

APPENDIX 7.0-A Economic Background Baseline Report







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ACRONYMS, ABBREVIATIONS AND DEFINITIONS

Abbreviation	Definition
ВС	British Columbia
BC MEMPR	BC Ministry of Energy, Mines and Petroleum Resources
CA	Census Agglomeration
DI	Diversity Index
DM	District Municipality
FRO	Forest and Range Opportunities
FVI	Forest Vulnerability Index
IPPS	Independent Power Projects
LHA	Local Health Area
LSA	Local Study Area
NRFL	Non-Replaceable Forest License
proposed Project (the)	Kitsault Mine Project
RD	Regional District
RDEA	Regional District Electoral Area
Rescan	Rescan Environmental Services Ltd.
RSA	Regional Study Area
SNDS	Skeena Native Development Society
TRSA	Transportation Regional Study Area
TSA	Timber Supply Area

UNITS OF MEASUREMENT

Abbreviation	Definition
%	Percent
m^3	cubic metre





EXECUTIVE SUMMARY

The assessment of baseline economic conditions examines conditions in three different areas. The populations in each of these areas have different employment, education and income characteristics.

The Local Study Area (LSA) consists of four Nisga'a Villages. In 2006, 665 residents of these communities were active in the labour force; most were employed but 30.8% were unemployed and looking for work. About one third of the labour force (33.8%) was experienced in the "other services" industry, which includes employment in local governments. Another 17.6% were employed in the health care industry, 13.6% in education, and 13.6% in agriculture and other resource-based industries. Small percentages of the labour force were experienced in the retail trade (4.0%) and business service industries (8.8%). About 30.5% of people working were employed full-time, year round. Median earnings for all workers in 2005 were \$13,556 and median earnings for females were 59% higher than for males. Earnings accounted for 74.9% of total income in the LSA, with transfer payments from government accounting for 22.9%. The median household income in the LSA in 2005 was \$31,223. In terms of education attainment, 36.0% of adults in the LSA had not completed high school, but 12.8% had a trade certificate or an apprenticeship.

The Regional Study Area (RSA) includes the communities of Terrace, Smithers, Prince Rupert, Stewart, and the various smaller communities and Aboriginal reserves in the Kitimat-Stikine Regional District Electoral Areas (RDEA) A, B, C (Part 1) and E. In 2006, 22,630 residents of these communities were active in the labour force. Unemployment ranged from 27.4% of Aboriginal people to 8.1% for non-Aboriginal people. Nearly onequarter of the labour force (22.9%) was experienced in the "other services" industry. However, 16.5% were employed in business service industries, 11.5% in retail trade and 10.7% in the health care industry. Relatively smaller percentages of the labour force were experienced in agriculture and other resource-based industries (9.9%), and educational services (9.1%). About 41.8% of people working were employed full-time, year round, although only 27.8% of Aboriginal people were employed full-time, year round. Median earnings for all workers in 2005 were \$24,403, but were \$13,578 for Aboriginal residents. Females in the RSA had median earnings that were 36% lower than males. Earnings accounted for 76.2% of total income in the RSA, with transfer payments from government accounting for 15.0%. The median household income in the RSA in 2005 was \$46,156. About 31.0% of adults in the RSA had not completed high school, but 12.1% had a trade certificate or an apprenticeship.

A Transportation Regional Study Area (TRSA) was originally defined which included the option to transport construction equipment, concentrate and other goods by barge. Although the barging option does not now form part of the proposed Project, for the purposes of this economic baseline description, the TRSA continues to include the areas that could have been potentially affected by the barging option, to provide additional background for the discussion of baseline economic conditions.







Thus, the TRSA includes waters and adjacent lands that have traditionally been used by the Gitxaala Nation, Lax Kw'alaams Band, Metlakatla First Nation, Kitsumkalum First Nation and Kitselas First Nation for a variety of marine-related activities. According to the 2006 census, 320 people residing in communities in the TRSA were active in the labour force and 45.3% were unemployed (Statistics Canada 2007a). One third of the labour force (33.3%) was experienced in the "other services" industry. Another 16.7% were employed in retail trade, with 14.8% in agriculture and other resource-based industries and 13.0% in the health care industry. Relatively smaller percentages of the labour force were experienced in educational services (7.4%) and no one was reported to have experience in business service industries. About 26.4% of people working were employed full-time, year round. Median earnings for all workers in 2005 were \$12,368 and median earnings for females were 36% higher than for males. Earnings accounted for 68.7% of total income in the TRSA, with transfer payments from government accounting for 29.1%. The median household income in the TRSA in 2005 was \$22,353. About 53.0% of adults in the TRSA had not completed high school, but 13.6% had a trade certificate or an apprenticeship.

Since 2006, unemployment rates in the larger North Coast / Nechako Development Region have risen from 6.7% to a high of 12.4% in May 2010, but have since dropped to about 7.2%. While median employment income in the overall study area increased by 20% between 2005 and 2008, the median incomes in the LSA and TRSA remain less than \$10.000.



1.0 ECONOMIC BACKGROUND

1.1 <u>Introduction</u>

This section describes the baseline economic conditions in the area which will potentially be affected by the proposed Kitsault Mine Project (proposed Project). The baseline characterisation focuses on key economic indicators related to employment and economic services that will be used to assess the effects of the proposed Project on the economic environment.

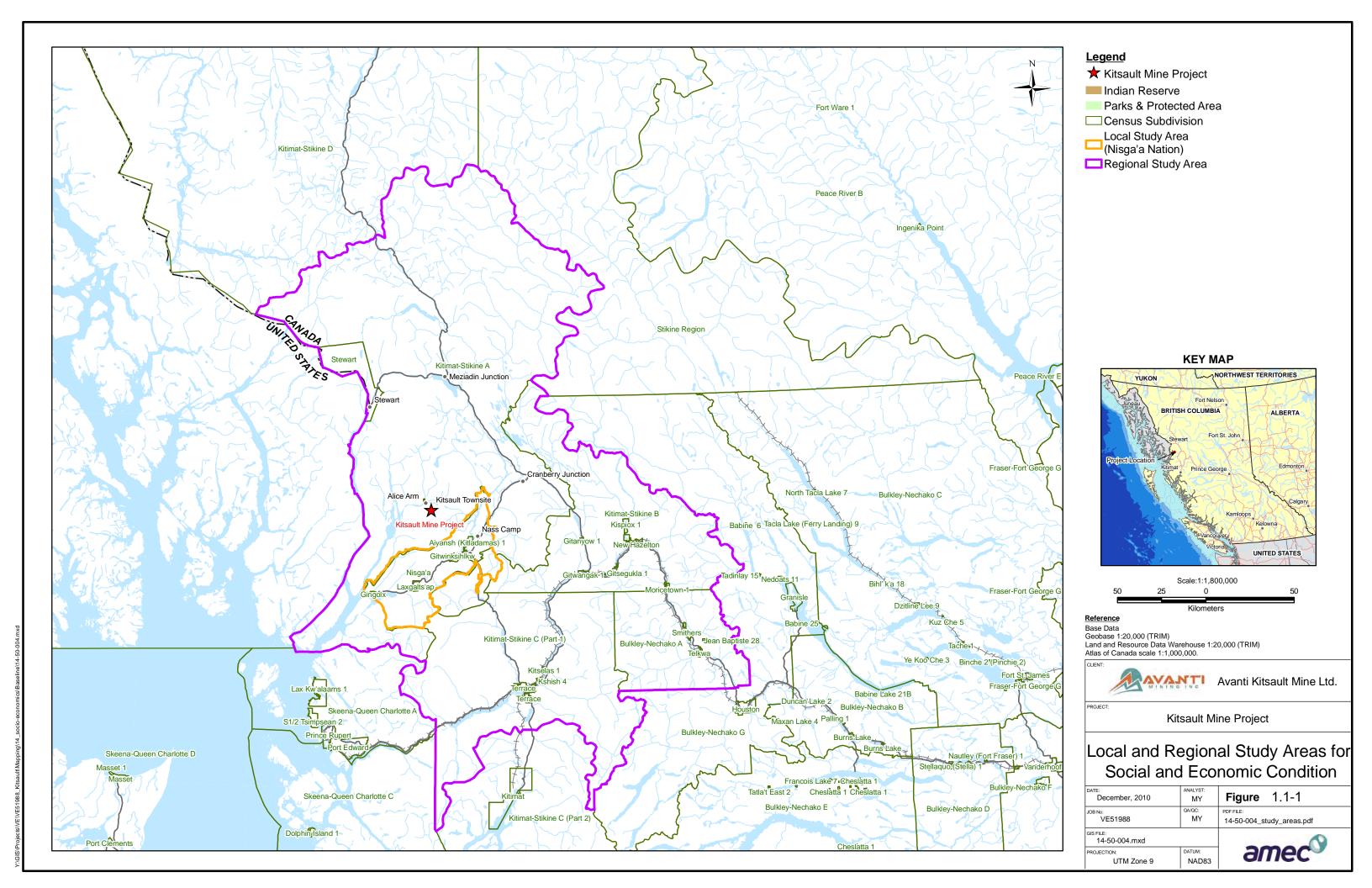
The proposed Project would be located on Alice Arm in the north coast area of British Columbia (BC). It is located in the central section (Area A) of the Kitimat-Stikine Regional District (RD) (Figure 1.1-1). The communities closest to the mine site include the four communities on Nisga'a Lands: Gitwinksihlkw, Gingolx, Laxgalts'ap and New Aiyansh. These communities and the small rural population on Nisga'a lands are considered to be the Local Study Area (LSA) for describing economic conditions and assessing economic effects.

