishing tours, camping, diving and whale-watching. Travellers interested in the region’s cultural attractions can also explore First Nations ceremonies, art and history (Stroomer 2010).

There were over 2,000 nature-based tourism businesses in BC in 2005, the last year for which this information was released (Tourism BC 2005). Out of these, 18% were based in, or had operations in, northern BC. In 2006, the region boasted 47% of the province’s guide outfitting operations, 29% of the freshwater fishing lodges and 18% of land-based summer businesses (cycling tours, all-terrain vehicle experiences, bird-watching, horseback riding, etc.). A breakdown of regional nature-based tourism businesses as compared to the province can be found in Table 4.2-10.

Table 4.2-10. Commercial Nature-based Tourism Businesses – Northern British Columbia, 2005

Business	Northern BC (# of Businesses)	BC Total (# of Businesses)	% of BC Total
<i>Lodge-based</i>			
Destination Lodges	18	95	19.2
Guest Ranches	11	71	16.0
Guide Outfitters	111	236	47.0
<i>Freshwater (FW)-based</i>			
FW Fishing Lodges	42	145	29.0
FW Fishing (No Lodge)	29	116	25.0
River Rafting	15	79	19.0
FW Kayaking/Canoeing	7	40	18.0

(continued)

Table 4.2-10. Commercial Nature-based Tourism Businesses – Northern British Columbia, 2005 (completed)

Business	Northern BC (# of Businesses)	BC Total (# of Businesses)	% of BC Total
<i>Marine/Saltwater (SW)-based</i>			
SW Fishing Lodges	7	132	5.0
SW Fishing (No Lodge)	9	71	13.0
SW (Ocean) Kayaking	10	137	7.0
Boat Charters (most SW)	48	298	16.0
Scuba Diving	0	54	0.0
Marine Wildlife Viewing	2	41	5.0
Sail Cruising	9	85	10.0
Pocket Cruising	0	10	0.0
<i>Land-based</i>			
Land-based Summer*	73	407	18.0
Mountain Biking	2	44	5.0
Land-based Winter**	5	100	5.0
Heli-Skiing	3	32	9.0
Total	401	2,193	18.3

Source: Tourism BC (2005).

*Includes cycling tours (other than mountain biking), ATV experiences, bird-watching, nature-based cultural tourism, education, hang-gliding/para-sailing, hiking/backpacking, horseback riding, llama trekking, rock-climbing, day sailing, and wildlife or nature observation, including photography.

**Includes backcountry ski touring, cross country skiing, winter education, snowmobiling and cat skiing/snowboarding.

4.2.7.1 Cruise Ships

In 2011, 19 cruise ships disembarked and 20 cruise ships embarked at the Port of Prince Rupert. There was a 32% decrease in the amount of disembarkations from 2010, but a 300% increase in embarkations. There were a total of 54,428 people in transit on cruise ships, a 2% decrease from the previous year (POPR 2012), and a 47.5% drop from its peak in 2008 (InterVISTAS Consulting Inc. 2010). In general, there were fewer stops and shorter port calls than prior years. In 2008, the cruise sector was responsible for 114 FTEs of employment, \$5.37 million in wage income, and contributed an estimated \$19.33 million to the region (InterVISTAS Consulting Inc. 2010). Prince Rupert was the entry point for the greatest numbers of overseas visitors to the region (55.6%) as well as the greatest percentage of U.S. visitors (77.7%) to the region (Tourism BC 2010).

4.2.7.2 Motel Revenues

Motels are the most prevalent accommodation product in the region, making up 29% of all accommodation properties in 2009 (Tourism BC 2010). Of the \$27 million in revenue generated by accommodations on the North Coast, motels accounted for nearly \$7 million (or 26%) of that revenue (BC Stats 2012h). Room revenues increased almost 6.2% from 2007 to 2008, bringing in a total of \$149.8 million (Tourism BC 2010).

4.2.7.3 Visitor Centres

Visitor centres in all regions experienced lower usage rates and experienced an overall decline of 5.8% from 2007 to 2008. A total of 119,214 visitor parties visited the visitor centres’ in the region in 2008, however this was 0.3% less than in 2007. Visitor centres’ visitation rates have been declining on average 1.0% annually since 2000 (Tourism BC 2010).

4.3 Local Study Area Communities

The following section considers the economic profile and characteristics of the Aboriginal and non-Aboriginal communities in the LSA. The economic profile includes qualitative and quantitative descriptions of a community’s population, economy, business, income and employment. Depending on the availability of data, the profile includes both current information and past trends.

4.3.1 Nisga’a Nation and Communities

The Nisga’a Final Agreement is BC’s first modern-day treaty. It was signed by the Nisga’a Nation and the governments of Canada and British Columbia and came into effect in May 2000 (NLG 2008; AANDC 2010a). Nisga’a Lisims Government has jurisdiction over Nisga’a Lands which includes the four Nisga’a villages. The information provided below is largely based on secondary sources and desk-based research supplemented by primary community-based research carried out from September 2011 to March 2012.

4.3.1.1 Population

A large proportion of Nisga’a citizens reside in four villages within Nisga’a Lands, along the Nass River, located approximately 230 km south of the proposed Project: Gitlaxt’aamiks (New Aiyansh), Gitwinksihlkw (Canyon City), Laxgalts’ap (Greenville), and Gingolx (Kincolith). These communities are included in the LSA (Figure 4.3-1). Nisga’a citizens also reside in Terrace, Prince Rupert, Vancouver and elsewhere.

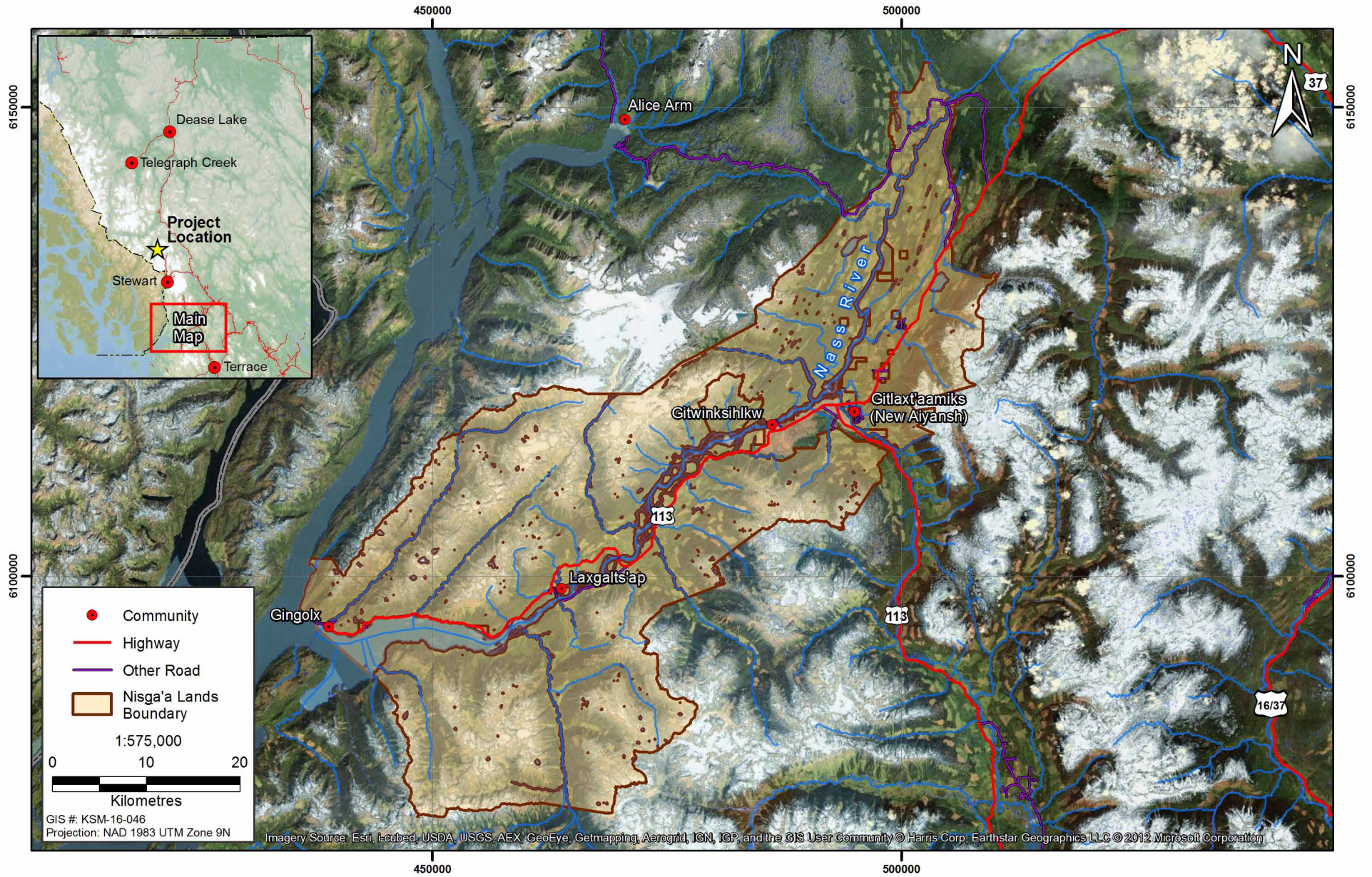
The Nisga’a Nation has approximately 5,900 members over 2,000 of whom reside in one of the four Nisga’a villages (Statistics Canada 2007b; AANDC 2012c). Table 4.3-1 summarizes the populations of the four Nisga’a villages in comparison to those living outside of the Nisga’a Lands.

Table 4.3-1. Nisga’a Nation Populations: July 2012¹

Community	Community Population 2012	Population on other Indian reserves	Population outside of Nisga’a Lands	Total Registered Nisga’a Population
Gitlaxt’aamiks	858	51	906	1,815
Gitwinksihlkw	182	28	182	392
Laxgalts’ap	566	54	1,110	1,731
Gingolx	408	68	1,491	1,966
TOTAL	2,014	201	3,689	5,904

Source: Statistics Canada (2002b); AANDC (2012a).

¹ AANDC population data is provided by an administrator from each Nisga’a community on a monthly basis and is based on total membership on and outside of villages.



GIS # KSM-16-046
 Projection: NAD 1983 UTM Zone 9N
 Imagery Source: Esri, Intergraph, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community © Harris Corp, Earthstar Geographics LLC © 2012 Microsoft Corporation

Figure 4.3-1

Figure 4.3-1

By comparison, figures reported from the 2011 census are slightly below AANDC (2012a) figures. For instance, Statistics Canada reports 1,728 residents in the four Nisga’a villages and 1,909 residents on Nisga’a Lands (Statistics Canada 2012a). Table 4.3-2 compares the total and individual village populations between 1996 and 2011.

Table 4.3 2. Nisga’a Villages and Nisga’a Lands Population: Statistics Canada Census (1996 to 2011)

Community	1996¹	2001	2006	2011	% Change (1996 – 2001)
Gitlaxt’aamiks	739	716	806 ²	758	+2.6%
Gitwinksihlkw	231	212	201 ²	184	-20.3%
Laxgalts’ap	598	467	474 ²	378	-36.8%
Gingolx	318	339	341 ²	408	+28.3%
Total	1,886	1,734	1,822	1,728	-8.4%
Total Nisga’a Lands	n/a	1,919	1,919	1,909	-

Source: Statistics Canada (2002a, 2007a, 2012a); AANDC (2012a).

Notes:

¹ Statistics Canada notes an adjusted 1996 census data as needed to take into account boundary change that occurred between 1996 and 2001.

² Statistics Canada has adjusted 2006 census data as needed to take into account boundary change that occurred between 2006 and 2011.

n/a = data unavailable.

Nisga’a village populations have fluctuated from 1996 to 2011, although the collective population has decreased by over 8% since 1996 (or 5.2% since 2006). Two of the four communities have seen their populations decrease by between 20% and 37% since 1996 (Statistics Canada 2002b; AANDC 2012c; Statistics Canada 2012a). Gitlaxt’aamiks and Gingolx have both seen an increase in their population relative to 1996, although since 2006 Gitlaxt’aamiks’ population has declined by 6% to a total of 758 residents. Notably, Gingolx’s population increased over 28% relative to 1996 figures, which may partly be attributed to the completion in 2003 of a 28 km road connecting the community year-round for the first time to the other three Nisga’a villages (Village of Gingolx 2012). When considering the total population on Nisga’a Lands, however, the population has been stable between 2001 and 2011.

The median age of residents on Nisga’a Lands in 2011 was 35.6 years, an increase of almost three years since 2006 (Statistics Canada 2007a, 2012a). Approximately 55% of residents were male and 45% female.

4.3.1.2 Economic Base

The public sector provides the majority of employment in Nisga’a Lands. Nisga’a Nation business interests are represented by the Nisga’a Commercial Group, which was created by Nisga’a Lisims Government (NLG) and is headed by an independent board and CEO. The Nisga’a Commercial Group’s tourism arm promotes tourism in the surrounding wilderness area through a culture and eco-adventure-based operation known as Lisims Backcountry Adventures Inc. (Deloitte 2011). Other Nisga’a companies include: Nisga’a Fisheries Ltd., which sells salmon to local and other markets; Lisims Forest Resources, which sells both timber and non-timber

products (such as pine mushrooms) to various markets; and telecommunications (enTel Communications Inc.; NLG N.d.). Fisheries is the most important natural resources industry within Nisga’a Lands. The Nisga’a Nation has also received financial and contracting benefits related to the construction and operation of the NTL (BC Hydro 2012b).

A number of retail and service businesses are also present. In their 2006 Labour Market Census, the Skeena Native Development Society (SNDS) reported that 63 businesses were located in Nisga’a villages (SNDS 2007a). These businesses are summarized in Table 4.3-3. Land lease opportunities for businesses interested in operating in the area are provided by NLG (N.d.).

Table 4.3-3. Businesses Located in Nisga’a Villages (2006)

Nisga’a Villages	Privately Owned	Communally Owned	Artists	Total
Gitlaxt’aamiks	12	11	7	30
Gitwinksihlkw	4	1	No Data	5
Laxgalts’ap	6	4	3	13
Gingolx	5	3	7	15
Total	27	19	17	63

Source: SNDS (2007a).

The Nisga’a Business Survey, carried out as part of the EA, surveyed 22 Nisga’a or NLG owned businesses which ranged from accommodation and catering to construction and transportation, as well as a variety of village government enterprises and public services (Rescan 2012f). Over half of these businesses were single proprietorships and more than a third were owned and operated by one of the four Nisga’a village governments.

The majority of surveyed businesses (75%) reported fewer than 5 employees, while the top four businesses reported 129, 42, 40, and 21 employees (Rescan 2012f). The client base of these businesses was dominated by NLG or Nisga’a village governments. Over two-thirds (68%) of the businesses reported more than half of their business coming from either or both levels of local Nisga’a government.

4.3.1.2.1 Subsistence (Non-wage) Activities

Subsistence activities are actively pursued as important elements of traditional Nisga’a culture. According to a 2011 social, economic, resource use, and cultural (SERC) survey carried out as part of the EA, wild or country food is an important aspect of Nisga’a household livelihood for both Nisga’a living on Nisga’a Lands and those living outside of the Nass (Table 4.3-4). In addition to traditional cultural practices, country foods supplement incomes as well as contemporary food options for many Nisga’a citizens. More than two thirds of Nisga’a citizens, both on and off Nisga’a Lands, reported weekly consumption of wild fish. Slightly less than half of respondents on Nisga’a Lands reported eating meat and/or wild berries and plants on a weekly basis (Rescan 2012e).

Table 4.3-4. Country Food Consumption of Nisga'a Citizens

Nisga'a Citizens	Wild Meat	Wild Berries / Plants	Wild Fish
Residing On Nisga'a Lands (% at least once a week)	46.2%	47.2%	88.9%
Residing Off Nisga'a Lands (% at least once a week)	23.4%	33.9%	72.8%

Source: Rescan (2012e).

4.3.1.3 Employment and Labour Force

Economic and employment data specific to Nisga'a Lands are unavailable in the 2011 census. Data from 2006 is provided from two distinct sources, which are not entirely comparable¹³. According to the Skeena Native Development Society's (SNDS) 2006 Labour Market Census, the total active Nisga'a Nation labour force at that time was 973, with the participation rate for individual communities ranging from 84 to 95% (Table 4.3-5; SNDS 2007a). Approximately 58% of the total labour force reported being employed, with Gitwinksihlkw reporting the highest employment rate (82%) and Laxgalts'ap reporting the lowest (46%). Of those employed 57% reportedly worked full time while 26% were seasonally employed and 17% employed part-time. Seasonal employment, including pine mushroom picking, forestry, and fishing, was lowest in Gingolx (11%) and highest in Laxgalts'ap (36%; SNDS 2007a).

In comparison, 2006 census data reports a cumulative active labour force of approximately 665 people in three communities as labour related data from Laxgalts'ap were not available (Statistics Canada 2007b). Participation in the labour force remained relatively high, ranging from 61% in Gingolx to 74% in Gitwinksihlkw, but notably lower for each village compared to SNDS data (Tables 4.3-5 and 4.3-6). Participation rates were higher than the provincial average of 65.6, with the exception of Gingolx. Employment rates were also lower than SNDS figures and varied from a low of almost 33% in Gingolx to 58% in Gitwinksihlkw (Statistics Canada 2007b).

Table 4.3-5. Nisga'a Nation Participation and Employment Rates: SNDS 2006

Nisga'a Village	Active Labour Force	Employment Rate (%)	Participation Rate (%)	Unemployment Rate (%)
Gingolx	159	52.8	84.1	47.2
Gitlaxt'aamiks	425	62.6	94.9	37.4
Gitwinksihlkw	104	81.7	94.5	18.3
Laxgalts'ap	285	46.0	92.8	54.0
Total	973			

Source: SNDS (2007a).

¹³ Estimates of labour force participation, employment and unemployment varied between sources (i.e. Statistics Canada and the SNDS) and may be due to differences in data definitions, survey methods, and/or participation.

**Table 4.3-6. Nisga'a Nation Participation and Unemployment Rates:
Statistics Canada 2006**

	Gingolx	Gitlaxt'aamiks	Gitwinksihlkw	Laxgalts'ap	BC
Total population 15 years and over	245	605	155	X	3,394,910
In the labour force	61.2% (150)	66.1% (400)	74.2% (115)	X	65.6% (2,226,380)
Participation Rate (%)	61.2	66.1	74.2	X	65.6
Employment Rate (%)	32.7	49.6	58.1	X	61.6
Unemployment Rate (%)	46.7	26.2	26.1	X	6.0

Source: Statistics Canada (2007b).
X = data suppressed

Estimates of unemployment in the four Nisga'a villages from both sources were substantially above the provincial unemployment rate of 6%. The SNDS, for instance, reported unemployment above 37% for all communities, with the exception of Gitwinksihlkw at 18% (SNDS 2007a). Including all four villages, the SNDS estimated that approximately 400 Nisga'a citizens were unemployed in 2006. By comparison, 2006 census data estimated unemployment around 25% in Gitlaxt'aamiks and Gitwinksihlkw, and over 40% in Gingolx (Statistics Canada 2007b).

A weak economic base and the lack of job opportunities were the most common reasons cited for unemployment (SNDS 2007a). Other reasons cited included: a lack of education, skills, and training; seasonally restricted employment; limited local funding; nepotism; and lack of incentive due to dependency on social services. These reasons are consistent with those reported during primary research carried out as part of the EA (Rescan 2012e, 2012f).

4.3.1.3.1 Employment Sectors

Almost 65% of employment in Nisga'a Lands is provided by the public sector (SNDS 2007a), mostly for NLG or one of the village governments. Fishing, the most important natural resource industry locally, employed 11.5% of the labour force. Other natural resource industry employment included forestry (3%) and mining (0.7%).

According to Statistics Canada (2006), industry and occupational significance varies across each community (Statistics Canada 2007b). Key industries in most communities included educational services, health care and social services, agriculture and other resource-based industries, followed by business services and construction (Table 4.3-7). A variety of other services also dominated the industry landscape accounting for approximately one third of the labour force.

4.3.1.4 Income and Earnings

Due to data suppression, income and earnings statistics from 2005 are only publically available for the two larger Nisga'a communities of Gitlaxt'aamiks and Gingolx (Table 4.3-8). Community data on income and earnings from the 2011 census are unavailable.

Table 4.3-7. Industry Significance by Labour Force, 2006

Industry	Gitlaxt'aamiks	Gitwinksihlkw	Laxgalts'ap	Gingolx	BC
Total experienced labour force over 15	385	110	X	115	2,193,115
Agriculture and other resource-based industries	11.7% (45)	22.7% (25)	X	13.0% (15)	10.5% (229,945)
Construction	6.5% (25)	9.1% (10)	X	8.7% (10)	17.1% (375,975)
Manufacturing	2.6% (10)	0.0% (0)	X	0.0% (0)	6.3% (138,955)
Wholesale trade	0.0% (0)	0.0% (0)	X	0.0% (0)	5.5% (120,360)
Retail trade	3.9% (15)	0.0% (0)	X	8.7% (10)	8.1% (178,040)
Finance and real estate	0.0% (0)	0.0% (0)	X	0.0% (0)	3.5% (76,460)
Health care and social services	13.0% (50)	13.6% (15)	X	17.4% (20)	25.3% (555,880)
Educational services	22.1% (85)	13.6% (15)	X	8.7% (10)	15.5% (339,500)
Business services	7.8% (30)	9.1% (10)	X	13.0% (15)	3.9% (86,460)
Other services	35.1% (135)	36.3% (40)	X	30.4% (35)	4.2% (91,545)

Source: Statistics Canada (2007b).

Notes:

¹ Statistics Canada uses the term experienced labour force to refer to persons 15 years and over, excluding institutional residents who, during the week (Sunday to Saturday) prior to census day (May 16, 2006), were employed and the unemployed who had last worked for pay or in self-employment in either 2005 or 2006.

Table 4.3-8. Earnings and Income Data for Select Nisga'a Communities, 2005

Earnings and Income	Gitlaxt'aamiks		
	Total	Male	Female
Annual median earnings	\$14,989	\$12,192	\$18,022
Annual full-time median earnings	\$38,528	\$44,416	\$35,968
• Earnings as % of total income	78.1%	82.3%	74.4%
• Government transfers as % of total income	19.6%	15.9%	22.8%
• Other sources as % of total income	2.8%	2.9%	2.7%
Earnings and Income	Gingolx		
	Total	Male	Female
Annual median earnings	\$8,721	\$5,958	\$13,119
Annual full-time median earnings	\$39,040	\$39,040	\$38,656
• Earnings as a % of total income	60.4%	61.6%	61.7%
• Government transfers as % of total income	37.6%	38.4%	36.8%
• Other sources as % of total income	1.5%	1.3%	1.8%

Source: Statistics Canada (2007b).

Total median earnings in these two communities for persons over 15 years old, including full-time, seasonal and part-time workers, is low; median earnings in Gitlaxt'aamiks (\$14,989) and Gingolx (\$8,721), were considerably lower than the provincial figure of \$25,722 (Statistics Canada 2007b). However, earning figures for those working full-year and full-time were notably better. Full-time median earnings in both Gitlaxt'aamiks and Gingolx were approximately \$39,000, higher than BC's Aboriginal population, at \$34,600, and only slightly lower than the broader provincial figure of \$42,230. This suggests that where Nisga'a citizens with full-time employment are doing comparatively well, the broader community may need to rely more on non-wage activities and government sources of income in order to meet household livelihood needs.

Table 4.3-8 provides an overview of earnings and income in 2005 for these two communities. Of the total 218 respondents to the 2011 SERC survey living on Nisga'a Lands, about 60% had total income of less than \$25,000 in 2010; more than three-quarters (78%) had total income of less than \$40,000 (Rescan 2012e).

In 2006, earnings comprised between 60% and 78% of a resident's income, with government transfers amounting to over 37% in Gingolx, compared to less than 11% for the province (Table 4.3-8; Statistics Canada 2007b). More than one-third 2011 SERC survey respondents received at least 50% of their total income from government assistance (Rescan 2012e).

4.3.2 Tahltan Communities

The Tahltan Nation includes two bands (Tahltan Indian Band and Iskut First Nation) with members living on reserves in Iskut, Telegraph Creek,¹⁴ and Dease Lake (Figure 4.3-2). The Iskut First Nation is based in Iskut, approximately 80 km south of Dease Lake. It has an elected Chief and council. It has three reserves totalling 107.9 ha, including Iskut 6, Stikine River 7 and Kluachon Lake 1 (BC MARR 2011).

The Tahltan Indian Band is based in Telegraph Creek, 120 km southwest of Dease Lake. It has an elected Chief and 5 councillors. The Tahltan Indian Band has 12 reserves totalling 1,338.5 ha (BC MARR 2011; AANDC 2012a). These include (Figure 4.3-2):

- Classy Creek 8
- Dease Lake 9
- Guhthe Tah 12
- Hiusta's Meadow
- Salmon Creek 3
- Tahltan 1
- Tahltan 10
- Tahltan Forks 5
- Tahtcho Creek
- Telegraph Creek 6
- Telegraph Creek 6A
- Upper Tahltan 4

Four of the reserves are populated, including Telegraph Creek 6 and 6A, and Guhthe Tah 12. A large proportion of the Band also resides on Dease Lake 9

¹⁴ The community of Telegraph Creek includes Telegraph Creek 6, Telegraph Creek 6A, and Guhthe Tah 12.

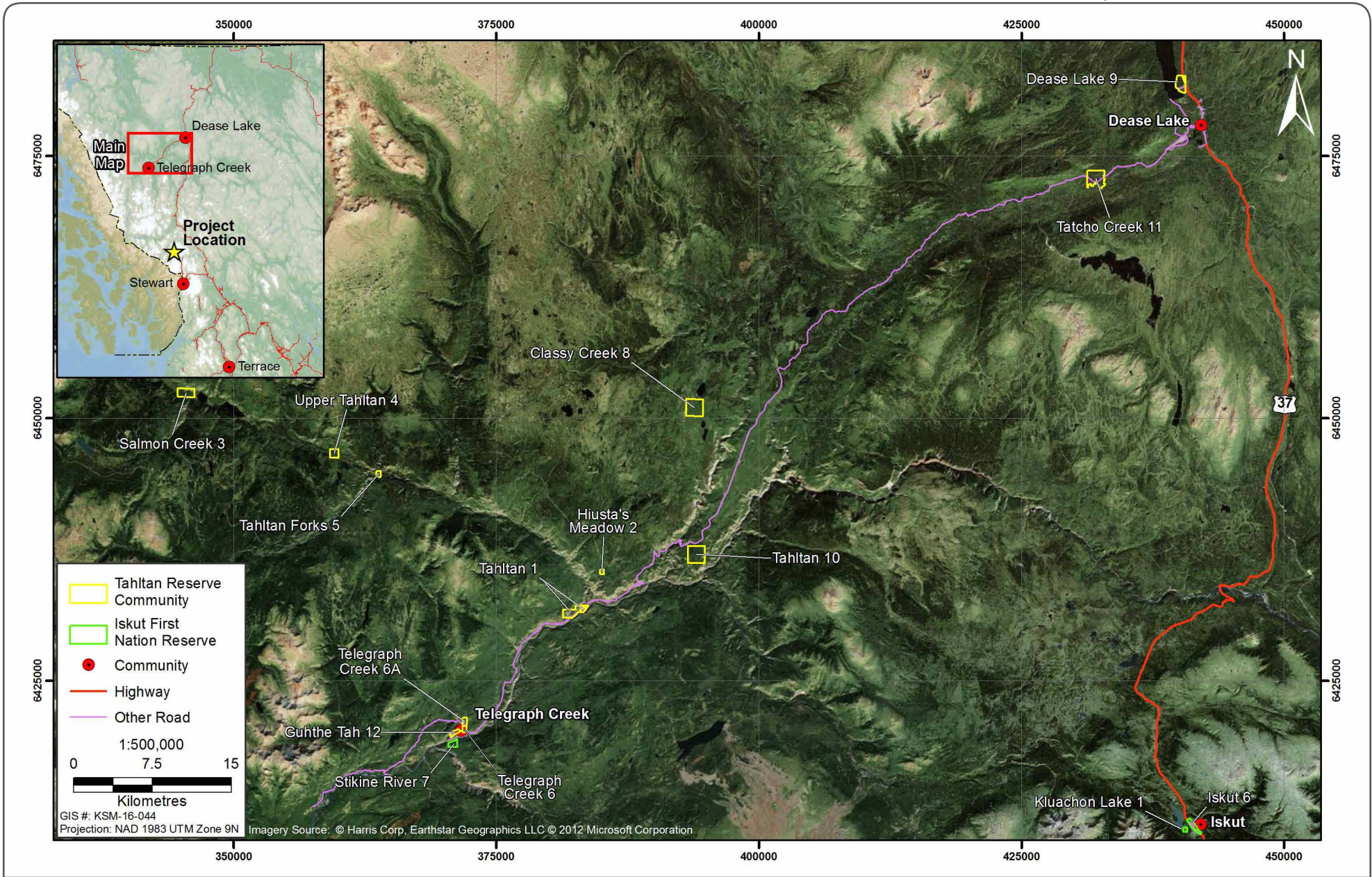


Figure 4.3-2

Figure 4.3-2

The Tahltan Central Council (TCC), based in Dease Lake, is the central administrative governing body for both the Iskut First Nation and Tahltan Indian Band. It represents approximately 2,500 Members of the Tahltan Nation living on and off-reserve. It is governed by an Executive Committee and a Board of Directors comprised of family representatives (TCC 2010). An Elders Advisory Council also provides guidance.