The broader Regional Study Area (RSA) for describing economic baseline conditions is defined to include five distinct regions and major communities.

- 1. The District Municipality (DM) of Stewart (located in the Kitimat-Stikine Regional District Electoral Area (RDEA) A;
- 2. Kitimat-Stikine RDEA B, including the Village of Hazelton, the DM of New Hazelton and numerous Indian reserves (Gitanmaax 1, Gitsegukla 1, Sik-e-dakh 2, Kispiox 1, Hagwilget 1, Gitwangak 1, Gitanyow 1, Moricetown 1, Bulkley River 19, and Coryatsaqua (Moricetown) 2);
- 3. The Town of Smithers;
- 4. The Terrace Census Agglomeration (CA) which includes the City of Terrace, the rural populations of Kitimat-Stikine RDEA C (Part 1) and RDEA E, and four reserves (Kitsumkaylum 1, Kitselas 1, Kshish 4, and Kulspai 6); and
- 5. The City of Prince Rupert.

These groupings were selected to reflect Statistics Canada census subdivisions and areas that might be called upon to provide labour, goods and services required for mine construction and operation.

The study area includes the LSA and the RSA.







Part of the proposed Project originally included an option for ocean transportation for the moving of molybdenum concentrate from the proposed Project site to shipping facilities in Prince Rupert. The barging option does not now form part of the proposed Project, but the economic baseline information generated for that area has been retained for the purposes of this baseline economic description.

The ocean transportation route would have passed through waters that have traditionally been used by a number of First Nations for a variety of marine-related activities. Five potentially affected First Nations were identified along the barging route: Gitxaala Nation, Lax Kw'alaams Band, Metlakatla First Nation, Kitsumkalum First Nation and Kitselas First Nation (see Figure 1.1-2). While each of the First Nations has numerous reserves in the study area, only seven of these are populated. They include:

- Lax Kw'alaams 1 Reserve (Lax Kw'alaams First Nation);
- S1/2 Tsimpsean 2 Reserve (Metlakatla First Nation);
- Kitsumkaylum 1 Reserve (Kitsumkalem First Nation);
- Kitselas 1, Kshish 4 and Kulspai 6 Reserves (Kitselas First Nation); and
- Dolphin Island 1 Reserve (Gitxaala First Nation).

For describing baseline economic conditions and assessing potential Project effects associated with ocean transportation, information for all reserves listed above has been aggregated, and is reported as being the Transportation Regional Study Area (TRSA). Note that some of the communities in the RSA also fall within the TRSA (the overlap between the RSA and the TSRA is shown in Figure 1.1-2), so there is overlap in some of the statistics.

1.1.1 Economic Base

1.1.1.1 Introduction

The potential economic effects of the proposed Project on communities in the study area will ultimately depend on the capabilities and capacities of businesses to supply the goods and services needed for construction and operation of the proposed Project. This section of the report provides an overview of the broader regional economy and the major development sectors that are currently driving it.

1.1.1.2 Information Sources and Methods

This baseline report draws information from a number of key sources. Much of the information in this section of the report represents a summary of a detailed assessment of the regional economy produced as part of a socio-economic baseline study for the proposed Project that was completed by Rescan Environmental Services Ltd. (Rescan) in 2010.

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Additional information for the other communities in the RSA and the TRSA was taken from the 2006 census (Statistics Canada 2007a), as well as recent community and regional reports from government agencies, community profiles produced by municipalities, community and regional websites, and various economic and social profiles of northern BC.

1.1.1.3 Forestry

Forestry has been a prominent industry in the study area. In 2006, the logging and forestry industries accounted for 7.0 percent (%) of regional employment (BC Stats 2010a). Forestry activities are more focused in the eastern portions of the study area. Logging and forestry industries accounted for 10.4% of employment in New Hazelton, 9.3% of employment in the rural portions of the RD of Kitimat-Stikine and 8.4% of employment in Smithers, but only 3.4% of employment in Prince Rupert. In terms of income, forestry accounted for 32% of income in the Smithers Local Health Area (LHA) in 2005, 19% of income in the Upper Skeena LHA (which includes Hazelton and New Hazelton), 11% of income in the Terrace LHA, 5% in the Prince Rupert LHA and 3% of income in the Nisga'a Nation LHA (BC Stats 2010e).

At one time, nine sawmills, two pulp mills and remanufacturing plants were operating in the study area. However, as a result of issues related to softwood lumber and the 2008/09 global economic downturn, lumber demands and prices have been steadily declining, with the result that many areas along the coast are no longer economical to harvest. As a result, harvesting has virtually stopped in the North Coast Forest District. Skeena Cellulose, which had extensive forest operations in the study area, has closed down most of its operations, including its large sawmill in Terrace, a pulp mill in Prince Rupert and its sawmill in Hazelton. Another major forestry operator, West Fraser, closed its sawmill in Prince Rupert and its EuroCan pulp mill in Kitimat. These mill closures have resulted in extensive job losses and business closures, resulting in changes to the population and demographics of the area (Rescan Environmental Services (Rescan) 2010).

There are expectations that some forestry operations will resume in the near future, and that operations will be linked to emerging forest product markets in China and alternative uses of fibre, such as producing wood pellets for use as a replacement for coal. In 2010, prices improved somewhat and some licencees had reactivated operations (Rescan 2010). A pellet plant has been proposed for Terrace, and Pacific Bio-Energy has purchased the Kitwanga Lumber Company's sawmill. The City of Terrace has acquired a probationary community forest agreement that will allow annual harvests of up to 30,000 cubic metres (m³) of timber on public forest lands in the Kalum Timber Supply Area (TSA). A Non-replaceable Forest Licence (NRFL) awarded to the Lax Kw'alaams Band will allow it to harvest up to 2,000 m³ per year. First Nation tenures have been issued to Lax Kw'alaams, Metlakatla, Kitkatla, and Hartley Bay First Nation communities under their Forest and Range Opportunities (FRO) agreements with the province (Rescan 2010).

Forestry operations in the Smithers area have not been as adversely affected by the economic downturn. West Fraser Mills is still operating its sawmill, planer and whole log



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chipper in Smithers, and there are a number of smaller operations. These include Northern Engineering Wood Products Inc., which has a particleboard mill; Kyahwood Forest Products Ltd., which produces finger-jointed lumber in Moricetown; and Alpine Cedar Products Ltd., which has a shake and shingle mill in Smithers (Rescan 2010). The Town of Smithers and the Village of Telkwa have been issued a five-year probationary community forest agreement to harvest up to 30,000 m³ of timber per year to sustain long-term employment and economic development in the Smithers area (Rescan 2010).

1.1.1.4 Mining

The mining and minerals industry accounted for 3.2% of employment in the study area in 2006, although this ranged from 0.0% in Hazelton and 1.7% in the rural parts of the RD of Kitimat-Stikine, to 6.3% in Smithers and 6.6% in Stewart (BC Stats 2010a). Mining accounted for 9% of income in the Smithers LHA in 2005, and 7% of income in the Terrace LHA, but 2% or less in the Upper Skeena, Prince Rupert and Nisga'a LHAs (BC Stats 2010e).

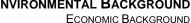
In 2009, mining and oil and gas extraction accounted for 0.4% of businesses in the North Coast Development Region (i.e., Kitimat-Stikine and Skeena-Queen Charlotte regions combined) and 1.2% of businesses in the Nechako Development Region (i.e., Bulkley-Nechako and Stikine RDs) (BC Stats 2010c, 2010d).

There are only a few mines operating in northwest BC; two are located near Smithers. While both the Kemess South and Huckleberry mines are currently operating, both have mined out the majority of their reserves and will close in the next few years, pending the results of exploration for additional reserves or new prospects. The Eskay Creek gold-silver mine north of Stewart closed in April 2008. The recent and upcoming mine closures or slowdowns could result in major job losses.

Despite the potential closures, the area has considerable mining potential, with extensive mineral exploration and development activity currently taking place. In 2009, mining exploration expenditures in BC totalled \$154 million, of which \$65 million (42.2%) occurred in the northwest portion of the province (BC Ministry of Energy, Mines and Petroleum Resources (BC MEMPR) 2010). In addition to the proposed Project, there are more than 10 other sites in development or with proposals submitted for an environmental assessment to the provincial government. These include Ruby Creek, Red Chris, Schaft Creek, Galore Creek, Kutcho Creek, Mount Klappan coal, Kerr-Sulphurets-Mitchell, and Davidson (BC MEMPR 2010). Mining development in the study area will be facilitated by construction of the Northwest Transmission Line that will service new mines and Independent Power Projects (IPPS) in the study area.

1.1.1.5 Fisheries

The fishing and fish products industry employed 4.4% of the regional labour force in 2006 (BC Stats 2010a). While this industry provided some employment in Hazelton (2.3%), almost all employment in this industry occurred in Prince Rupert (12.7%). Important fishery



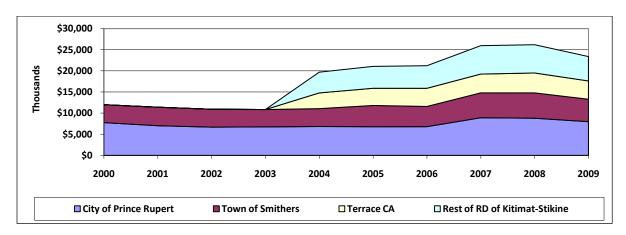


operations in Prince Rupert include three process plants (Canadian Fishing Company, Ocean Fisheries Ltd. and J.S. McMillan Fisheries Ltd.), which process and export salmon, herring, groundfish and shellfish to markets around the world. There is a fourth processing plant (Aero Trading Company) located in Port Edward, and a number of smaller fish processing operations (Rescan 2010).