Section 4.3.2.1 provides an economic overview of the Tahltan communities, including Dease Lake 9. The unincorporated town of Dease Lake comprises both Aboriginal and non-Aboriginal residents and is discussed separately in Section 4.3.3.

4.3.2.1 Population

The Tahltan Indian Band population is larger than the Iskut First Nation. In July 2012, it had a registered population of 1,782 (Table 4.3-9). Notably, only 290 individuals (16%) were living on Tahltan Indian Band reserves, with 1,444 (81%) living off reserve, and 45 on other reserves (AANDC 2012a). The Iskut First Nation discontinued the provision of population information to AANDC in December 2010. On- and off-reserve population for the Iskut First Nation at that time was 705 members (AANDC 2010b).

Table 4.3-9. Tahltan Nation Population, July 2012

Community	Population on Reserve	Population on other Reserves	Population on Own Crown Land	Population on No Band Crown Land	Population off Reserve	Total Registered Population
Tahltan Indian Band	290	45	3	0	1,444	1,782
Iskut First Nation	n/a	n/a	n/a	n/a	n/a	705 ¹

Source: AANDC (2010b, 2012b).

Notes: ¹ December 2010 data.

n/a = not available

In terms of on-reserve population, the 2007 Tahltan Nation Census (Tahltan Census) reported a total of 651 Tahltan members living on-reserve in Telegraph Creek, Dease Lake, and Iskut (GMG Consulting 2009). This figure aligns with 2006 national census data for the three reserve communities (Statistics Canada 2007a).

According to Statistics Canada, the population on Tahltan reserves has decreased since 1996, with the most significant decrease occurring between 2006 and 2011 (Table 4.3-10). Notably, the 2011 census reports a total population of 427 persons residing on reserves compared to 654 residents in 2006, a cumulative decline of almost 30%. This result is difficult to explain given the level of economic activity and mineral exploration in the Tahltan traditional territory over the last few years (see Section 4.2.3). In spite of efforts to collect community-based research to help clarify this trend, primary data gathering had not occurred at the time of writing.

The median age in Tahltan communities increased over the last 10 years, most notably in Iskut where the median age was 35.8 in 2011, followed by 33.5 in Guhthe Tah (Telegraph Creek). Dease Lake reported the lowest median age at 27.5. This trend contrasts with the national trend in Aboriginal communities which have indicated an overall decrease in the median age (Statistics Canada 2007b).

However, the median age in all Tahltan communities where data were available remains below the provincial figure of 41.9 (Statistics Canada 2012a).

Table 4.3-10. Tahltan Nation Population: Statistics Canada Census (1996 to 2011)

Community ¹	1996	2001	2006	2011	% Change (1996 – 2011)
Dease Lake 9	104	66	68	58	-44.2%
Iskut 6	271	238	335	207	-23.6%
Telegraph Creek 6	96	63	62 ³	5	-94.8%
Telegraph Creek 6A	138	20	16 ³	0	-100.0%
Guhthe Tah 12 (Telegraph Creek)	0 ²	140	173	157	100.0% ⁴
Total	609	527	654	427	-29.9%

Source: Statistics Canada (1997, 2002b, 2007b, 2012a).

Notes:

¹ Statistics Canada notes that small populations are further rounded to protect the privacy and confidentiality of individuals.

² Statistics Canada notes an adjusted population count for this figure.

³ To enable comparison between census years, Statistics Canada has adjusted 2006 census data as needed to take into account boundary changes that occurred between 2006 and 2011.

⁴ A percentage change from zero to any number represents an increase of 100% or infinity.

Overall, there were slightly more male residents (52%) than females (48%) reported in Dease Lake, Guhthe Tah (Telegraph Creek), and Iskut (Statistics Canada 2012a). In comparison, AANDC reported 154 (53%) male and 136 (47%) female Tahltan Indian Band Members; information specific to the community of Iskut was unavailable (AANDC 2012a). These figures are consistent with the 2007 Tahltan Census (GMG Consulting 2009).

4.3.2.2 Economic Base

Tahltan communities rely primarily on the public sector and natural resource industries for economic opportunities. The primary employer is the Band office, including administration, health, and social services, as well as the TCC, followed by mining and mineral exploration (SNDS 2007a; Statistics Canada 2007a). Public sector employment in the Stikine Region, which formerly included Dease Lake, represented 40% of local incomes, with mining and construction representing 11% and 15% respectively (Horne 2009).

The Tahltan traditional territory is rich in high-quality natural resources, and industrial development in the area has historically focused on mining (Rescan 2009). As a result, mining has been an important source of employment, including employment at the former mines of Eskay Creek, Cassiar, and Golden Bear, as well as the Galore Creek and Red Chris projects which have both received their EA certificates. Although neither project is operating, construction work is proceeding at Red Chris and the Tahltan have a participation agreement with NovaGold Resources (NovaGold 2006). Both projects have the potential to be major direct and indirect employers of Tahltan members. Ongoing mineral exploration and development associated with other proposed mineral properties have also provided employment for the Tahltan.

4.3.2.2.1 Local Businesses

Local businesses in Telegraph Creek include a gas pump and general store. The Stikine RiverSong Café, open since 1977 and supporting tourism in the area, closed in 2012 and is currently for sale (Stikine RiverSong 2012). Additional research is required to identify other local businesses in the community. Tahltan Indian Band members based both in Telegraph Creek and on Dease Lake 9 rely on various commercial and retail businesses based in the unincorporated town of Dease Lake (Section 4.3.3).

The Tahltan Nation Development Corporation (TNDC), based in Dease Lake 9, was established in 1985 to ensure the long-term economic and environmental sustainability within Tahltan communities as well as Tahltan participation in regional mining and related construction activities (Jepsen 2005). Through discussions and contracts with numerous natural resource industry proponents, the TNDC has evolved into a major local and regional employer (TNDC 2007). The TNDC is involved in mining, road construction, hydroelectric power generation, and forestry both independently and through a number of joint ventures with existing service providers. TNDC employment activities range from catering and custodial work to heavy construction, road development, and transportation. Bear Dog Enterprises is another Tahltan business that creates local opportunities and has established successful joint venture programs (TNDC 2007; ATCO Group 2011).

On the Iskut reserve, there is as a post office, gas station, and a grocery store as well as other commercial services. Table 4.3-11 provides a summary of commercial services available in Iskut and the surrounding area (including Tatogga and Eddontennajon). The table shows the strong association between many local enterprises and the tourism sector.

Table 4.3-11. Summary of Iskut Business Sector

Type Of Business	Business Name
Accommodation and Tourism	Iskut Motor Inn
	Red Goat Lodge
	Iskutine Lodge / The Bike, Hike And Paddle Touring Company
	Bear Paw Ranch Resort
	Tatogga Lake Resort
	Mountain Shadow Guest Ranch
Construction	Unitech Construction Management
Groceries and Supplies	Kluachon Centre Store
Recreation	Bear Paw Ranch Resort
	Phantom Ram Lodge and Campground
	Tatogga Lake Resort

4.3.2.2.2 Subsistence (Non-wage) Activities

Subsistence activities, including hunting, fishing, trapping, and plant harvesting, are important to the daily life and culture of many Tahltan members. The 2007 Tahltan Census noted that 83% of Tahltan respondents participated in traditional harvesting activities (GMG Consulting 2009). Plant harvesting and fishing were the most popular activities. Hunting was also common;

however 24% of the population did not hunt at all. Traditional foods, particularly protein, supplements local diets and incomes and is consumed by 75% of residents at least once a week. While the economic significance of these activities varies with the individual, the Tahltan Census notes that the health, and heritage aspects of these land uses are highly valued. Further information on subsistence activities can be found in the *Tahltan Nation Traditional Use Desk Based Research Report*.

4.3.2.3 Employment and Labour Force

Figures from both SNDS and Statistics Canada indicated a 2006 active labour force of comparable size at 251 and 260 persons respectively (Table 4.3-12). Participation rates varied from 56% in Telegraph Creek to 67% in Iskut (Statistics Canada 2007a), whereas SNDS reported notably higher participation rates¹⁵ ranging between 76% and 89% (SNDS 2007a). As a result of declining population, the total number of individuals of labour force age (i.e. potential labour force) declined between 2006 and 2011, from 425 to 325, while the proportion of the population of labour force age remained the same at 75% (Statistics Canada 2007a, 2012a). Additional labour force data from the 2011 census is unavailable.

Table 4.3-12. Tahltan Labour Force Characteristics (2006)

Band	Labour Force (i.e. # Employed + Unemployed)		Participation Rate (i.e. Labour Force as proportion of total population aged 15-65)		Unemployment Rate (i.e. proportion of the Labour Force which is unemployed and seeking work)	
	Statistics Canada	SNDS	Statistics Canada	SNDS	Statistics Canada	SNDS
Dease Lake 9	30	-	66.7%	-	33.3%	-
Telegraph Creek (Guhthe Tah 12)	70	-	55.6%	-	20.0%	-
Iskut 6	160	-	67.3%	-	24.2%	-
Tahltan Indian Band	-	131	-	89%	-	28%
Iskut Band	-	120	-	76%	-	13%
Total	260	251				

Source: SNDS (2007a); Statistics Canada (Statistics Canada 2007a).

In comparison, the Tahltan Census reports that 88% of Tahltan residents (aged 18 years and over) were employed in 2007, with 48% working full-time, 14% part-time, and 18% seasonally (GMG Consulting 2009). Only 12% of the population reports being unemployed, a rate notably lower than reported in 2006 by Statistics Canada and the SNDS (SNDS 2007a; Statistics Canada 2007a). Data on participation rates were not provided.

¹⁵ Estimates of labour force participation, employment and unemployment varied between sources (i.e. Statistics Canada and the SNDS) and may be due to differences in data definitions, survey methods, and/or participation.

Table 4.3-13 provides a summary of 2006 participation rates, employment rates, and unemployment rates as reported by Statistics Canada by gender in the Tahltan communities, the RDKS, and in BC. Participation rates in Dease Lake and Iskut were comparable to the RDKS and province, while Telegraph Creek had a lower overall rate. Males had higher rates of participation than females across all Tahltan communities, whereas females had higher employment rates in both Telegraph Creek and Iskut. Employment rates in all communities were lower as compared to the RDKS and the province which may, in part, be due to the seasonal nature of certain employment in the region (Statistics Canada 2007a).

Table 4.3-13. 2006 Labour Force Characteristics: Select Tahltan Communities, Regional District of Kitimat-Stikine, and the Province of British Columbia

Location	Participation Rate			Employment Rate ¹			Unemployment Rate ²		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Dease Lake 9	66.7	100.0	60.0	44.4	75.0	40.0	33.3	50.0	0.0
Iskut	67.3	76.0	65.2	51.0	48.0	60.9	24.2	36.8	13.3
Guhthe Tah 12 ³ (Telegraph Creek)	55.6	61.5	46.7	44.4	38.5	46.7	20.0	37.5	0.0
RDKS ⁴	65.0	69.8	60.2	55.8	58.7	52.9	14.1	15.9	12.0
British Columbia	65.6	70.7	60.7	61.6	66.7	56.9	6.0	5.8	6.3

Source: Statistics Canada (2007b, 2007a).

Notes:

¹ Statistics Canada uses the term “in the labour force” to refer to persons who were either employed or unemployed during the week (Sunday to Saturday) prior to census day (May 16, 2006). The 2001 census, in comparison, used the term “total labour force”.

² Statistics Canada uses the term ‘employed’ to refer to persons 15 years or over, excluding institutional residents, who, during the week (Sunday to Saturday) prior to census day (May 16, 2006): (a) did any work at all for pay or in self-employment or without pay in a family farm, business or professional practice; (b) were absent from their job or business with or without pay, for the entire week because of vacation, an illness, a labour dispute at their place of work, or any other reasons.

³ The community at Telegraph Creek consists of Telegraph Creek 6, Telegraph 6A, and Guhthe Tah 12. Statistics Canada has suppressed the labour force characteristic for Telegraph Creek 6 and 6A. The data presented in this table is for Guhthe Tah 12.

⁴ In 2006, Dease Lake 9 was not included in the RDKS, but it was part of the Stikine unincorporated region.

Unemployment rates were notably higher in the Tahltan communities than the RDKS and province. The unemployment rate was highest for Dease Lake 9 (33%) which, in 2006, was more than five times higher than the provincial rate of 6.0%, and more than two times higher than that for the RDKS (Statistics Canada 2007a). Rates of unemployment among males were notably higher than females in all three Tahltan communities.

According to the SNDS, Tahltan residents attributed unemployment in their communities to a dependence on seasonal work opportunities; a lack of education and training; a weak economic base; low self-esteem; and a lack of economic planning (SNDS 2007a).

4.3.2.3.1 Employment Sectors

Public sector employment, through the Tahltan and Iskut Band offices, as well as the TCC, is prominent in all three communities. The Iskut First Nation, for instance, provided 46% of the jobs

in Iskut in 2006 (SNDS 2007a). Mining and exploration was also a key employer at that time, accounting for 45% of jobs for Tahltan Indian Band members, and 25% of jobs for Iskut Band members (SNDS 2007a). Tahltan residents have historically had a high level of participation in the mining industry, with community residents involved in the exploration and/or development of Eskay Creek, Cassiar, Golden Bear, and Galore Creek, as well as others. By comparison, the 2007 Tahltan Census reported 12% of all Tahltan residents as being employed by the mining industry, and an additional 9% in construction (GMG Consulting 2009). Employment in other resource sectors, including forestry and fishing, are not reported, though tourism accounted for 2% of jobs. Mining and mineral exploration related employment likely remains important for the Tahltan, though is anticipated to have fluctuated since 2006 as a result of the Eskay Creek mine closure and global economic trends. Additional primary research is required to determine the current level of mining sector participation within these three communities.

Occupations within the Tahltan communities in 2006 were most frequently related to: social sciences, education, and government; trades, transportation and equipment operations; sales and services; business, finance and administration; and primary industry (Statistics Canada 2007a). Jobs related to “primary industry” and “trades, transportation and equipment operations” were most predominantly held by men, whereas social science, education, and government service jobs were mostly held by women.

4.3.2.4 Income and Earnings

Income and earnings data were only reported for Iskut in 2006 (Statistics Canada 2007a). Iskut’s¹⁶ annual full-time median earnings in 2005 was almost \$36,000, which is below that of both the province (\$42,230) and the RDKS (\$47,395). However, when comparing total annual median earnings, including part-time and seasonal, the earnings gap diminished considerably (Table 4.3-14).

Table 4.3-14. Earning and Income: Iskut, Regional District of Kitimat-Stikine, and British Columbia (2005)

	Iskut	RDKS	British Columbia
Annual median earnings	\$21,952	\$25,062	\$25,722
Annual full-time median earnings	\$35,968	\$47,395	\$42,230
Earnings – as % of total income	86.3	77.6	75.1
Government transfers – as % of total income	14.5	13.6	10.7
Other Money – as % of total income	0.4	8.8	14.2

Source: Statistics Canada (2007b).

Table 4.3-14 indicates that earning as a percentage of total income was higher in Iskut (86%) as compared to the RDKS (78%), and the province (75%). However, Iskut received a slightly higher percentage of income from government transfers as compared to the RDKS and the province.

¹⁶ Income information from the 2011 census was unavailable at the time of writing. 2006 data were only available for Iskut.

4.3.3 Dease Lake

Dease Lake, located on Highway 37 almost 500 km north of Highway 16 and 230 km south of the Alaska Highway, acts as the primary service centre for the region (Figures 3.1-2 and 4.3-2). The community of Dease Lake includes Dease Lake 9 (Tahltan Indian Band), four kilometres north of town, as well as a large non-reserve settlement with both non-Aboriginal and Aboriginal residents. The settlement is unincorporated and officially classified as a ‘designated place.’ In 2007, the community was amalgamated into the RDKS; prior to this time, it was a part of the Stikine Region.¹⁷ The information that follows relates to the unincorporated community. Data related to Dease Lake 9 is included above in Section 4.3.2 (Tahltan Nation Communities).

4.3.3.1 Population

Dease Lake served as the centre for government services in the region until the 1990s. Since the relocation of most services to Smithers, the population of this community has declined significantly (Bridges and Robinson 2005). The community’s population in 2011 was 303, a 21.1% decline from 2006 and 4.7% decline over the ten year period between 2001 and 2011 (Table 4.3-15). Data prior to this period are unavailable. The notable decline since 2006 may be as a result on the Eskay Creek Mine closure in 2008 as well as the global economic downturn in 2008/2009 which slowed down economic activity in the region.

Table 4.3-15. Dease Lake (UNI) Population (1996 to 2011)

Community	1996	2001	2006	2011	% Change (2001 – 2011)
Dease Lake (UNI)	n/a	318	384	303	-4.7%

Source: Statistics Canada (2002c, 2008, 2012a); BC Stats (2007c).

Notes: n/a = not available

Males in 2011 comprised almost 53% of the population compared to females who comprised 47% of the population. This is a change from 2006 when females slightly outnumbered males. The median age in 2011 for the community was 34.6, much younger than the 41.9 years reported for the province (Statistics Canada 2012a). Almost 39% of the population in 2006 identified as Aboriginal and 61% as non-Aboriginal as compared to 4.8% of the province and 32% of the RDKS (Statistics Canada 2008).

4.3.3.2 Economic Base

Dease Lake is dependent on the resource base of the region. Mining has been the primary industry in the area, with guide-outfitting and wilderness tourism also playing important roles (DeaseLake.net 2006). A number of other businesses have developed to support resource industries in the region, including air transportation, accommodation and equipment supply to remote forestry and mining operators (Table 4.3-16). Construction services, including the base office for the TNDC, are also prevalent. Forestry is very limited. Following the transfer of harvest licensing to BC Timber Sales in 2003, the level of activity in the area sharply declined.

¹⁷ The Stikine Region is the only region in BC not represented by a regional district government. As such, planning and administrative services are lacking.

Table 4.3-16. Overview of Dease Lake Business Sector

Category	Business Name
Contracting and Construction	LDM (Lakes District Maintenance)
	Marcel Bernier Contracting
	Tahltan Nation Development Corporation (TNDC)
	Bear Dog Enterprises
Food and Accommodation	Arctic Divide Inn
	Northway Motor Inn
	Mama Z's Jade Boulder café
	Super 'A' Foods (Grocery Store)
	Northcountry General Store
Automotive and Transportation	Dease Lake R.V.
	CHD Holdings Tire & Repair
	Pacific Western Helicopters
	BC Yukon Air
	Tysat Aviation Ltd.

Source: Dease Lake Internet Society (2006).

The community receives a substantial amount of tourist traffic in the summer months as Highway 37 is one of two overland routes to Alaska. Due to its former significance as a regional BC government service centre, Dease Lake offers a wider range of business and services than either Iskut or Telegraph Creek. Community services include a post office, RCMP detachment, and the Stikine Health Centre. There is one elementary-secondary school, as well as the Northern Lights College campus. The BC government agency (“Service BC”) provides a range of government services, including offices for the Ministry of Transportation and Infrastructure , Ministry of Children and Family Development, and the BC MFLNRO.

The area has been economically depressed in recent years. Contributing factors include the relocation of some provincial government services to Smithers, the downturn in the forest industry, and job losses associated with the closure of the Golden Bear, Cassiar, Eskay Creek, and Granduc mines.

4.3.3.3 Employment and Labour Force

The total potential labour force in Dease Lake in 2011 (i.e., population 15 years of age and over) comprised 230 persons, a 23% decline from the 295 total in 2006 (Statistics Canada 2002c, 2008, 2012a). The active labour force in 2006 comprised 275 persons.

Table 4.3-17 provides a summary of the community’s labour force characteristics for both 2001 and 2006 relative to the province. In 2006, the participation rate was over 93% and the employment rate exceeded 88%, an increase over 2001 figures which indicate positive economic activity during this period. Rates were high for both men and women relative to the province, with men reporting higher participation and employment rates than women. By comparison, the RSA’s participation and employment rates were over 66% and 63% respectively.

Table 4.3-17. Labour Force Data for Dease Lake UNI (2001, 2006)

Labour Force	Dease Lake UNI 2001			Dease Lake UNI 2006			British Columbia, 2006		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Population 15 years+	245	120	130	295	130	165	3,394,910	1,649,590	1,745,320
In the labour force ¹	215	110	110	275	135	145	2,226,380	1,166,660	1,059,725
Participation Rate (%)	87.8	91.7	84.6	93.2	100.0	87.9	65.6	70.7	60.7
Employment Rate (%)	67.3	70.8	65.4	88.1	88.5	84.8	61.6	66.7	56.9
Unemployment Rate (%)	23.3	22.7	27.3	5.5	14.8	0.0	6.0	5.8	6.3

Source: Statistics Canada (2002c, 2008); AANDC (2007).

¹ Totals may not add up correctly due to rounding errors at source.

Unemployment was reported at 5.5%, below provincial and RSA rates in 2006 (6% and 10% respectively) and an improvement over the 23% unemployment rate in 2001. No females reported unemployment in 2006.

4.3.3.3.1 Employment Sectors

In 2006, both construction as well as transportation and warehousing combined for a total 25% of the workforce (Statistics Canada 2008; BC Stats 2009a). The TNDC employs both Tahltan members and non-Aboriginals in various construction, mining, and forestry contracts. Almost 26% of workers were employed in educational services, making it the largest single sector of employment. Other sectors, each comprising 9% of the workforce, included public administration, health care and social assistance, and professional, scientific, and technology services. Employment directly related to mining accounted for less than 4% of the workforce (Statistics Canada 2008).

4.3.3.4 Income and Earnings

The average earnings among full-time workers was almost \$47,000 in 2005, which compares favourably with both the province and RDKS, whereas total median earnings (including part-time and seasonal workers) at \$36,000 was notably higher than both the regional and provincial figures (Statistics Canada 2008). Table 4.3-18 provides an overview of community earnings and income for 2005.

Employment income accounted for 94% of total earnings, with government transfer payments contributing the additional 6% (Statistics Canada 2008). Both figures compare favourably relative to regional and provincial estimates (Table 4.3-18). Approximately 9% of households were classified as low-income (BC Stats 2009a, 2010c).

Table 4.3-18. Earnings and Income Data for Dease Lake (UNI), the Regional District of Kitimat-Stikine, and British Columbia, 2005

Earnings and Income	Dease Lake (UNI)	RDKS	British Columbia
Annual median earnings	\$36,035	\$25,062	\$25,722
Annual full-time median earnings	\$46,798	\$47,395	\$42,230
Earnings – as a % of total income	93.7%	77.6	75.1
Government transfers – as a % of total income	5.6%	13.6	10.7
Other Money – as a % of total income	0.7%	8.8	14.2

Source: Statistics Canada (2007b, 2008).

4.3.4 Stewart

The District of Stewart is located on the west coast of BC, opposite Alaska's Misty Fjords Park, at the end of the Portland Canal and Highway 37A (Figure 3.1-2). It was established in 1898 as a mining town, when prospectors arrived in search of placer gold, and over the years has served as a regional centre for gold and silver mining. Economically, it is an important regional and provincial port and the transit point for shipping concentrate from various projects in northwestern BC and the Yukon.

4.3.4.1 Population

Stewart's population has fallen dramatically in the past twenty years, coinciding with the closure of the Granduc and Premier mines (Bridges and Robinson 2005) and exacerbated by the downturn in forestry. The population declined by approximately 42%, or 362 residents, between 1996 and 2006, the largest drop among communities in the LSA. Notably, the trend appears to have stabilized between 2006 and 2011 (Statistics Canada 2012a). Table 4.3-19 provides an overview of the population over the last 15 years.

Table 4.3-19. District of Stewart Population (1996-2011)

Community	1996	2001	2006	2011	% Change (1996 – 2011)
Stewart	858	661	496	494	-42.4%

Source: Statistics Canada (2002b, 2007b, 2012a).

The median age of Stewart has increased as the population declined, indicating that younger residents may have moved out of the community over this period. The median age in 2001 was 36.2 years, increasing to 43.0 years in 2011, higher than the provincial figure of 41.9 years (Statistics Canada 2012a). Stewart's population was 53% male and 47% female in 2011, and comprised the lowest proportion of Aboriginal residents (10%) in the RDKS.

4.3.4.2 Economic Base

Stewart has been economically depressed in recent years and many residents have had to leave the area in search of work as a result of its isolation and reliance on primary sectors. Its economy is one of the least diversified in the province (Horne 2009), but the community remains more diverse than most other LSA communities along Highway 37/37A as a result of tourism arising from its

location as a gateway to Alaska. Consequently, tourism is gaining strength as an economic sector, attracting both Canadian and American tourists (A. Danuser and S. McFee, pers. comm.).

Mining has played a role in Stewart's economic life since it was settled and continues to do so today. The Huckleberry mine supports limited employment within the community, as it trucks ore concentrate from its mill to the Port of Stewart. The Eskay Creek Mine was also an important economic contributor and employer until its closure in April 2008 (Rescan 2009). Other mines in the area were the Premier, Granduc, Jumbo, Red Cliff, and Porter-Idaho (StewartBC.com 2011).

In recent years, the summer season has seen a large increase in mining exploration and Stewart has received economic benefits. Exploration has spurred creation of a number of local drilling companies, expediting firms (such as Granmac Services and Seaport Limousine), and heavy equipment rentals.

In terms of forestry and logging, the early 1990s saw up to 500 truck-loads of logs unloading their cargo on a daily basis near port facilities (E. Drew, pers. comm.). Today, Stewart continues to act as an export centre for raw logs, albeit to a nominal extent.

Community retail services and facilities in Stewart include a restaurant, gas station, gift shop, bakery, general store, and hotel. A bank and hardware store closed in 2009. Loss of services is a major concern for the community (A. Danuser and S. McFee, pers. comm.); notably there is no grocery store in the community. There is a Service BC branch which handles bill payments, licence and permitting, and other day-to-day transactions.