1.1.1.6 **Tourism**

The North Coast Region has a growing tourism industry and attracts a wide range of visitors who participate in freshwater and saltwater fishing, hunting, hiking, boating, skiing, snowmobiling, and learning about Aboriginal arts and culture. In 2005, tourism accounted for 8% of income in the Prince Rupert LHA, 5% in the Terrace and Smithers LHAs, and 2% of income in the Upper Skeena and Nisga'a Nation LHAs (BC Stats 2010e). Tourism is particularly important in Prince Rupert, which is located on the Alaska Cruise Route and is a mid-route port of call for many cruise ships during their summer cruise between Vancouver, BC and Skagway, Alaska.

Total tourism activity in the study area, as measured in terms of total room revenue, increased by 33% between 2004 and 2008 (see Figure 1.1-3). Total room revenues in 2008 were about \$26.2 million (BC Stats 2010d). However, in 2009, total revenues dropped by 11% and this decline occurred throughout the study area. In 2009, accommodation facilities in Prince Rupert accounted for 34.1% of total room revenues in the study area, while the rest of the RD of Kitimat-Stikine (which includes accommodation facilities in the DM of Kitimat) accounted for 24.7%.



Note: The rest of the RD of Kitimat-Stikine includes the DM of Kitimat as well as communities in the study area

Source: BC Stats (2010d)

Figure 1.1-3: Room Revenue Estimates, 2000 to 2009





1.1.1.7 Major Employers

In its 2006 Labour Market Census, the Skeena Native Development Society (SNDS) reported a total of 63 businesses in Nisga'a Villages. These included 27 privately owned businesses, 19 communally owned businesses and 17 artists (SNDS 2007).

Leading employers in the Terrace area include the Coast Mountain School District (600 employees), Terrace Community Health Council (413 employees), Skeena Cellulose (170 employees), Northwest Community College (165 employees), Canada Safeway (150 employees), and the City of Terrace (146 employees) (Rescan 2010).

In the Smithers area, the largest individual employers include the Northern Health Authority (400 employees), Pacific Inland Resources (191 employees) and Canada Safeway (115 employees). Other important employers include the municipal, provincial and federal governments; the school district and college; and the manufacturing and retail sectors (Rescan 2010).

Some of the most significant individual employers in Prince Rupert include the Canadian Fish Company (650 employees), School District No. 52 (450 employees), the Northern Health Authority (420 employees) and the City of Prince Rupert (232 employees). Other major employers include the provincial and federal governments, Northwest Community College, Prince Rupert Grain, Maher Terminals, and the Port of Prince Rupert (Rescan 2010).

Major industrial and commercial employers in Stewart include Arrow Transportation Systems Inc., Hyder Water Works, Soucie Construction and Stewart Bulk Terminal (Stewart and Hyder International Chamber of Commerce 2010).

In the Hazelton communities, which include New Hazelton, Hazelton, the Hagwilget and Gitanmaax First Nations, and two unincorporated areas, the major employers are the Wrinch Memorial Office (135 employees), School District No. 82 (128 employees), the Gitxsan Chief's Office (43 employees) and the Gitxsan Health Society (31 employees). Other large employers include McDonalds Grocery Store; Gitxsan Child and Family Services Society; Service BC; BC Ministry of Forests, Mines and Lands; Bulkley Valley Credit Union; and the Royal Bank of Canada (Village of Hazelton 2010).

1.1.1.8 Economic Dependency and Diversity

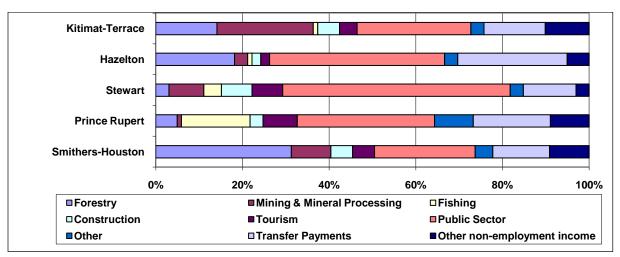
BC Stats uses a number of indicators to classify the structure and diversity of regional economies (Horne 2009). One measure is income dependency, which estimates the extent to which specific industries directly and indirectly generate incomes for particular regions. The income dependencies for the five regions in the study area are shown in Figure 1.1-4. It shows that the Smithers-Houston and Hazelton regions are more dependent on income from forestry than the other regions, while the Kitimat-Terrace region is the most reliant on income from mining and mineral processing (this reflects the relatively high employment at the aluminum smelter in Kitimat). Fishing is an important source of income only in the







Prince Rupert region. Income from transfer payments is particularly important in the Hazelton region, and both the Stewart and Hazelton regions are highly reliant on income from public sector employment.



Note: Percent income dependency (after tax incomes)

Source: Horne (2009)

Figure 1.1-4: Regional Income Dependencies, 2006

Overall, income dependence on resource industries (forestry, mining and mineral processing, and fishing) is very high for both the Smithers-Houston region (where these industries accounted for 40% of income in 2006) and the Kitimat-Terrace region (where resource industries accounted for 37% of income). In the other three regions, resource industries accounted for 22% or less of total income.

The second measure is regional economic diversity. BC Stats calculates a diversity index (DI) for each region that ranges from zero (total dependence on a single sector) to 100 (equal dependence on all sectors). Table 1.1-1 shows the DI scores for the five local regions. It shows that the Stewart region is the least economically diverse (DI=51) because of its high dependence on income from the public sector (see Figure 1.1-4). In contrast, the Kitimat-Terrace region has a DI of 70, suggesting much greater economic diversity. Other regions with relatively high economic diversity include Prince Rupert and Smithers-Houston.



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Table 1.1-1: Regional Diversity Indices

Local Regions	2006 Diversity Index	2006 Forest Vulnerability Index		
Prince Rupert	69	6		
Kitimat-Terrace	70	20		
Hazelton	57	38		
Stewart	51	7		
Smithers-Houston	67	50		

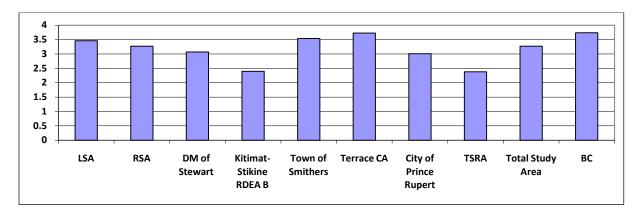
Source: Horne (2009)

BC Stats also provides a Forest Vulnerability Index (FVI) that indicates the vulnerability of each local area to potential downturns in the forest sector. Communities that have a high dependence on income from the forest sector and low economic diversity are considered to be the most vulnerable (FVI=100). Table 1.1-1 shows the FVI values for the five regions. It shows that the Smithers-Houston region (FVI=50) would be most economically vulnerable to a decline in the forest industry. The regions with the lowest forest vulnerability include Prince Rupert and Stewart.

Another measure of economic diversity is comparing the numbers of workers in basic industries (such as agriculture, forestry, mining, manufacturing and construction) to the number of workers in non-basic industries (including retail and wholesale trade as well as business and other services industries, and public sector employment). Communities with a higher ratio of non-basic to basic employment are usually more diverse and can offer a wide variety of services in support of new economic development. Communities with lower ratios tend to have less developed economies and a more limited ability to provide all the goods and services required to support new economic development. Figure 1.1-5 shows that BC had a ratio of 3.74 non-basic jobs for every basic job. The Terrace CA and Smithers also had high non-basic / basic employment ratios (3.73 and 3.54, respectively). In contrast, the TRSA only had 2.38 non-basic jobs for every basic job. The RD of Kitimat-Stikine also had low economic diversity and a low non-basic / basic employment ratio (2.40). The ratio for the LSA was quite high (3.46) and, in this case, may be because of a lack of employment in basic industries and high reliance on public sector employment.







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study

Area; TRSA - Transportation Regional Study Area

Source: Computed using information from Statistics Canada (2007a)

Figure 1.1-5: Non-Basic / Basic Employment Ratios, 2006

1.1.1.9 Summary

Overall, available information on employment indicates that there are some important differences among the various communities in the study area. While Terrace has high employment diversity, much of this employment is related to health and education, and other service industries. While Terrace is not considered to be highly vulnerable to a downturn in the forest industry, the recent closure of many forestry-related businesses has meant that it would be vulnerable to jobs losses in other industries, and would benefit from any economic development that provides basic employment that supports its large service sector.

In contrast, Stewart is highly reliant on income from public sector employment but has a reasonably large non-basic to basic employment ratio that may be because of a lack of employment in basic industries. While Stewart is partly dependent on income from mining and mineral processing, closure of the Eskay mine has further narrowed the economic base of the community.

The Smithers-Houston region appears to have a highly diversified economy in terms of employment, but is highly income dependent on the forest industry, and would be particularly vulnerable to further downturns in the forest economy. Economic development in mining or other industries would diversify and help stabilise the economy of this area.