In 2010, construction began on the Long Lake Hydro Project following the awarding of an energy purchase agreement by BC Hydro (Regional Power 2012). The estimated \$90 to 100 million project was anticipated to employ up to 160 people at peak and be completed by summer 2013. The project will have an installed capacity of 31 MW, and power will be distributed via a new 10 km 138 kV transmission line which will connect to the BC Hydro grid (NDIT 2012b; Regional Power 2012).

4.3.4.2.1 Port of Stewart

The Stewart Bulk Terminals, a privately owned facility, serves as the shipment facility for ore concentrate to international destinations. The Port of Stewart is the northernmost ice-free port in North America, with terminals that have the capacity to service large international freighters capable of berthing up to 50,000 deadweight tonnage (District of Stewart n.d.). Facilities provide for both shallow and deep water barges and include two storage facilities and an average loading rate of 700 to 800 t/hour. The Huckleberry mine and Wolverine mine in the Yukon ship their concentrate from the port of Stewart. It is also the proposed destination for a number of proposed mining projects, including Galore Creek, Red Chris, Kutcho, and KSM (Stewart-Hyder ICC. 2008).

In July 2012, Stewart World Port completed a feasibility study to build a new port facility at the former Cassiar (Arrow) Dock owned by the District of Stewart (Stewart World Port 2012). Stewart World Port aims to compete with Stewart Bulk Terminals and address the shipping needs for the various mineral projects in northwestern BC.

Rescan conducted an observation study between August 31 and October 15, 2009 to assess the level of marine traffic near the Port of Stewart. During this six-week period, marine traffic was monitored every second day for two hours. This study revealed that an average of 10 vessels per day was observed near the Port of Stewart, including vessels at anchor. Most marine traffic was recreational, amounting to an average of just over seven (7.2) vessels per day in the vicinity. On average, just over two (2.4) industrial vessels were sighted per day and less than one (0.48) commercial vessels were sighted per day. Information on vessel movements was not available at the time of writing.

Although the community’s economy has suffered in recent years, a turnaround is potentially underway. It is likely that the NTL and Long Lake Hydro projects, both currently under construction, as well as increased mineral demand will help northwestern BC economically and that these benefits will be felt within the community. Anticipated upgrades to Stewart Bulk Terminals, as well as the development of Stewart World Port and renewed exploration at the Granduc mine site, will further benefit the community.

4.3.4.3 Employment and Labour Force

Stewart’s potential labour force in 2011 amounted to 405 people, a slight increase from the 385 reported in 2006 (BC Stats 2009c; Statistics Canada 2012a). By comparison, its active labour force was 305 and 390 in 2006 and 2001 respectively. The community’s 2006 employment and participation rates, at 74% and 79% respectively, improved over 2001 figures and were notably higher than provincial and RSA averages (Statistics Canada 2007b). Table 4.3-20 provides an overview of Stewart’s labour force characteristics in 2001 and 2006.

Table 4.3-20. Force Data for Stewart (2001, 2006)

Labour Force	Stewart 2001			Stewart 2006			British Columbia, 2006		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Population ¹ (15 years+)	455	225	225	385	190	195	3,394,910	1,649,590	1,745,320
In the labour force	390	200	190	305	175	130	2,226,380	1,166,660	1,059,725
Participation Rate (%)	74.5	77.8	71.2	79.2	92.1	66.7	65.6	70.7	60.7
Employment Rate (%)	56.6	51.9	59.6	72.7	81.6	64.1	61.6	66.7	56.9
Unemployment Rate (%)	24.1	31.0	18.9	8.2	11.4	0.0	6.0	5.8	6.3

Source: Statistics Canada (2002b, 2007b).

Notes: ¹ Totals may not add up correctly due to rounding errors at source.

Stewart reported an unemployment rate in 2006 of 8%, considerably lower than the 2001 rate of 24% and slightly higher than the provincial average of 6% (Statistics Canada 2007b). In contrast, the RSA’s unemployment rate was 10%. All unemployed individuals were male. Notably, the 2006 labour force was both smaller and more likely to be employed than in 2001, suggesting that those without work left the community to seek employment opportunities elsewhere.

4.3.4.3.1 Employment Sectors

The Huckleberry mine and regional forestry activities continue to provide limited employment for residents. Logging activities and associated employment have reportedly slowed over the past few years, while increased employment opportunities have become available in summer months with mineral exploration activities throughout northwestern BC (A. Danuser and S. McFee, pers. comm.). The transportation sector also employs a number of residents, including a few jobs with local trucking companies involved in transport of ore concentrate and logs. Stewart Bulk Terminals also offers a limited number of jobs. Tourism has also become an important local industry.

Stewart has an industrial labour force, with industrially related occupations accounting for around half of local employment in 2006. This includes transportation equipment operators (10%); trades helpers, construction, and transportation labourers (10%); occupations unique to forestry, mining, oil and gas, and fishing (10%); heavy equipment, crane operators, and drillers (8%); mechanics (5%); construction trades (3%); and primary production labourers (3%) (BC Stats 2009c). Key industries for employment in 2006 were business services (17%), construction (12%), resource-based industries (12%), followed by health and social services (Statistics Canada 2007b).

4.3.4.4 Income and Earnings

Annual median earnings of Stewart’s labour force were \$26,223 (Statistics Canada 2007b), which was above the provincial median of \$25,722. Full-time median earnings amounted to \$38,190 annually, below the provincial full-time median of \$42,230 (Table 4.3-21). Notably, male median and full-time median earnings were on average twice as high as female earnings.

Table 4.3-21. Earnings and Income Data for Stewart, 2005

Earnings and Income	District of Stewart			BC
	Total	Male	Female	Total
Annual median earnings	\$26,223	\$41,780	\$19,521	\$25,722
Annual full-time median earnings	\$38,190	\$60,556	\$34,125	\$42,230
- Earnings as % of total income	81.3	92.0	67.3	75.1
- Government transfers as % of total income	11.0	6.6	17.4	10.7
- Other money as % of total income	7.8	3.8	13.4	14.2

Source: Statistics Canada (2007b).

On average, earnings comprised 81% of total income, while government transfers accounted for an additional 11%. In total, earnings constituted a larger portion of income in Stewart than provincially (75%).

Percent income dependencies for Stewart in 2006 included the public sector 52%, mining and mineral processing 8%, construction 7%, tourism 7%, fishing 4%, and forestry 3% (Horne 2009). The public sector dependency is the highest in the province. Importantly, industry significance has changed considerably in the last decades with income dependence on mining dropping from 43% in 1991 to 8% in 2006. Likewise, income from forestry dropped from 25% in 1996 to 3% in 2006 (Horne 2009).

4.3.5 Gitanyow

The Gitanyow First Nation has three reserves along the Kitwanga River (Figure 4.3-3). The village of Gitanyow is located on Gitanyow 1 along the Highway 37 corridor and approximately 20 km north of Kitwanga (Gitwangak). Gitanyow 2 is north of Gitwangak and Gitanyow 3A is at the south end of Kitwanga Lake. The Gitanyow Band office is run by an elected Chief and seven councillors and provides local services to Gitanyow members living on-reserve. The Gitanyow Hereditary Chiefs Office is also based in the village of Gitanyow with the mandate to address treaty negotiations with Canada and BC, as well as land and resource management concerns within their traditional territory (BC MARR n.d.).

4.3.5.1 Population

A total of 382 members were residing on Gitanyow 1 in July 2012 according to AANDC, compared to 383 as reported by Statistics Canada in 2011 (AANDC 2012b; Statistics Canada 2012a). Total Gitanyow membership is over twice this size and comprised 802 individuals, including 386 members residing off reserve and 34 members residing on other reserves (Table 4.3-22).

Table 4.3-22. Gitanyow Population, July 2012

Community	Population on Reserve	Population on other Reserves	Population on Own Crown Land	Population on No Band Crown Land	Population off Reserve	Total Registered Population
Gitanyow	382	34	0	0	386	802

Source: AANDC (2012b).

The on-reserve population decreased by 6% between 1996 and 2011 although appears to have stabilized between 2006 and 2011. Table 4.3-23 provides census population data for Gitanyow for this period.

Table 4.3-23. Gitanyow Population: Statistics Canada Census (1996 to 2011)

Community	1996	2001	2006	2011	% Change (1996 – 2011)
Gitanyow	408	369	387	383	-6.1%

Source: (Statistics Canada 2002b, 2007b, 2012a)

The average median age has increased by approximately two years over each census period to attain 28.1 in 2011 (Statistics Canada 2012a). This local trend contrasts with national Aboriginal communities who have indicated an overall decrease in the median age (Statistics Canada 2007a), but is similar to neighbouring Gitxsan as well as Tahltan communities. However, the median age in Gitanyow remains below the provincial figure of 41.9. The male to female ratio in the community was 0.9 (53% male and 47% female).

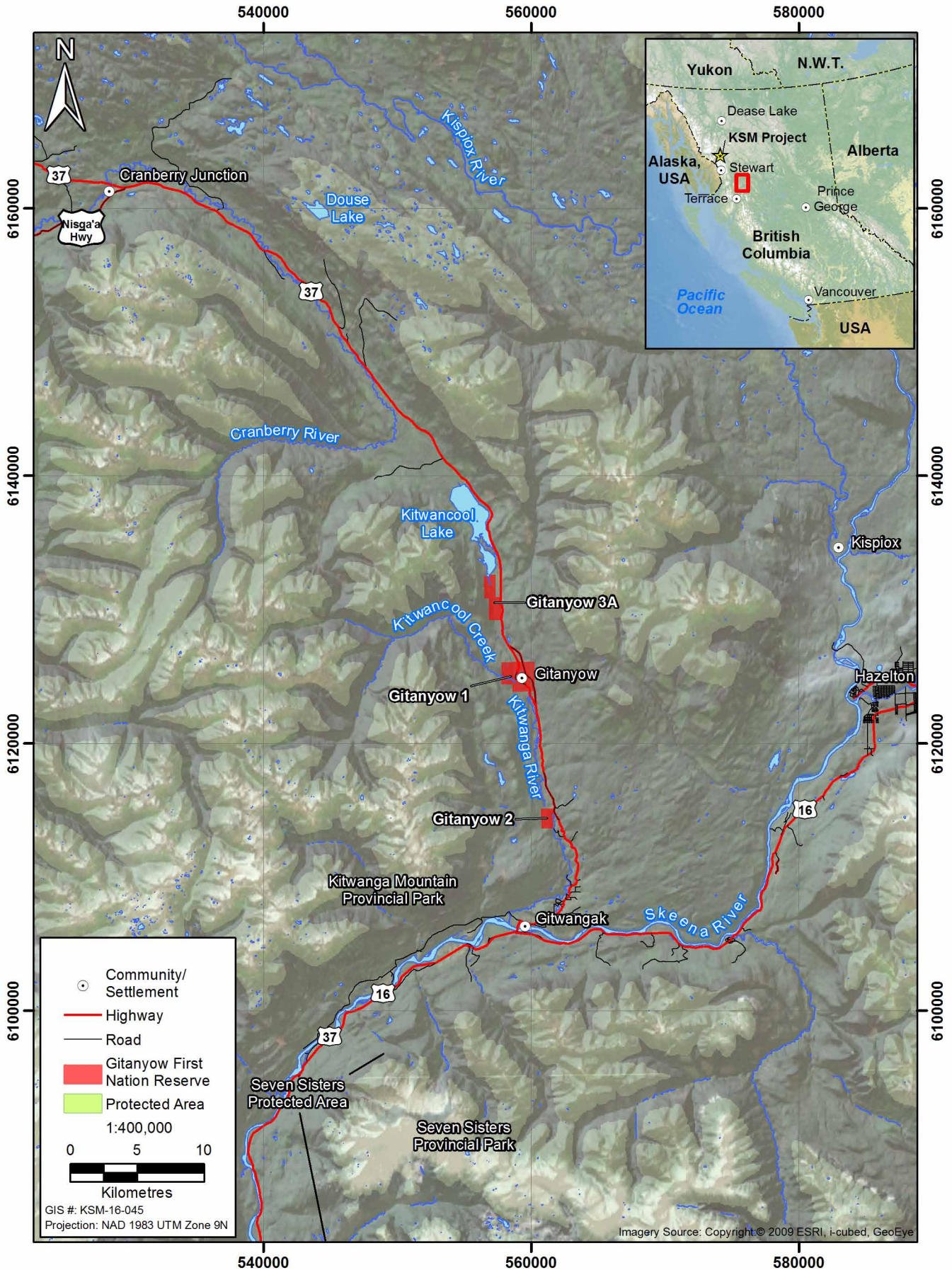


Figure 4.3-3

4.3.5.2 Economic Base

Similar to trends across northwestern BC, the economy is rooted in primary and secondary industries including forestry, construction, and manufacturing (Statistics Canada 2007a). Forestry has been the main resource industry in the past for the community, but economic impacts following the closing of the Kitwanga lumber mill have affected the Gitanyow community along with other communities in the area (Gitanyow Hereditary Chiefs 2006). The mill was purchased by Pacific Bio-Energy in September 2009, and work was underway for developing a wood pellet processing facility (Pacific BioEnergy 2012). However, the Kitwanga lumber mill closed indefinitely in October 2011 due to a softening of Chinese demand and resulting lower lumber prices (BC MFLNRO 2011a). With respect to construction, BC Hydro and the Gitanyow First Nation signed an agreement for employment, contracting and other economic opportunities related to the construction of the NTL (BC Hydro 2012a).

The community also offers a small number of locally-based forestry and fishing related services (Rescan 2012a). Local commercial services include a local gas bar, convenience store and museum, though residents rely on Terrace and Hazelton for most retail services. The Gitanyow Band Office, Gitanyow Hereditary Chief's Office (GHCO) and Gitanyow Health Services are based in the community and provide an important source for local employment.

4.3.5.2.1 Subsistence (Non-wage) Activities

Traditional subsistence activities such as hunting, fishing, trapping, and plant gathering are strongly evident. Each Gitanyow wilp also utilizes traditional hunting territories within their house territories. Fisheries located along the Kitwanga and Nass rivers, as well as the Gitanyow and Meziadin lakes areas, are monitored by the Gitanyow Fisheries Authority and are important for seasonal salmon harvests (GFA 2010; SFC n.d.). A Comprehensive Fisheries Agreement was signed between the Gitanyow and the Minister of Fisheries and Oceans on May 21, 1999 (GFA 2010). The Agreement includes provisions for a Food, Social and Ceremonial fishery each season. The Gitanyow Fisheries Authority is run by the GHCO as a non-profit society that administers and implements the Food, Social and Ceremonial fishery as stipulated under the Agreement.

All respondents in the Gitanyow Wilp-based Socio-cultural Needs Assessment reported consuming country foods gathered from their territories, including fish, moose meat, berries and other foods (Marsden 2010). For more information regarding Gitanyow subsistence activities, refer to the *Gitanyow First Nation Traditional Use Desk Based Research Report (Rescan 2012c)*.

4.3.5.3 Employment and Labour Force

The total potential labour force size (i.e., residents aged 15 years and over) in Gitanyow was 275 people in both 2006 and 2011 (Statistics Canada 2007b, 2012a). The 2006 active labour force size however was much smaller and comprised 145 persons. Table 4.3-24 provides an overview of labour force characteristics for 2001 and 2006.¹⁸

¹⁸ Gitanyow employment and unemployment data for 2001 and 2006 are available only for Gitanyow 1. Census 2011 data are unavailable.

Table 4.3-24. Labour Force Data for Gitanyow 1, 2001 to 2006

Labour Force	Gitanyow, 2001			Gitanyow, 2006			British Columbia, 2006		
	Total	Male	Female	Total	Total	Female	Total	Male	Female
Total Population ¹ 15+	145	85	60	275	145	130	3,394,910	1,649,590	1,745,320
In the labour force ¹	75	35	40	145	85	60	2,226,380	1,166,660	1,059,725
Participation Rate	46.9%	48.1%	45.5%	52.7%	58.6%	46.2%	65.6%	70.7%	60.7%
Employment Rate	30.6%	22.2%	36.4%	25.5%	27.6%	23.1%	61.6%	66.7%	56.9%
Unemployment Rate	34.8%	53.8%	20.0%	51.7%	58.8%	50.0%	6.0%	5.8%	6.3%

Source: Statistics Canada (2002b, 2007b).

¹ Totals may not add up correctly due to rounding errors at source.

Labour force participation in 2006 (being either employed or unemployed and seeking work) was almost 53%, an increase over the 47% participation rate in 2001, though notably lower than both provincial and RSA figures. By contrast, the employment rate declined between 2001 and 2006 from 31% to almost 26% as the labour force increased.

By comparison, the Gitanyow Wilp-based Socio-cultural Needs Assessment reported that 29% of adult wilp members were employed full-time, 6% part-time, and 12% seasonally (Marsden 2010). Forty-six percent reported being unemployed, which is in the broad range of unemployment reported in the 2006 census. The remaining 7% were retired or in school.

Major unemployment and reliance on social assistance are prevalent characteristics of the Gitanyow community. The unemployment rate increased notably from 2001 to 2006, particularly among females (Table 4.3-24). Unemployment rates for men were up to ten times higher than provincial figures (Statistics Canada 2007a). Reasons given by community representatives for unemployment were: lack of education, training, and skills; dependency on social assistance; lack of incentive; lack of job opportunities; and a weak local economic base which may be tied to the closing of mines in the region (SNDS 2007a, 2007b). However it is also likely that high unemployment is a result of the community's strong dependence on the forestry sector in recent decades.

4.3.5.3.1 Employment Sectors

The Gitanyow labour force was diversified across a variety of sectors. Business services and manufacturing each comprised over 13% of the labour force while agriculture and other resource-based industries, construction, retail trade, health care and social services, as well as educational services each accounted for almost 9% of Gitanyow's labour force in 2006 (Statistics Canada 2007b). Almost 22% of the workforce also worked in a number of other services.

In both 2001 and 2006, males were primarily employed in agriculture, construction and manufacturing, business services as well as wholesale trade and retail trade. The female experienced labour force was focused in the health and education services and other service industries (Statistics Canada 2002a, 2007a).

By contrast, both the SNDS and Socio-cultural Needs Assessment reported that most of the employed population (54% and 67% respectively) worked in the public sector (SNDS 2007a; Marsden 2010), with the main employers being the Gitanyow Independent School, the health clinic, and Band Office (A. Derrick, pers. comm.). The SNDS reported forestry as the next most important sector with 25% of the workforce. Fisheries and tourism were reported to have 2% of the employed population each and a variety of other sectors employed 16% of the population. Forestry and mining were similarly reported as the second most important sector in the Socio-cultural Needs Assessment, but comprising only 13% of the employed population (Marsden 2010). Recreation, culture and sales accounted for 8%, processing and manufacturing another 6%, with both transportation and construction rounding out the final 6%.

4.3.5.4 Income and Earnings

Annual full-time median earnings, representing income received as wage or salary, for Gitanyow were \$27,200 in 2005. This is much lower than the median earnings for the province (\$42,230). Earnings for males (\$30,848) were higher than females (\$24,896) with earnings representing over 69% of total income (more for males than for females). By comparison, annual median earnings including part-time and seasonal work were slightly over \$10,000 in the community. In contrast with full-time earnings, females earned almost twice as much as males.

Government transfers were a major source of income, representing almost 30% of total income, almost three times higher than the amount for the province. Information on earnings and income is summarized in Table 4.3-25.

Table 4.3-25. Earnings and Income Data for Gitanyow 1, 2005

Earnings and Income	Gitanyow 1			BC
	Total	Male	Female	Total
Annual median earnings	\$10,208	\$8,480	\$16,480	\$25,722
Annual full-time median earnings	\$27,200	\$30,848	\$24,896	\$42,230
- Earnings as % of total income	69.4%	80.8%	66.3%	75.1%
- Government transfers as % of total income	29.5%	21.4%	37.8%	10.7%
- Other money as % of total income	1.2%	1.5%	0.9%	14.2%

Source: Statistics Canada (2007b).

4.3.6 Village of Hazelton and District of New Hazelton

The Village of Hazelton and the District of New Hazelton¹⁹ are located approximately 140 km northeast of Terrace and 60 km northwest of Smithers on the Yellowhead Highway 16 where the Skeena River meets the Bulkley River (Figure 3.1-2). The greater Hazelton area includes these two municipalities, as well as three unincorporated settlements (South Hazelton, Two Mile, and the Kispiox Valley), and four Gitksan reserves (Gitanmaax, Hagwilget, Glen Vowell, and Kispiox). The Hazelton area has been home to the Gitksan, Skii km Lax Ha, and Wetsuwet'en for more than 7,000 years (Village of Hazelton n.d.). This section focuses on the Village of Hazelton

¹⁹ Data specific to the unincorporated settlement of South Hazelton is aggregated within the data for the RDKS and is not specifically included as part of the LSA communities.

and the District of New Hazelton as these are the primary economic and service centres for the smaller communities and broader area.

4.3.6.1 Population

The populations in Hazelton and New Hazelton have declined over the last 15 years, consistent with the general trend in the broader RSA (Table 4.3-26). Populations have dropped by approximately one-fifth and one-tenth in Hazelton and New Hazelton respectively. Collectively, the 2011 population in Hazelton and New Hazelton was 936, a decrease of over 20% since 1996 (Statistics Canada 2002b, 2007b, 2012a). This trend may have stabilized or reversed in New Hazelton, as the community showed a population increase between 2006 and 2011 of almost 6%. Furthermore, although not formally part of the LSA, the Hazelton area comprises an additional population base of over 2,400 people whom reside in the neighbouring Gitksan reserves and unincorporated settlements of South Hazelton, Two Mile, and the Kispiox Valley (AANDC 2012a; Statistics Canada 2012a).

Table 4.3-26. Population in the Hazeltons: Statistics Canada Census (1996 to 2011)

Community	1996	2001	2006	2011	% Change (1996 – 2011)
Hazelton	347	345	293	270	-22.2%
New Hazelton	822	750	627	666	-19.0%
Total	1,169	1,095	920	936	-20.0

Source: Statistics Canada (2002b, 2007b, 2012a).

Notes:

Statistics Canada employs a method called random rounding to ensure confidentiality in which values, including totals are randomly rounded either up or down to a multiple of “5” or “10.”

The Skii km Lax Ha also reside in the Hazelton area (including Gitanmaax, Figure 3.1-2). The Skii km Lax Ha includes approximately 25 members (Rescan 2009). Another branch of the Skii km Lax Ha lineage (approximately 15 people) is established in the western US, and maintains regular contact with those in northwestern BC. There is limited statistical or economic information available on the Skii km Lax Ha due to their small size, lack of reserve, and recent efforts at establishing themselves as a distinct Aboriginal group.

According to Statistics Canada, the median age increased by approximately 10 years and seven years in Hazelton and New Hazelton respectively since 1996. The median age in Hazelton (47.0) is higher than for both New Hazelton (40.4) and the province (41.9) and the highest for all LSA communities (Statistics Canada 2012a). This result may be partially related to closure of three local saw mills in recent years, thereby causing younger individuals to seek employment elsewhere.

In terms of gender, the Village of Hazelton reported more females (56% than males (44%), whereas New Hazelton is comprised of more males (51%) than females (49%) in the most recent census (Statistics Canada 2012a). The proportion of the population identifying as Aboriginal ranged from over 49% in Hazelton to 37% in New Hazelton (Statistics Canada 2007b).

4.3.6.2 Economic Base

The Hazelton area, including First Nation communities, has historically been reliant on the forestry industry. The area has suffered and unemployment has increased steadily as the forestry sector has declined and several mills in the area have closed since the late 1990s (Maitland pers. comm.). More recently, a large part of the economy is accounted for by the transfer of federal funds to local First Nations bands (P. Weeber and B. Faasnidge, pers. comm.).

Today, Hazelton and New Hazelton have an increased focus on tourism; however, this is a small economic driver as the tourist season is typically limited to about two and half months (P. Weeber and B. Faasnidge, pers. comm.). The area offers scenery, wilderness recreation, Native culture, and salmon and steelhead fishing, though accommodation is limited.

Services in the area (e.g., Old Hazelton) are limited; most goods are purchased elsewhere (A. Maitland and B. Smith, pers. comm.). The area has lost a major grocery store, so food choices are limited and expensive. Clothing is also limited. The region does have a hardware store, tire shop, patchwork supplies, and industrial supplies.

There is a desire to improve economic development in the area while maintaining the local lifestyle. Many locals are reportedly enthusiastic about the contribution that mining could provide to the area (A. Maitland and B. Smith, pers. comm.). There is also a sense that mine development in the region would not only provide jobs and training opportunities, but could encourage the province to invest more in the North (A. Maitland, pers. comm.).

4.3.6.3 Employment and Labour

The total cumulative potential labour force for both Hazelton and New Hazelton was roughly 750 according to both 2006 and 2011 census data, which is consistent with the relative stability in population over this time frame (Statistics Canada 2007b, 2012a). In 2006, 530 persons comprised the active labour force. Participation rates of roughly 71% in both New Hazelton and Hazelton were above the provincial and RSA rate of 66% respectively (Statistics Canada 2007b). According to the EA Application for the NTL Project, the Skii km Lax Ha had a labour force of 12 people in 2009 (Rescan 2009).

Employment rates in the two communities showed a greater disparity; New Hazelton had a 57% employment rate as compared to 67% in Hazelton. By comparison, the RSA's employment rate was over 63%. Table 4.3-27 provides an overview of 2006 labour force data for these two communities relative to the province.

Labour force participants from Hazelton area communities reported limited full-time work (P. Weeber and B. Faasnidge, pers. comm.; A. Maitland and B. Smith, pers. comm.). Unemployment rates for 2006 in the Hazelton communities varied. Hazelton reported a low unemployment rate of 5% compared to 19% in New Hazelton and 10% for the broader RSA (Statistics Canada 2007b). Reasons for this disparity are unclear.

Table 4.3-27. Labour Force Data for Hazelton and New Hazelton (2006)

Labour Force	Village of Hazelton			District of New Hazelton			British Columbia		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Population ¹ 15+	275	130	145	475	235	240	3,394,910	1,649,590	1,745,320
In the labour force ¹	195	95	100	335	180	155	2,226,380	1,166,660	1,059,725
Participation Rate (%)	70.9%	73.1%	69.0%	70.5%	76.6%	64.6%	65.6%	70.7%	60.7%
Employment Rate (%)	67.3%	65.4%	69.0%	56.8%	53.2%	60.4%	61.6%	66.7%	56.9%
Unemployment Rate (%)	5.1%	10.5%	0.0%	19.4%	30.6%	6.5%	6.0%	5.8%	6.3%

Source: Statistics Canada (2002b, 2007b).

Notes: ¹ Totals may not add up correctly due to rounding errors at source.

4.3.6.3.1 Employment Sectors

A variety of different industries act as key employment sources in the Hazelton area, with the mix of industries varying slightly among communities. Industries that were prominent employers across communities in the Hazelton area in 2006 included agriculture and other resource industries, health care and social services, business services, and other services (Statistics Canada 2007b).²⁰ Males were more commonly employed within business, agriculture, and other resource industries, while females were more likely to be employed in health care and social services industries.

In order of significance, health care and social services, other services, education, and agriculture were important industries in New Hazelton, accounting for 22%, 20%, 18%, and 15%, respectively, of the workforce (Statistics Canada 2007b). According to the municipal government office, main local employer, accounting for approximately 50% of employment, are government, schools, RCMP, municipality, First Nations, and Northern Health (P. Weeber and B. Faasnidge, pers. comm.).

The business services industry accounted for 24% of the labour force in the Village of Hazelton, followed by health care and social services (22%), manufacturing (15%), and other services (15%). According to the mayor of the Village of Hazelton, the main employers and employment sectors are First Nations government, other government, the hospital and health services, and the school district (A. Maitland, pers. comm.). The tourism industry provides summer employment, particularly for youth (A. Maitland and B. Smith, pers. comm.).