While communities in the Hazelton area are also dependent on the forest industry, and vulnerable to loss of forestry-based employment, these communities are also highly reliant on public sector income and transfer payments. Additional employment in non-forest industries would help stabilise economic conditions in Hazelton and the surrounding communities.



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Prince Rupert has a highly diversified economy, making it the least vulnerable to jobs losses in forestry. Prince Rupert is more reliant on fishing, tourism and transportation services than the other regions. This community has little reliance on income from mining and mineral processing, but could benefit from new mining development in the region by supplying goods and services to support this activity.

1.1.2 Labour Force

1.1.2.1 Introduction

Construction and operations of the proposed Project will create some employment opportunities for residents of the LSA and RSA. This section of the report examines regional labour availability in terms of the overall size of the workforce, labour force participation, unemployment and labour force experience.

1.1.2.2 Information Sources and Methods

This baseline report draws information from a number of key sources. Much of the information has been taken from a socio-economic baseline study for the proposed Project completed by Rescan in 2010. This section includes baseline information for the communities of Prince Rupert, Terrace, Smithers as well as the individual communities on Nisga'a lands. Additional information for the other communities in the RSA and the TRSA was taken from the 2006 census (Statistics Canada 2007a, 2007b), as well as recent community and regional reports from government agencies, community profiles produced by municipalities, community and regional websites, and various economic and social profiles of northern BC.

It should be noted that census data are incomplete for some communities, especially for some of the First Nation populations. Labour force data are unavailable for the community of Laxgalts'ap in the LSA. This community accounts for 24.7% of the LSA population, so reported information for the LSA understates the overall labour force.

Labour force information is also not available for the Bulkley River 19 Reserve, but this community only accounts for 2.2% of the population. Labour force data are not available for three of the reserves in the TRSA (Lax Kw'alaams 1, Kitselas 1 and Kshish 4), which account for 46.5% of the population of the TRSA, so the reported labour force statistics seriously understate the size of the actual labour force.

1.1.2.3 Labour Force

In 2006, there were 23,470 people in the study area labour force. This number represents the number of people who were either working or were actively seeking work. It accounts for 1.1% of the total labour force in BC.

Estimates of the labour force in each segment of the regional population in 2006 are shown in Table 1.1-2. It shows that the LSA accounted for 2.8% of the regional labour force, while



the TRSA accounted for another 1.4%. The vast majority of the labour force (96.4%) lived in the RSA, primarily in the Terrace CA (41.6%) and in Prince Rupert (29.6%).

Table 1.1-2 also shows that Aboriginal people accounted for 28.0% of the regional labour force. Aboriginal people accounted for 95.5% of the labour force in the LSA, 100% of the labour force in the TRSA and 25.4% of the labour force in the RSA. The largest numbers of Aboriginal people in the labour force were found in Prince Rupert, Kitimat-Stikine RDEA B and the Terrace CA.

Table 1.1-2: Labour Force in the Local Study Area, Regional Study Area, Transportation Regional Study Area and British Columbia, 2006

	Total		Aboriginal		Non-Aboriginal	
Population Segment	Count	Percent %	Count	Percent %	Count	Percent %
LSA	665	2.8	635	95.5	30	4.5
RSA	22,630*	96.4	5,750	25.4	16,880	74.6
DM of Stewart	305	1.3	10	3.3	295	96.7
Kitimat-Stikine RDEA B	2,780	11.8	1,685	60.6	1,095	39.4
Town of Smithers	2,830	12.1	345	12.2	2,485	87.8
Terrace CA	9,765	41.6	1,650	16.9	8,115	83.1
City of Prince Rupert	6,950	29.6	2,060	29.6	4,890	70.4
TRSA	320	1.4	320	100.0	0	0.0
TOTAL STUDY AREA *	23,470	100.0	6,565	28.0	16,905	72.0
British Columbia	2,226,380		91,535	4.1	2,134,845	95.9

Note: Labour force includes people working or actively seeking work as of Census Day 2006; CA - Census Agglomeration; DM - District Municipality; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

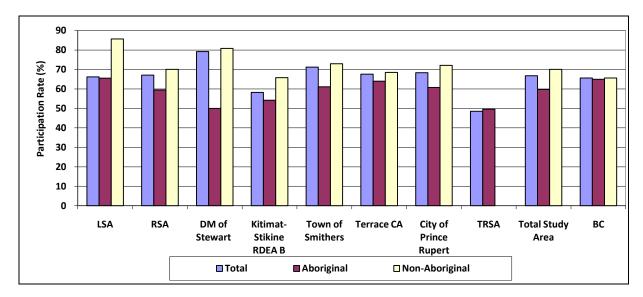
* There is some overlap between communities in the RSA and TRSA

Source: Statistics Canada (2007a, 2007b)

The size of the labour force is determined by two factors: the number of people aged 15 years and older (the adult population); and the labour force participation rate. The labour force participation rate represents the percentage of the adult population that was either working or actively seeking work. The labour force participation rates for all segments of the regional population are presented in Figure 1.1-6.







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study

Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-6: Labour Force Participation in the Local Study Area, Regional Study Area, Transportation Regional Study Area and BC, 2006

The labour force participation rate for the study area (66.8%) was slightly higher than the overall BC rate (65.6%). However, the regional labour participation rate for Aboriginal people (59.7%) was below the provincial average (65.0%) for Aboriginal people. Figure 1.1-6 also shows that the TRSA had the lowest labour force participation rate in the entire study area (less than 50%). Labour force participation rates for Aboriginal people in the DM of Stewart and in Kitimat-Stikine RDEA B were less that 60%. The labour force participation rate for the LSA was 66.2%.

1.1.2.4 Unemployment

In 2006 there were 3,240 unemployed people in the study area. Of these, 6.3% lived in the LSA, 4.5% in the TRSA, and the balance (90.6%) in the RSA. Table 1.1-3 shows that the largest number of unemployed people were found in the Terrace CA, City of Prince Rupert and Kitimat-Stikine RDEA B.



Table 1.1-3: Unemployment in the Local Study Area, Regional Study Area, Transportation Regional Study Area and British Columbia, 2006

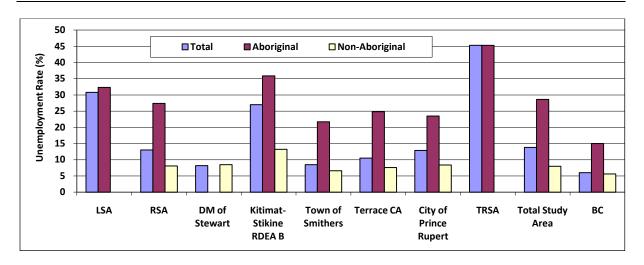
Population Segment	Total		Aboriginal		Non-Aboriginal	
	Count	Percent %	Count	Percent %	Count	Percent %
LSA	205	6.3	205	100.0	0	0.0
RSA	2,935	90.6	1,575	53.7	1,360	46.3
DM of Stewart	25	0.8	0	0.0	25	100.0
Kitimat-Stikine RDEA B	750	23.1	605	80.7	145	19.3
Town of Smithers	240	7.4	75	31.3	165	68.8
Terrace CA	1,025	31.6	410	40.0	615	60.0
City of Prince Rupert	895	27.6	485	54.2	410	45.8
TRSA	145	4.5	145	100.0	0	0.0
TOTAL STUDY AREA	3,240	100.0	1,880	58.0	1,360	42.0
British Columbia	133,615		13,685	10.2	119,930	89.8

Note: Number of unemployed people as of Census Day in 2006; Labour force includes people working or actively seeking work as of Census Day 2006; CA - Census Agglomeration; DM - District Municipality; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Within the study area, 58.0% of unemployed people were Aboriginal. Comparing total workforce figures from Table 1.1-2 with total unemployed figures from Table 1.1-3 reveals that regional Aboriginal people had an unemployment rate of 28.6% in 2006; this was nearly double the unemployment rate for Aboriginal people in all of BC (15.0%) and was more than triple the unemployment rate for non-Aboriginal workers in the study area (8.0%). The largest numbers of unemployed Aboriginal people were found in Kitimat-Stikine RDEA B, followed by the City of Prince Rupert and the Terrace CA.

The 2006 unemployment rates for the various communities are provided in Figure 1.1-7. Overall, 13.8% of study area residents were unemployed in 2006, and this was more than twice the provincial average (6.0%). Within the study area, the highest unemployment rate was found in the TRSA (45.3%). The next highest rates of unemployment were reported by the Aboriginal population in Kitimat-Stikine RDEA B (35.9%), followed by the LSA (30.8%). For the non-Aboriginal population, unemployment rates in the study area were generally less than 10%, with the exception of Kitimat-Stikine RDEA B where 13.2% of the non-Aboriginal population was unemployed.



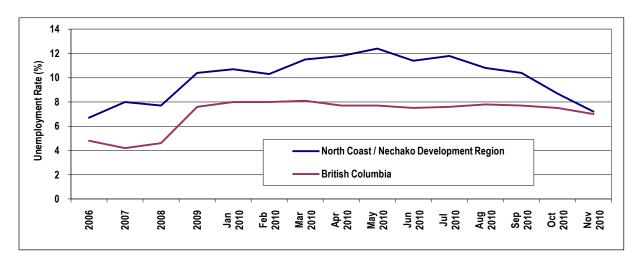
Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study

Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-7: Unemployment Rates in the Local Study Area, Regional Study Area, Transportation Regional Study Area and British Columbia, 2006

Since 2006 there has been a gradual increase in unemployment rates throughout BC. Between 2007 and 2009, the rate of provincial unemployment nearly doubled, increasing from 4.2% to 7.6%, and has remained between 7.5% and 8.1% for much of 2010 (see Figure 1.1-8). The province experienced a slight decrease in unemployment in November 2010.