Tsetsaut Ventures Ltd. is the economic branch of the Skii km Lax Ha and provides contract employment opportunities for Skii km Lax Ha, Gitxsan and other residents in the Hazelton area.

²⁰ 'Other services', as defined by the North American Industry Classification System (NAICS) include repair and maintenance, religious, personal care, etc.

It supports mineral exploration such as the construction and transport of core boxes, as well as providing workers and services for both the KSM and Brucejack projects.

In July 2012, Tsetsaut and the Gitxsan Development Corporation signed a Cooperation Agreement to facilitate the employment of 25 Gitxsan on construction related to the NTL Project (GDC 2012). Employment opportunities as a result of this agreement related to harvesting, clearing, environmental monitoring and more.

4.3.6.3.2 Subsistence (Non-Wage) Activities

Hunting, fishing, trapping, and gathering are key components of Gitxsan and Skii km Lax Ha traditions and are considered important to the community. Salmon and wildlife harvests are important contributors to the traditional subsistence economy. For more information regarding Gitxsan and Skii km Lax Ha subsistence activities, refer to the *Skii km Lax Ha Traditional Use Desk Based Research Report* and *Gitxsan Nation Traditional Use Desk Based Research Report (Rescan 2012g, 2012d)*.

4.3.6.4 Income and Earnings

In the Hazelton communities, the annual median earnings of the labour force totalled less than the provincial median of \$25,722 in 2005 (Statistics Canada 2007b). Annual median earnings in New Hazelton and Hazelton were respectively estimated at \$21,712 and \$21,029 (Table 4.3-28). By comparison, full-time annual earnings were reported to be relatively high in New Hazelton and Hazelton, respectively reported at \$60,271 and \$48,787. These levels of income exceeded the \$42,230 in full-time median earnings for BC in 2005.

Table 4.3-28. Earnings and Income Data for The Hazeltons, 2005

Earnings and Income (\$)	Hazelton			New Hazelton			British Columbia		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Annual median earnings	\$21,029	\$14,683	\$21,186	\$21,712	\$30,725	\$19,551	\$25,722	\$32,375	\$20,458
Annual full-time median earnings	\$48,787	\$65,310	\$48,756	\$60,271	\$60,295	\$59,077	\$42,239	\$48,070	\$36,739
- Earnings as % of total income	75.1%	75.4%	77.6%	77.2%	79.0%	76.7%	75.1%	78.5%	69.8%
- Government transfers as % of total income	16.8%	9.7%	22.8%	17.5%	16.1%	19.9%	10.7%	7.9%	15.0%
- Other money as % of total income	6.3%	13.5%	0.2%	5.6%	5.8%	5.2%	14.2%	13.6%	15.2%

Source: Statistics Canada (2007b).

New Hazelton and Hazelton sourced 77% and 75% of their aggregated community income from earnings, which was on par with the province (75%). At roughly 17%, both communities received a relatively large amount of income from government sources as compared to the province (Statistics Canada 2007b).

4.3.7 Smithers

Smithers is located within the Bulkley Valley Regional District, along Highway 16, and approximately halfway between Prince Rupert and Prince George (Figure 3.1-2). Smithers is the regional service centre for the Bulkley Valley given its strategic location along Highway 16 and the Canadian National Railway line.

4.3.7.1 Population

Smithers experienced the smallest overall population decrease among the LSA communities, dropping in 2006 but essentially returning to 2001 population levels by 2011 (Table 4.3-29). Population in 2011 was 5,404, a decrease of less than four percent since 1996.

Table 4.3-29. Smithers Population: Statistics Canada Census (1996 to 2011)

Community	1996	2001	2006	2011	% Change (1996 – 2011)
Smithers	5,624	5,414	5,217	5,404	-3.9%

Source: Statistics Canada (2002b, 2007b, 2012a).

As with other LSA communities, the median age has increased since 2001 from 33.3 to 37.2, though is the second lowest among LSA communities and remains below the provincial average of 41.9 (Statistics Canada 2012a). The male to female ratio in the community was similar to the province, with almost 49% male and 51% female residents. In 2006, almost 15% of the Smithers population identified as Aboriginal, as compared to 29% for the RSA (Statistics Canada 2007b).

4.3.7.2 Economic Base

Smithers is a regional service centre for the Bulkley Valley and the area to the north and west. Smithers provides a range of commercial, business, administrative, recreational, and cultural services not typically found in communities of this size (Town of Smithers 2010b). There has been increased economic diversification over recent years, although the town continues to be dominated by the forestry and public service sectors. There are a number of provincial government offices in Smithers including the ministries of Energy, Mines, and Natural Gas, Environment, Justice, and Forests, Lands and Natural Resource Operations.

Smithers’ economy was historically built on the primary resources sectors. Forestry continues to be the leading resource sector, followed by mining and agriculture. The town is currently home to the only remaining saw mill within the RSA. It has also been home to many regional mining employees and services (including the Huckleberry and former Eskay Creek and Kemess mines) and the staging point for charter services to mines and mineral exploration sites throughout northwestern BC. In 2007, mineral exploration in northwestern BC is estimated to have generated \$37 million in indirect economic benefits in the Smithers-Houston area (Chan and Hancock 2008).

The regional tourism sector is also growing, largely based on wilderness and backcountry recreation activities. Smithers’ role as a service centre is enhanced by its transportation facilities and business services (Town of Smithers 2010b). The Smithers Regional Airport runway was extended in 2008

to accommodate regional jets in order to support the mining industry (Smithers Regional Airport 2010). The airport is currently completing a pre-feasibility study to expand the terminal and make industrial development possible on land adjacent to the airport (D. Sargent, pers. comm.).

Since the relocation in the 1990s of government services from Dease Lake to Smithers, the community's participation in public administration and government has increased. Health and education are also important, and the community fulfils regional needs in these areas. Professional and scientific positions are more prevalent in Smithers than in much of the region, including Terrace. In general, the labour economy is well diversified and able to provide a wide range of services (BC Stats 2007a).

Business services include a variety of retail stores, gas stations, restaurants, and wholesale trade. The community has two shopping malls, major commercial banks and a range of key support services. VIA Rail, Canadian National Railway, Fairwest, Greyhound, and Smithers Bus Service provide ground-based transportation and distribution services.

4.3.7.2.1 Economic Development

In 2010, the Bulkley Valley Economic Development Association (BVEDA) was established to help generate leads for businesses in the community and support the growth of new and additional commercial and industrial opportunities in both the community and broader region (A. Stroet, pers. comm.). In order of importance, BVEDA will be focussing on the mining, tourism and forestry sectors going forward to encourage further economic development.

4.3.7.2.2 Official Community Plan

Smithers' Official Community Plan²¹ articulates elements of a strategy for economic growth and diversification, including retaining and strengthening the diversity of business activities; retaining provincial government services; supporting mining, forestry and agricultural efforts; encouraging developing secondary manufacturing businesses; and enhancing rail and regional air services (Town of Smithers 2010a).

4.3.7.3 Employment and Labour

The potential labour force of the community grew from 3,975 in 2006 to 4,290 in 2011, slightly more than the total population increase during this same period (Statistics Canada 2007b, 2012a). Additional labour force characteristics for 2011 are unavailable.

The active labour force in 2006 was 2,830 with a participation rate of 71%, higher than the provincial and RSA averages of 66% though a slight decrease from the community's 2001 participation rate (Table 4.3-30: Statistics Canada 2007b). Similarly, the community's 65% employment rate was higher than rates for both the province (62%) and RSA (63.5%). Participation and employment rates were generally higher among males.

²¹ Smithers' Official Community Plan (OCP) was redrafted and finalized in March 2010 (Town of Smithers 2010).

Table 4.3-30. Labour Force Data for Smithers (2001, 2006)

Labour Force	Smithers, 2001			Smithers, 2006			British Columbia, 2006		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Population ¹ 15+	3,235	1,695	1,540	3,975	1,890	2,080	3,394,910	1,649,590	1,745,320
In the labour force ¹	2,735	1,425	1,310	2,830	1,495	1,340	2,226,380	1,166,660	1,059,725
Participation Rate (%)	74.7%	82.3%	68.1%	71.2%	79.1%	64.4%	65.6%	70.7%	60.7%
Employment Rate (%)	67.7%	73.3%	62.6%	65.2%	73.0%	58.2%	61.6%	66.7%	56.9%
Unemployment Rate (%)	9.3%	10.6%	8.1%	8.5%	7.4%	9.3%	6.0%	5.8%	6.3%

Source: Statistics Canada (2002b, 2007b).

¹ Totals may not add up correctly due to rounding errors at source.

The 2006 unemployment rate in Smithers (8.5%, or approximately 240 people) was higher than that of the province (6%), though lower than the RSA's 10%, and marked no major change since 2001. Unemployment was more prevalent among women than men (Statistics Canada 2007b).

4.3.7.3.1 Employment Sectors

The provision of services, from health care to business, constitutes the largest area of employment, representing approximately 59% of jobs (Statistics Canada 2007b). Within the service sector, retail trade and food/accommodation account for a large number of jobs, reflecting Smithers' role as a service centre. Table 4.3-31 outlines some of the leading employers in Smithers.

Table 4.3-31. Select Smithers Area Businesses and Employment, 2010

Sector	Employer	Product/Service	#Employees
Health Care and social services	Northern Health Authority (Smithers)	Health Care	400
Education	School District #54	Education	400 ¹
Manufacturing	Pacific Inland Resources	Lumber	191
Automotive	Northwest Autodealers (association)	Automotive	150 ¹
Retail	Canada Safeway	Grocery	115
Accommodation and Food	Boston Pizza	Restaurant	60
Government	Ministry of Environment	Provincial Government	60
Health care and social services	Smithers Community Services	Community Services	50 ¹
Finance	Bulkley Valley Credit Union	Financial Services	50 ¹
Recreation and Real Estate	Hudson Bay Mountain	Ski Hill/Real Estate	50 ¹
Retail	Canadian Tire	Auto/Consumer Goods	40
Other	Bulkley Valley Pool	Recreation	28
Transportation and Warehousing	Bandstra Transportation	Trucking	15

Source: Invest BC (2010); ¹H. Gallagher, pers. comm.

Primary resource extraction, including agriculture, accounted for over 11% of total employment, up from 6.5% in 2001 (BC Stats 2007a; Statistics Canada 2007b). Secondary use of resources, including manufacturing and construction, represents an additional 11%. The largest proportion of forestry-related employment was in manufacturing industries (7.1%; BC Stats 2007a).

4.3.7.4 Income and Earnings

Smithers was reported to have an annual median income level of \$25,000 for all residents over 15 years of age in 2006, which was on par with the province. Annual earnings for those who worked full-time all year approximated \$42,200. Male earnings exceeded provincial averages, while female earnings were lower (Statistics Canada 2007b). The community exhibits a large discrepancy between male and female earnings, with males reporting almost 38% more than the median earnings of females (Table 4.3.32). This gender divide is greater than that for the province.

Table 4.3-32. Smithers Income Characteristics, 2005

Characteristics	Smithers	British Columbia
Annual median earnings	\$25,005	\$25,722
Annual full-time median earnings	\$42,207	\$42,230
• Males	\$52,331	\$48,070
• Females	\$32,641	\$36,736
Composition of total income (%)		
• Earnings	79.2%	75.1%
• Government transfers	12.1%	10.7%
• Other money	8.8%	14.2%

Source: Statistics Canada (2007b).

Earnings from employment constituted 79% of all income and government transfers accounted for 12% (Statistics Canada 2007b).

4.3.8 Terrace

Incorporated in 1927, Terrace is situated on a key freight corridor at the junction of highways 16 and 37 (Figure 3.1-2). Neighbouring communities include Kitimat (64 km to the south), Prince Rupert (140 km west), and Smithers (210 km east; BC Stats 2009d). Terrace is located within the RDKS.

4.3.8.1 Population

With estimated reported population of 11,486 in 2011 (Statistics Canada 2012a), Terrace is the largest of the LSA communities and an important service centre for trade and public administration in BC’s Northwest region. By contrast, the 2010 population of Terrace and the surrounding region comprised over 19,700 people (TEDA 2011).

According to Statistics Canada, Terrace’s population has declined by over 10% since 1996; however, this trend appears to have stabilized as Terrace experienced a population increase of 166 persons between 2006 and 2011 (Table 4.3-33; M. Kwiatowski, pers. comm.). The slight increase is potentially due to an economic turnaround which is partly related to the level of

investment in infrastructure projects and mineral exploration throughout the RSA in recent years (see Section 4.2).

Table 4.3-33. Terrace Population (1996-2011)

Community	1996	2001	2006	2011	% Change (1996 – 2011)
Terrace	12,783 ¹	12,109	11,320	11,486	-10.1%

Source: Statistics Canada (1997, 2002b, 2007b, 2012a, 2012c).

Notes:

¹To facilitate comparison between census years, population counts for Terrace have been adjusted by Statistics Canada to account for boundary changes between the 1996 and 2001 census.

Terrace’s median age increased between 2001 and 2011, consistent with the regional trend, to attain 38.8. In spite of this increase, the median age remains below the provincial median of 41.9 (Statistics Canada 2012a). The community’s gender ratio, with 49% males and 51% female residents, is comparable to the province. At the time of the previous census (2006) over 21% of Terrace’s population identified as Aboriginal, notably higher than both Smithers and Stewart though lower than the 29% figure for the RSA (Statistics Canada 2007b).

4.3.8.2 Economic Base

Terrace has a resource-based service economy, relying heavily on forestry employment and, to a lesser extent, the provision of mining, fishing, and other services for the region. With no industrial base, the community serves as a regional centre for business, retail, medical, and government services, as well as a hub for highway, rail, and air transportation (NDIT 2010a). As such, the community is diversifying to include more white-collar work.