Note: Monthly data for 2010 and unadjusted three-month moving averages

Source: BC Stats (2010c)

Figure 1.1-8: Unemployment Rates in the North Coast / Nechako Development Region, 2006 to 2010

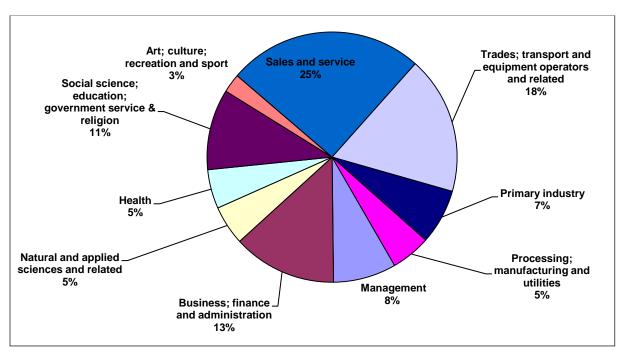




More recent unemployment data are not available for the individual communities within the study area. However, all the study area communities are located in the North Coast / Nechako Development Region, and unemployment rates for that region are also provided in Figure 1.1-8. In 2006, the unemployment rate for the study area (13.8%) was double the 6.7% rate of unemployment reported for the North Coast / Nechako Development Region. The unemployment rate for North Coast / Nechako Development Region climbed to a high of 12.4% in May 2010, but gradually declined to 7.0% in November 2010. The reasons for this recent decline are unknown. The average unemployment rate for the North Coast / Nechako Development Region in 2010 is 10.6%, which is 3.9 percentage points higher than in 2006. For communities in the study area, this information suggests that the rate of unemployment in 2010 could be as high as 17.7%.

1.1.2.5 Labour Force Experience

The experience and qualifications of the regional labour force can be described in terms of their occupations and their industry of employment. Figure 1.1-9 shows that 25% of the labour force was employed in sales and service occupations, followed by 18% in trades occupations and as transportation and equipment operators. Other important occupations in the study area included business, finance and administration (13%), and social sciences, education, government services and religion (11%).



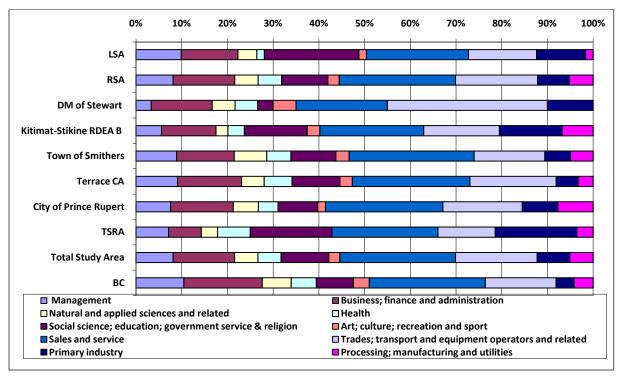
Source: Statistics Canada (2007a)

Figure 1.1-9: Labour Force by Occupation in the Study Area, 2006

Figure 1.1-10 shows the labour force by occupation for each of the population segments in the study area. In general, the occupational profiles for the individual communities



resembled the occupational mix of the study area, especially in the larger communities (Prince Rupert, the Terrace CA and Smithers). Notable exceptions were that the LSA had higher percentages of people employed in occupations related to social sciences, education, government services and religion, and in primary industry (which includes occupations in agriculture, forestry operations, mining, oil and gas extraction, and fishing), but lower percentages of people employed in health occupations. The TRSA had the highest percentage of people employed in primary industry, but relatively lower percentages of employment in business, finance, administration, and trades, transport and equipment operation. Occupations in trades, transport and equipment operation accounted for 35.0% of employment in Stewart, while Kitimat-Stikine RDEA B had higher percentages of people employed in occupations related to primary industry.



Source: Statistics Canada (2007a, 2007b)

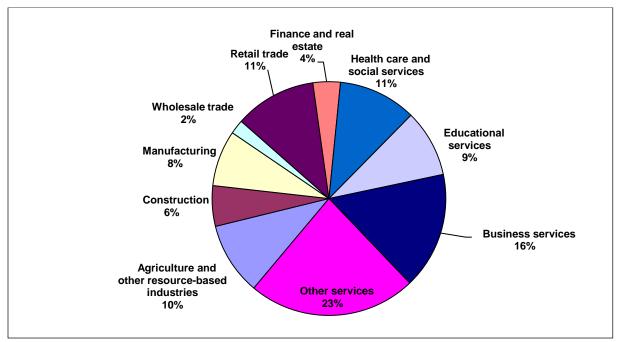
Figure 1.1-10: Labour Force by Occupation in the Local Study Area, Regional Study Area, Transportation Regional Study Area and British Columbia, 2006

Overall, the study area had 1,610 people employed in occupations related to primary industry and 4,025 in trades, transport and equipment operation occupations.

The industry experience of the regional labour force is shown in Figure 1.1-11. It shows that the greatest percentage of regional employment occurred in the "other" service industries; 23% of the regional workforce was employed in repair and maintenance, personal services and public administration. Other industries that employed large numbers of people in the study area include business services (16%), retail trade (11%), and health care and social services (11%).







Source: Statistics Canada (2007a)

Figure 1.1-11: Labour Force by Industry in the Study Area, 2006

Figure 1.1-12 shows the labour force by industry for each of the population segments in the study area. It shows that the "other" services industry accounted for more than 20% of employment in all segments of the population, but accounted for much higher percentages of employment in Stewart (38.6%), the TRSA (33.6%) and the LSA (33.3%). While business service industries accounted for 18.6% of employment in Prince Rupert and 17.5% of employment in Stewart, very low percentages were reported in the LSA (8.6%) and TRSA (0.0%).

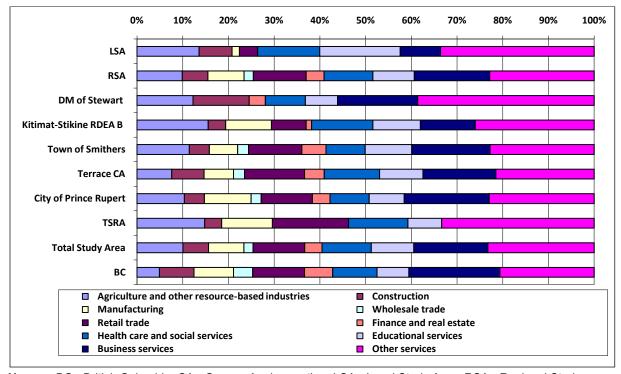
About 10.1% of the regional workforce was employed in agriculture and other resource-based industries (primarily the forest and mining and mineral products sectors); this is more than double the provincial rate of employment in this industry (4.9%). However, this industry accounted for 15.6% of employment in Kitimat-Stikine RDEA B, 14.8% in the TRSA, and 13.6% in the LSA. In total, 2,270 residents of the study area were employed in resource-based industries.

Another 1,265 residents of the study area worked in construction; this represents 5.6% of the regional workforce. Construction accounted for 12.3% of employment in Stewart, 7.2% in the LSA and 7.1% in the Terrace CA.

Overall, 11.3% of regional residents worked in retail trade. However, there was very limited employment in these industries in Stewart (0.0%), the LSA (4.0%) and Kitimat-Stikine RDEA B (7.6%). Health industries employed 10.8% of regional residents, but higher percentages were reported in the LSA (13.6%), Kitimat-Stikine RDEA B (13.4%) and the



TRSA (13.0%). The smallest percentage of the workforce employed in health industries occurred in Prince Rupert and Smithers, each at 8.6%.



Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-12: Labour Force by Industry in the Local Study Area, Regional Study Area, Transportation Regional Study Area and British Columbia, 2006

1.1.2.6 Summary

Compared to BC, residents of the study area were just as likely to participate in the labour force, but were more likely to be unemployed. They were also more likely to be employed in primary industries (forestry, fishing and mining) or in the "other" services industry, which includes public administration. While Aboriginal people in the study area were just as likely to participate in the labour force, their rate of unemployment was three times higher than the regional average.

1.1.3 Income

1.1.3.1 Introduction

Construction and operation of the proposed Project will create some employment opportunities for residents of the LSA and RSA, and provide additional incomes. This section of the report describes median earnings by residents of the study area, the



composition of total incomes, the median incomes of families and households, and the percentage of households considered as having low incomes.

1.1.3.2 Information Sources and Methods

Information on earnings and income were taken from the 2006 census (Statistics Canada 2007a). The reported data are for the 2005 calendar year. It should be noted that earnings data were not available for some communities:

- Gitwinksihlkw and Laxgalts'ap villages in the LSA;
- Sik-e-dakh 2, Hagwilget 1, Moricetown 1, Bulkley River 19, and Coryatsaqua (Moricetown) 2 reserves in Kitimat-Stikine RDEA B;
- Kitselas 1, Kshish 4 and Kulspai 6 reserves in the Terrace CA and TRSA; and
- Lax Kw'alaams 1 and S1/2 Tsimpsean 2 reserves in the TRSA.

Thus, reported information may not be accurate.

Some more recent income and taxation information was obtained from BC Stats (2010b).

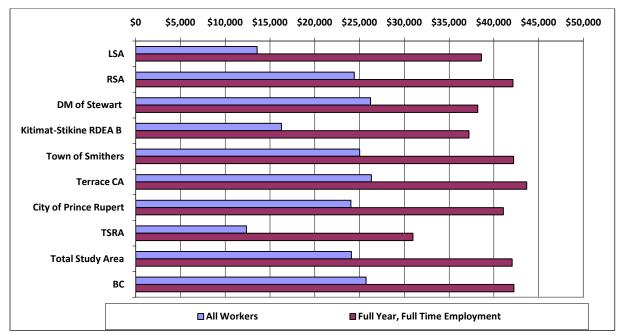
1.1.3.3 Earnings

Median earnings in the study area in 2005 averaged \$24,077; this was 6.3% less than the median earnings reported by all British Columbians (\$25,722). As shown in Figure 1.1-13, median incomes for all workers ranged from \$12,368 in the TRSA and \$13,566 in the LSA to \$26,324 in the Terrace CA.









Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

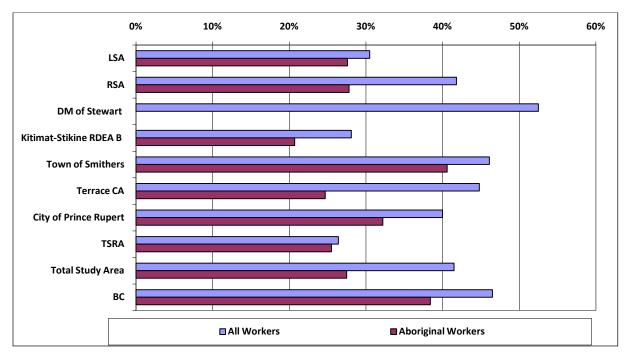
Figure 1.1-13: Median Earnings of All Workers and Full Time Workers in the Study Area, 2005

Only 41.5% of workers in the study area were employed full year, full time. This percentage was below the BC average of 46.5%. Figure 1.1-13 shows that people working full year, full time in 2005 had median earnings averaging \$42,042. This was nearly identical to the provincial median (\$42,230). People working full year, full time in the TRSA had average median earning of \$30,958, while those in the Terrace CA had median earning of \$43,661. Residents of the LSA had median earnings of \$38,688, which was 8% below the study area average.

Figure 1.1-14 shows the percentage of the study area population that worked full year, full time. The highest percentages of full-time workers was reported in Stewart (52.5%), followed by Smithers (46.1%) and the Terrace CA (44.8%). Only 26.4% of workers in the TRSA were employed full year, full time. Other areas with low percentages of full-year, full-time employment included Kitimat-Stikine RDEA B (28.1%) and the LSA (30.5%).







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-14: Percent of People Working Full Year, Full Time in the Study Area, 2005

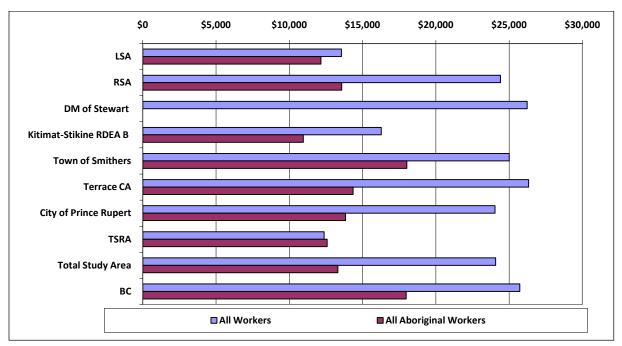
Figure 1.1-14 also shows the percentage of the Aboriginal study area population that worked full year, full time. Overall, 27.5% of Aboriginal workers in the study area were employed full year, full time and this was lower than the BC average of 38.4%. The percentage of Aboriginal people working full year, full time was typically lower than for the total population. The highest percentage of full-time work by Aboriginal people was reported in Smithers (40.6%), and this was slightly less than for the overall workforce (46.1%). The largest difference was reported in the Terrace CA, where 24.7% of Aboriginal people were employed full year, full time, compared to 44.8% of the total workforce. The lowest percentage of Aboriginal people working full time was in Kitimat-Stikine RDEA B (20.7%). In the TRSA, 25.5% of Aboriginal people were employed full time and this was slightly below the overall total (26.4%). Similar results were reported in the LSA where 27.6% of Aboriginal people were employed full time.

Not only were Aboriginal people less likely to work full year, full time, they also had lower earnings. Figure 1.1-15 shows median earnings for both Aboriginal workers and the total population in each of the population segments in the study area. Overall, Aboriginal people in the study area reported average median earnings of \$13,308. This was 45% less than for the total population and 26% less than median earnings reported by all Aboriginal people in BC. The biggest difference in earnings between Aboriginal people and the general population occurred in Terrace CA, where median earnings for Aboriginal people were only 54.5% of the median earnings reported by all workers. The earnings differentials in the





TRSA and LSA were quite small (less than 10%). In Smithers, the Aboriginal people earned 28.0% less than the general population; this increased to 32.7% in Kitimat-Stikine RDEA B and 42.4% in Prince Rupert.



Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

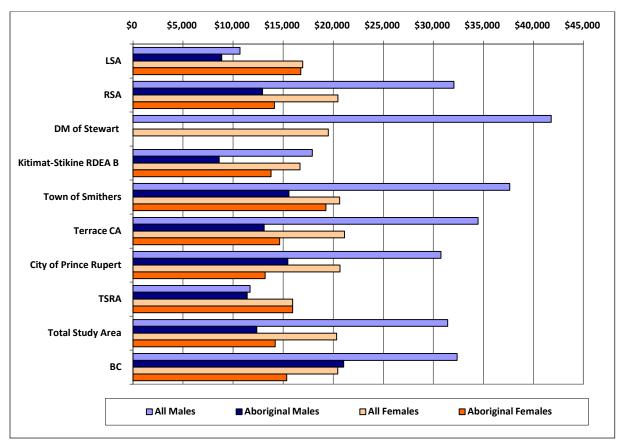
Source: Statistics Canada (2007a, 2007b)

Figure 1.1-15: Median Earnings of All Workers and Aboriginal Workers in the Study Area, 2005

There were also differences in median earnings between males and females in all segments of the population. The average median earnings for females in the RSA in 2005 was \$20,349, and this was 64.7% of the average median earnings for males (\$31,432). For the Aboriginal population, average median earnings for females (\$14,204) were higher than for males (\$12,377). Figure 1.1-16 shows median income by gender for each of the segments of the study area population. It shows that, in general, females in the study area had median earnings that were 33% to 53% lower than males. The exceptions were the LSA (median earnings for females were 58.7% higher than for males), the TRSA (females earned 36.1% more than males), and Kitimat-Stikine RDEA B (females only earned 6.8% less than males). The largest earnings difference was reported in Stewart, where median earnings for females were 53.3% lower than for males.







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

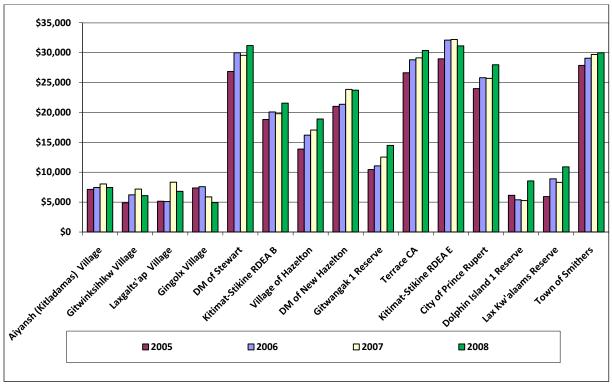
Figure 1.1-16: Median Earnings by Gender in the Study Area, 2005

For the Aboriginal population, median earnings for females were 14.7% higher than median earnings for males. The highest earnings differentials were reported in the LSA, where median earnings for females were 89.2% higher, and Kitimat-Stikine RDEA B, where median earnings for females were 60.0% higher. In Smithers, Aboriginal females earned 23.7% more than Aboriginal males and this difference dropped to 11.8% in the Terrace CA. Prince Rupert was the only community where median earnings for Aboriginal males were higher than for Aboriginal females; males earned 14.7% more than females.

Since 2005 there has been an increase in median employment earnings in most of the study area communities. Figure 1.1-17 shows median employment earnings reported for study area communities for 2005 to 2008, as reported by BC Stats (2010b) using taxation data from Revenue Canada. On average, median employment income in the study area increased by 20% over three years. Small percentage increases were reported in the larger communities: Stewart (16.1%), Prince Rupert (16.7%), Terrace (14.0%) and Smithers (7.7%). As shown in Figure 1.1-17, people in these communities all had median incomes between \$25,000 and \$30,000 for most of the period from 2005 to 2008.







Source: BC Stats (2010b)

Figure 1.1-17: Median Employment Income for Study Area Communities, 2005 to 2008

Larger percentage increases were reported in Laxgalts'ap Village (32.7%), Village of Hazelton (36.3%), Dolphin Island Reserve (39.2%), and Lax Kw'alaams Reserve (84.0%). It is partly because these communities had such low median employment incomes that the increases were relatively large. Figure 1.1-17 shows that median employment incomes in the Nisga'a Villages (Aiyansh [Kitladamas], Gitwinksihlkw, Laxgalts'ap and Gingolx) remained well below \$10,000 from 2005 to 2008, and the median income in Gingolx Village actually dropped by 33.4% between 2005 and 2008.