Forestry-related jobs in Terrace have shrunk considerably in the last years, with the closure of several large industrial mills. The Terrace Lumber Company mill (formerly Skeena Cellulose Inc.) closed in 2007, resulting in the loss of 300 direct jobs (Rescan 2009). The West Fraser-Skeena sawmill closed in early 2010. Most notably, the Eurocan Pulp and Paper Mill, which operated in Kitimat since the 1960s, closed permanently in early 2010 (S. Harling, pers. comm.; Pöyry FIC 2010). The mill employed 535 persons and had numerous suppliers in Terrace and Kitimat. Forestry activity has increased since 2010, although has been focussed on the export of raw logs to Asian markets (S. Harling, pers. comm.; R. Dykman, pers. comm.). In the past five years, the community has focused on diversifying beyond forestry into a supply-and-service role serving all of northwestern BC.

As such, the city currently provides support services and business to the mining industry including communications, heavy-duty equipment repair and maintenance, helicopter services, bulk fuel storage, drilling contractors, explosives, and trades contractors. Although less significant than the Smithers-Houston area, mineral exploration in the region in 2007 is estimated to have contributed almost \$3 million in indirect economic expenditures in the Terrace service industry (Chan and Hancock 2008).

Looking forward, Kitimat’s Industrial Development Society estimated in 2011 that all northwest BC projects that were in an advanced stage of development or permitting represented a total

potential investment of over \$10.6 billion (K.T. Industrial Development Society 2011). However, as Terrace lacks an industrial tax base, the city administration does not see a substantial return from this activity despite the regional ‘boom’ in resource development (Ramsay, pers. comm.). The Rio Tinto Alcan modernization project in Kitimat has also had an impact on the local economy, both for jobs and the provision of various services.

Tourism is an important contributor to Terrace and the regional economy. Annual visits have increased since the late 1990s with the lowest number of visits at 86,218 in 1999 and highest at 99,062 in 2004 (Rescan 2009). Both the Terrace Tourism Society and the City of Terrace in their Official Community Plan have identified further development of the tourism sector as a priority.

There are a range of businesses in Terrace, including a variety of retail stores and services, restaurants, banking, and wholesale trade. The community has a shopping mall, grocery stores, and department stores as well as a range of other support service businesses. Overall, the economy is well diversified, with a strong base in a variety of services and industries (BC Stats 2007b).

4.3.8.2.1 Economic Development

Terrace’s economic development strategy includes a focus on its location along Canada’s Pacific Gateway, an integrated transportation network of airports, seaports, railways, and roadways linking Canadian, North American, Asian, and other world markets (TEDA 2011). The Terrace Economic Development Authority (TEDA), a public-private partnership, fosters Terrace’s economic growth through marketing, investment development and the promotion of local business. TEDA also provides economic development and market advice and maintains a database of all local businesses (TEDA 2010).

Assistance to Terrace businesses can be provided through the 16/37 Community Futures Development Corporation and the Business Development Bank of Canada. The SNDS, which closed in 2009, formerly provided training and employment support services to Aboriginal peoples in the city.

The city has a large area of serviced industrial lands (M. Kwiatowski, pers. comm.). It is undertaking a gap-opportunities study to identify top emerging industries to target for using the lands, as well as developing additional industrial lands south of the airport (S. Harling, pers. comm.).

4.3.8.2.2 Official Community Plan

Terrace adopted a set of objectives under its revised Official Community Plan, focusing on economic development and diversification, social well-being, local culture and reducing its environmental footprint. Key economic objectives include (City of Terrace 2011):

- supporting the development of additional commercial and industrial lands;
- developing a diversified local and regional economy through the promotion of commercial, service, technological and industrial opportunities as well as partnerships with other municipalities and First Nations groups;
- promoting tourism to the city and region; and

- investing in the transportation network infrastructure to maintain the city’s role as a regional hub and service centre.

4.3.8.3 Employment and Labour

According to Statistics Canada, the potential labour force of the community, as indicated by the population over 15 years of age, totalled 8,735 in 2006 and increased to 9,180 in 2011 (Statistics Canada 2007b; NDIT 2010a; Statistics Canada 2012a). The active labour force has also grown since 2001 to reach 5,995 in 2006, or a participation rate of almost 69% and employment rate of 62%. These levels are similar to provincial rates in 2006 (Statistics Canada 2007b). Although 2011 data are unavailable, it is likely that participation and employment rates have benefited from the level of economic and major project investment in the region (see Section 4.2). Table 4.3-34 provides an overview of labour force characteristics for both 2001 and 2006.

Table 4.3-34. Labour Force Data for Terrace (2001, 2006)

Labour Force	Terrace, 2001			Terrace, 2006			British Columbia, 2006		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Population ¹ 15+	6,910	3,650	3,255	8,735	4,285	4,445	3,394,910	1,649,590	1,745,320
In the labour force ¹	5,555	2,935	2,620	5,995	3,035	2,960	2,226,380	1,166,660	1,059,725
Participation Rate (%)	70.5%	76.2%	64.9%	68.6%	70.8%	66.6%	65.6%	70.7%	60.7%
Employment Rate (%)	61.0%	64.7%	57.3%	62.3%	64.3%	60.4%	61.6%	66.7%	56.9%
Unemployment Rate (%)	13.5%	15.1%	11.8%	9.3%	9.2%	9.1%	6.0%	5.8%	6.3%

Source: Statistics Canada (2002b, 2007b).

¹ Totals may not add up correctly due to rounding errors at source.

The unemployment rate was 9.3% in 2006 (NDIT 2010a), higher than provincial rates (6%) and Smithers (8.5%), however lower than the 10% unemployment rate within the RSA (10%; Statistics Canada 2007b). According to TEDA, the 2010 unemployment rate was a low of 3.7% (TEDA 2011). Large projects such as the construction of the NTL, port expansion projects in Prince Rupert and Kitimat, as well as increased mineral exploration and forestry activities have likely helped to contribute to the lowering of the city’s unemployment rate (D. Ramsay, pers. comm.).

4.3.8.3.1 Employment Sectors

Terrace’s regional service centre role is evident in the largest sector categories: business service, retail trade and a variety of other services accounted for 51% of the city’s employment in 2006 (NDIT 2010a). This was followed, in order of importance by health care, educational services, agriculture and construction.

With respect to employment by occupation, services accounted for almost 30% of occupations, followed by 13% for administrative and clerical (NDIT 2010a). In 2006, the city also had high levels of employment in labourers, machine operators, sales, management and technical positions (BC Stats 2007b). More recently however, TEDA reports that nearly half of the labour force in

Terrace is made up of management, professional, technical, and highly skilled occupations (TEDA 2011), with demand for skilled trades increasing (D. Ramsay, pers. comm.). Table 4.3-35 outlines some of the leading employers in Terrace.

Table 4.3-35. Terrace Businesses and Employment, 2011

Employer	Product/Service	#Employees
School District #82	Public Education	721
Northern Health Authority	Health	650
Wal-Mart	Retail	230
Northwest Community College	Education	218
Safeway	Retail	145
City of Terrace	Public Services	140
Canadian Tire	Retail	91
Save-on-Foods	Retail	90
McDonald's	Restaurant	89
Terrace Totem Ford	Auto Dealership	70
Tim Horton's	Restaurant	67
Northern Motor Inn	Accommodations	60
Real Canadian Wholesale	Retail	50
Northern Savings Credit Union	Financial Services	44

Source: TEDA (2010a).

4.3.8.4 Income and Earnings

Annual median earnings from all employment were reported at \$25,771, which was almost identical to the provincial average (Table 4.3-36). Annual median earnings for those who worked full time all year was \$45,957, over \$3,500 greater than the provincial average. Both male and female median earnings in Terrace slightly exceeded the provincial averages (Statistics Canada 2007b). The city exhibits a large discrepancy between male and female incomes, with males reporting 33% more than the median income of females. This gender divide is greater than that for the province.

Table 4.3-36. Terrace Income Characteristics, 2005

Characteristics	Terrace	British Columbia
Annual median earnings	\$25,771	\$25,722
Annual full-time median earnings	\$45,957	\$42,230
• Males	\$55,129	\$48,070
• Females	\$36,468	\$36,736
Composition of total income (%)		
• Earnings	76.9%	75.1%
• Government transfers	12.7%	10.7%
• Other money	10.5%	14.2%

Source: Statistics Canada (2007b).

The average family income in 2010 was over \$68,000, with almost 33% of families earned over \$80,000 (TEDA 2011).

Earnings from employment constituted 77% of all income and the share of total income from government transfers was almost 13%, slightly higher than the province for both figures (Statistics Canada 2007b). In 2006, 14% of employment incomes were dependent on forestry; 6% were dependent on mining and mineral processing, excluding the Rio Tinto Alcan operations in Kitimat (Horne 2009). This marks a shift from 1991, when 21% of incomes were reliant on forestry, and 14% on minerals (Rescan 2009). Thus, forestry remains an important component of Terrace's economy, although not as much as in Smithers and Hazelton communities. Construction accounted for 5% of incomes in Terrace, tourism 4%, while 26% of local incomes in 2006 were derived from the public sector (Horne 2009).

4.3.9 Highway 37/37A Unincorporated Settlements

The Project proposes to use highways 37 and 37A as a transportation route north from Bell II to Stewart during operations. Existing settlements along the highway are typically classified as tourist destinations and facilities and are notably smaller than the communities previously discussed. Most businesses are based on seasonal outdoor activities including fishing, hiking, heli-skiing, snowmobiling, and hunting. The following section summarizes the locations included along highways 37 and 37A, with details of their characteristics and activities.

4.3.9.1 Bell II

Bell II was established in 1979 as a service station for travellers along Highway 37. Additional facilities and services developed over the years and the site is now a modern wilderness destination. Today, the Bell 2 Lodge attracts visitors from around the world on a seasonal basis. In the fall, international tourists and recreationists pursue steelhead fishing on the Bell-Irving, Nass, and other rivers, while heli-skiing dominates the winter months. The lodge offers guiding services for both activities through Last Frontier Heli-skiing and Bell 2 Lodge Steelhead Fishing. Other activities include helicopter and small-plane tours and heli-hiking expeditions (Bell 2 Lodge 2008).

The Bell 2 Lodge includes a central lodge, restaurant, and five chalets. Other services include fuel (gas, diesel, and propane), camping and RV hook-ups, helicopter landing and fuelling facilities, and a garage for minor automotive repairs (Bell 2 Lodge 2008). The helicopter facilities are also used for mining exploration.

4.3.9.2 Meziadin Junction

Meziadin Junction is located 65 km from Stewart, BC at the junction of highways 37 and 37A. Gas and diesel services were formerly available, as well as a café, repair shop, and campground/RV park. However, facilities closed in 2006, have been decommissioned, and the property has been for sale for several years.

4.3.9.3 Bob Quinn Lake

Bob Quinn Lake is located at the junction of the Eskay Creek mine access road and Highway 37. A small airstrip was used to service the Eskay Creek mine. It is currently used as a logistical

centre for other projects in the region, including Galore Creek. Lakelse Air provides fuel, charter, and logistical support to Bob Quinn. Hawkair ran its Miner's Express in 2007 to Bob Quinn from Smithers and Terrace, although this service was indefinitely suspended in 2008 (Hawkair 2010).

A bed and breakfast is located three kilometres south of Bob Quinn, while the Bob Quinn Lodge, with accommodations for 49 people, is located two kilometres north. The Lodge supports industry activities such as forestry and mining and employs 15 people on an annual basis.

5 Conclusion

Economically, the goods sector in 2011 represented 24% of provincial GDP and one out of every five jobs in BC. Natural resource sectors have historically contributed to the growth of the BC economy, and much of the labour force has experience in these industries, though the services sector has grown in importance and represents today 76% of provincial GDP. Forestry, particularly over the last decade, has trended downward in the province, while mining and mineral exploration has trended upward. Following the economic downturn of 2008/2009, gross mining revenues, net incomes and exploration expenditures have notably increased on a yearly basis since 2009.

The RSA is comprised of remote communities, with limited infrastructure. Most communities within the RSA are strongly dependent on the extraction of primary natural resources and demonstrate limited economic diversity. Mining and forestry are the predominant industries in the region, and are also linked to secondary production in the processing and manufacturing sector (including mineral processing and lumber/pulp mills).

Aboriginal peoples have a physical and historical presence within the study area. Residents of most of the smaller communities are predominantly Treaty Nation and First Nations people. As such, Aboriginal residents comprise a larger proportion of the labour force within the RSA relative to other regions in the province. In addition to the economic involvement of Aboriginal peoples in resource and other industries, many First Nations and Treaty Nation members continue to pursue subsistence activities to supplement their household incomes and diets. The economic value of subsistence activities vary, but their health and heritage values remain important.

The narrow economic base in many communities has served as a barrier to development. Heavy dependence on the resource sector has created “boom and bust” economic cycles, both locally and regionally. During the boom years for mining and forestry, employment rises, skills and training increase, and the demand for spin-off goods and services grows. In recent years however, the decline in forestry has led to the closure of timber processing facilities throughout the region, and a number of operating mines (including Kemess and Eskay Creek) have ceased operations. These closures over the last 15 years have resulted in increased unemployment, economic depression, and possible emigration in search of work. As such, the regional and local population have trended downward since 1996.

These trends and barriers may be changing. The RSA has been the focus of significant investment in infrastructure projects, utilities and mineral exploration over the last five years. Ongoing construction of the NTL project, as well as Long Lake and Forest Kerr Hydro projects, are anticipated to lead to additional investment and development in the region, particularly mining. Port expansion and plant modernization projects are also anticipated to produce long-term economic benefits for LSA communities, the region and the province. This activity and investment is likely in part why population numbers have stabilized in many local communities and has led to a notable decrease in the unemployment rate, particularly among youth.

Conclusion

With its historic dependence on resource sector opportunities, the local labour force is experienced in trades and primary resource industries, and is accustomed to seasonal and shift-based work. An experienced and skilled labour force for the mining sector may be a challenge going forward however, due to baby boomer retirement, many people having emigrated in recent years in search of opportunities elsewhere, and many communities' stronger familiarity with forestry.

References

Definitions of the acronyms and abbreviations used in this reference list can be found in the Glossary and Abbreviations section.

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