1.1.3.4 Income

Earnings are one component of income. Individuals can also obtain income through government transfers and other sources, such as investments. Figure 1.1-18 shows that, in the overall study area, 76.2% of income came from earnings, 15.2% from government transfers and 8.7% from other sources. Regional reliance on income from government transfers is higher that the BC average (10.7%). Within the study area, the population segments with the highest reliance on income from government transfers included the TRSA (29.1% of income), Kitimat-Stikine RDEA B (24.6%) and the LSA (22.9%).







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-18: Composition of Income in the Study Area, 2005

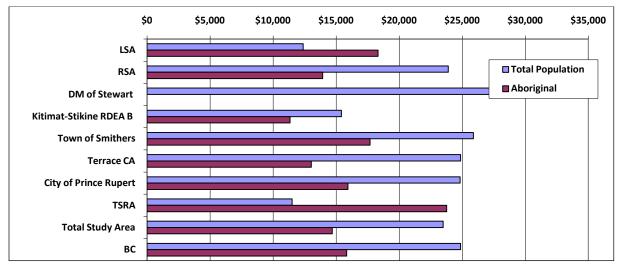
In contrast, income from government transfers accounted for only 11.0% of income in Stewart, 12.1% in Smithers, 14.1% in Terrace and 15.4% in Prince Rupert. It should be noted that for Aboriginal residents of the study area, 29.4% of annual income came from government transfers (which compares to 15.2% for all study area residents, as noted above).

In 2005, the median income for residents of the study area averaged \$23,485; this was 5% less than the BC average. Figure 1.1-19 shows that median incomes ranged from a low of \$11,509 in the TRSA and \$12,385 in the LSA, to highs of \$25,884 in Smithers and \$29,991 in Stewart. The median income for Aboriginal people in the study area is also shown in Figure 1.1-19. Overall, the median income for Aboriginal people was 37.4% lower than for the general population. The largest differences in median incomes were found in the Terrace CA, where the median income for Aboriginal people was 47.6% lower. This income differential for Aboriginal people dropped to 35.8% in Prince Rupert, 31.6% in Smithers and 26.5% in Kitimat-Stikine RDEA B. In the TRSA and LSA, the median income for Aboriginal people was greater than for the general population. In the TRSA, the median income for Aboriginal people was more than double the median income for the general population. The median income for Aboriginal people in the LSA was 48.0% higher than for the general population.



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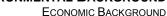


Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

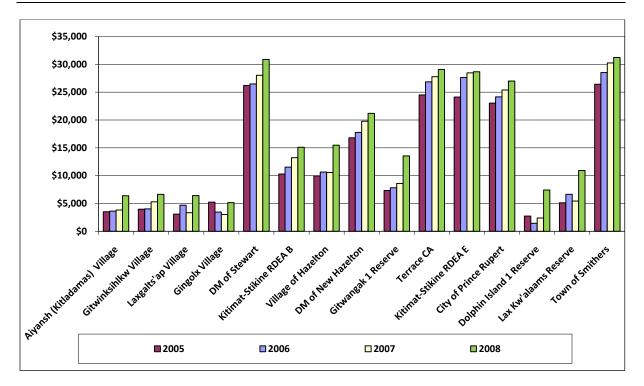
Source: Statistics Canada (2007a, 2007b)

Figure 1.1-19: Median Incomes for Residents of the Study Area, 2005

Between 2005 and 2008, median income in the study area communities increased by 22.0% (BC Stats 2010b). Figure 1.1-20 shows that, for residents of all the larger communities (Prince Rupert, Terrace, Smithers and Stewart), the three-year increase in income ranged between 17.2% and 18.6%.







Source: BC Stats (2010b)

Figure 1.1-20: Median Income for Study Area Communities, 2005 to 2008

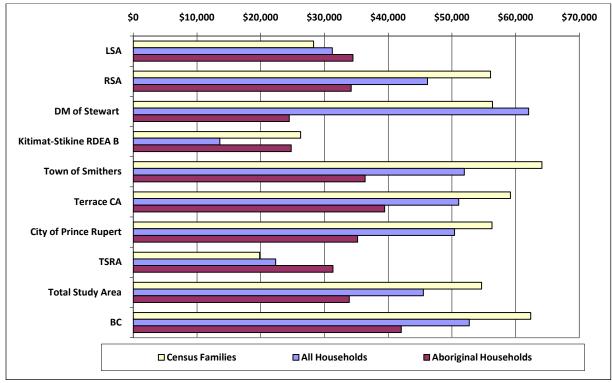
Much larger increases in median incomes occurred in the smaller communities, and this is because these communities had very low incomes in 2005. While residents of the larger communities had median incomes of between \$20,000 and \$30,000 for most of the four years, the median income in the smaller communities was typically less than \$15,000 and, in the case of the Nisga'a Villages and Dolphin Island 1 reserve, was less than \$10,000 for most of the period from 2005 to 2008. The largest increases in median income, in percentage terms, were reported for Dolphin Island 1 reserve (171.4%), Lax Kw'alaams reserve (108.9%) and Laxgalts'ap Village (108.9%). In contrast, residents of Gingolx Village saw the median income drop by 1.6% between 2005 and 2008.

1.1.3.5 Family and Household Incomes

Census information describing the median incomes of families and households in the study area and for Aboriginal households is summarised in Figure 1.1-21. Households differ from families because they include single-person households. The figure shows that the median family income in the study area was \$54,656, the median household income averaged \$45,510, while the median income for Aboriginal households was \$33,893.







Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-21: Family and Household Median Income in the Study Area, 2005

The lowest family and household incomes were reported in Kitimat-Stikine RDEA B; the median family income was 51.9% less than the study area average median value, while median household incomes were 70.2% below the regional average median value. Low family and household incomes also occurred in the TRSA and LSA. In the TRSA, the family and household median incomes were 50.9% to 63.7% lower than the study area average, while they were 31.4% to 48.2% lower in the LSA. The highest median family income was reported in Smithers (\$64,124); the highest median household income was reported in Stewart (\$62,038). In general, the median income in Aboriginal households was 25.5% less than for all households in the study area. The largest disparity in household incomes occurred in Stewart, where the median income for Aboriginal households was 60.5% less than the community average. In some population segments, median incomes for Aboriginal households exceeded the median incomes reported by all households. These segments include Kitimat-Stikine RDEA B, where the median income of Aboriginal households was 82.6% higher, the TRSA (40.2% higher) and the LSA (10.4% higher).

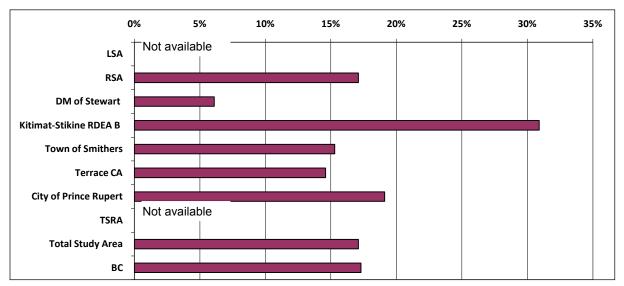
1.1.3.6 Incidence of Low Income

Figure 1.1-22 shows the percentage of households in each community that are considered to have low incomes. Low income is defined as families or persons not in economic families





that spend 20% more than average of their before tax income on food, shelter and clothing. This information is not reported for Aboriginal communities. The data indicate that, overall, 17.1% of households in the study area have low incomes; this is slightly below the provincial average (17.3%). Within the study area, Kitimat-Stikine RDEA B had the highest incidence of households with low income (30.9%). However, only 6.1% of households in Stewart were considered to have low incomes.



Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-22: Percentage of Persons in Private Households with Low Income (Before Tax), 2008

1.1.3.7 Summary

The assessment of income information indicates that residents of the larger communities in the study area enjoyed earnings and incomes that were relatively close to the provincial average. People living in the smaller communities had lower earnings and income, while Aboriginal residents throughout the study area had earnings and incomes that were well below the regional and provincial averages.

1.1.4 Labour Force Qualifications

1.1.4.1 Introduction

Construction and operation of the proposed Project will create some employment opportunities for residents of the LSA and RSA. The potential for employment of regional residents will ultimately depend on their education and qualifications. This section of the report summarises the educational attainment of regional residents.



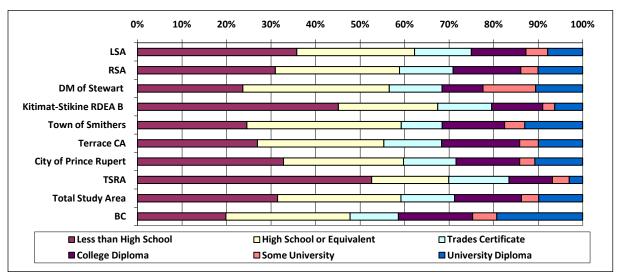


1.1.4.2 Information Sources and Methods

Information on educational attainment was obtained from the 2006 census (Stats Can 2007a).

1.1.4.3 Educational Attainment

Figure 1.1-23 summarises the educational attainment of people aged 15 years and older. It shows that 31.5% of the study area had less than a high school education and this was much higher than the BC average (19.9%).



Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-23: Educational Attainment of People Aged 15 Years and Older in the Study Area, 2008

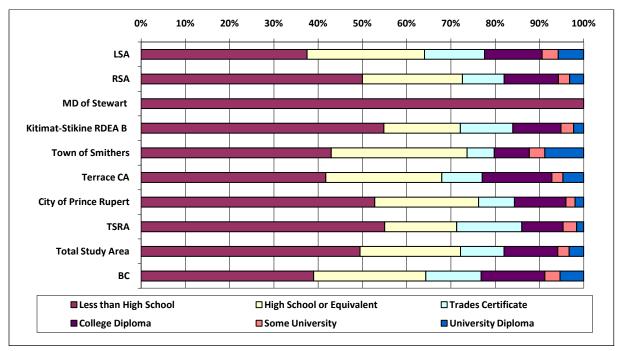
The lowest levels of educational attainment were found in the TRSA, where 53.0% of residents had less than a high school education, and Kitimat-Stikine RDEA B, where 45.4% had not completed high school. The lowest percentage of people with less than a high school education was found in Stewart and Smithers. About 12.0% of the study area population had a trades certificate or completed an apprenticeship. This percentage was relatively consistent throughout the study area, ranging from 9.2% in Smithers to 13.6% in the TRSA. Another 9.9% of the regional population had a university degree or diploma. Smithers had the highest percentage of people with university degrees (13.0%), but this dropped to 6.3% in Kitimat-Stikine RDEA B and 3.0% in the TRSA.

Aboriginal people in the study area had lower levels of educational attainment. Figure 1.1-24 shows that 49.4% of Aboriginal people had not completed high school. This includes all of the Aboriginal residents of Stewart; more than 50% of Aboriginal people living in Kitimat-Stikine RDEA B, Prince Rupert and the TRSA; and more than 40% of Aboriginal





people in Smithers and the Terrace CA. The LSA had the highest level of educational attainment, with only 37.3% of Aboriginals residents not having completed high school.



Note: BC - British Columbia; CA - Census Agglomeration; LSA - Local Study Area; RSA - Regional Study Area; TRSA - Transportation Regional Study Area

Source: Statistics Canada (2007a, 2007b)

Figure 1.1-24: Educational Attainment of Aboriginal People Aged 15 Years and Older in the Study Area, 2008

Only 9.9% of the Aboriginal population in the study area had a trades certificate or had completed an apprenticeship. This percentage ranged from 6.1% of Aboriginal people in Smithers to 14.5% in the TRSA. Only 3.3% of the regional Aboriginal population had a university degree or diploma. Smithers had the highest percentage of Aboriginal people with university degrees (8.8%), while 5.7% of residents of the LSA had a university education.

1.1.4.4 Summary

In general, residents of the study area have lower levels of educational attainment than the provincial average, with nearly one third of the total population and nearly half of the Aboriginal population not having completed high school. About 12.0% of the total population and 9.9% of the Aboriginal population have trades certificates or apprenticeships.



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1.1.5 Economic Prospects

1.1.5.1 Introduction

The extent to which construction and operation of the proposed Project will create employment opportunities for residents of the LSA and RSA will partly depend on competing demands for labour from other economic development activities that could occur at the same time. This section of the report identifies these competing projects and estimates of their labour requirements.

1.1.5.2 Information Sources and Methods

A list of proposed major projects in BC is issued periodically by the BC Ministry of Finance. The latest version of the list was issued in September 2010 and identifies projects in each provincial economic development region that have a capital cost in excess of \$15 million. This assessment focuses on major projects located near major communities in the study area in the North Coast and Nechako development regions, or major projects that would draw resources from those communities (Figure 1.1-25). The expected labour requirements are estimated using construction labour multipliers for BC (Horne 2009).

1.1.5.3 Major Projects

Table 1.1-4 identifies the major projects that are currently underway, on hold or proposed for communities in the North Coast and Nechako development regions. The North Coast Development Region includes the RDs of Kitimat-Stikine and Skeena-Queen Charlotte. Major projects located near Alice Arm, Iskut, Stewart and Terrace are included in Table 1.1-4. Projects proposed for the DM of Kitimat or City of Prince Rupert have not been included in the table because these communities are considered to be too far from the proposed Project to be competing for labour, goods or services. Relevant projects for the Nechako Development Region are those located near Smithers.

As of September 2010, there were two major projects underway in the study area. They have a combined capital cost of \$38 million, which would generate 245 construction jobs.



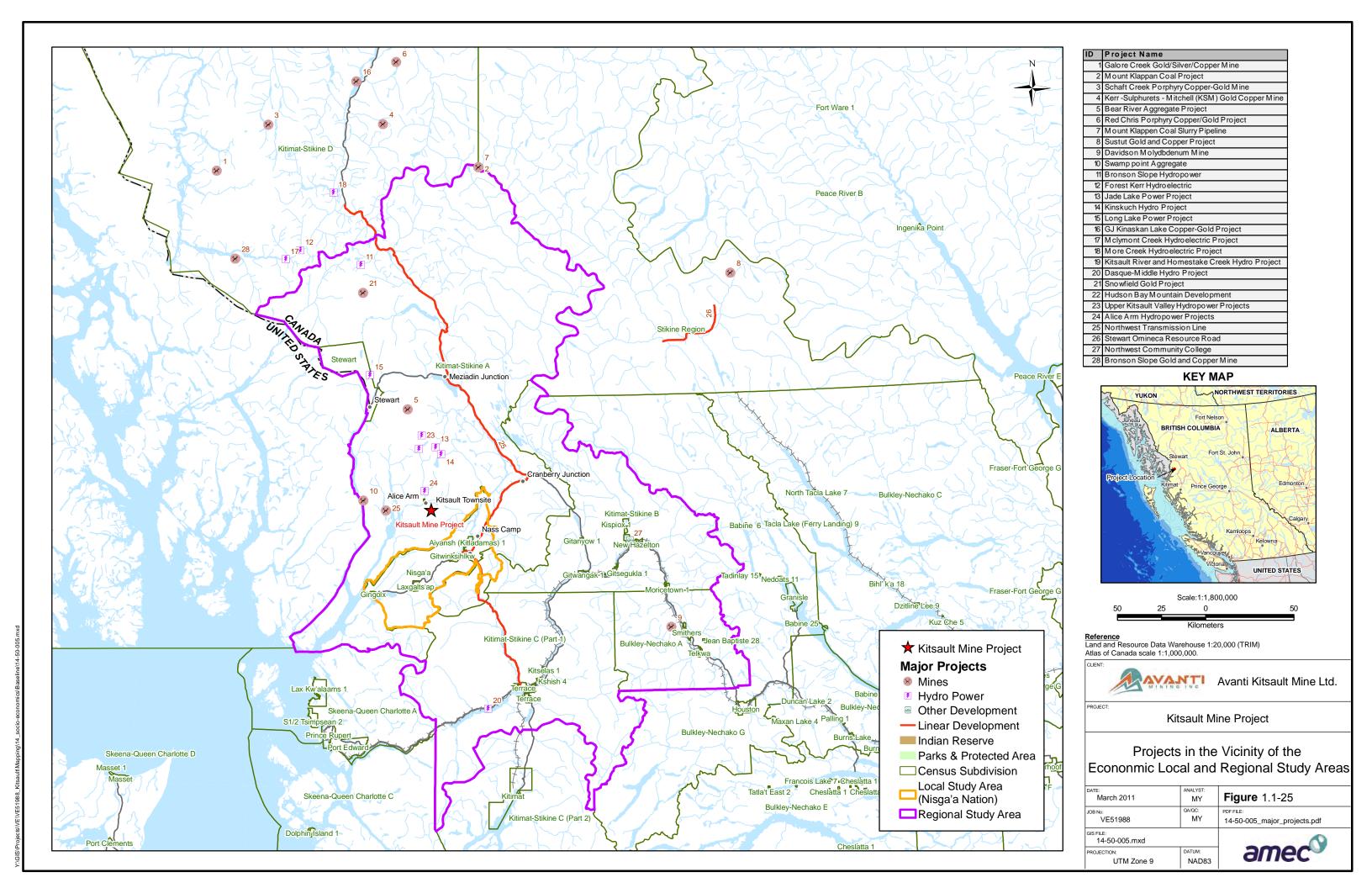




Table 1.1-4: Major Projects in the Study Area, 2010

Location	Status	ID	Project	Developer	Cost (\$millions)	Start	Finish	First Listed
Alice Arm	Underway	19	Kitsault River and Homestake Creek Hydro Project	Kitsault Hydroelectric Corp.	21	2007	2010	Mar-03
Alice Arm	Proposed	24	Alice Arm Hydropower Projects	Confederation Power Inc.	90	?	?	Dec-09
Alice Arm	Proposed	23	Upper Kitsault Valley Hydropower Projects	Confederation Power Inc.	95	?	?	Dec-09
Iskut	Proposed	16	GJ Kinaskan Lake Copper-Gold Project	Canadian Gold Hunter Corporation	?	?	?	Dec-08
Iskut	Proposed	14	Kinskuch Hydro Project	Enmax Syntaris Bid Corporation	300	?	?	Dec-08
Iskut	Proposed	21	Snowfield Gold Project	Silver Standard Resources	?	?	?	Dec-08
Iskut	Proposed	7	Mount Klappan Coal Slurry Pipeline	Fortune Minerals Limited.	?	?	?	Dec-07
Iskut	Proposed	2	Mount Klappan Coal Mine	Fortune Minerals Limited.	275	2011	2012	Mar-04
Iskut	Proposed	3	Schaft Creek Porphyry Copper-Gold Mine	Copper Fox Metals	600	2011	2014	Mar-04
Iskut	Proposed	6	Red Chris Porphyry Copper / Gold Project	Imperial Metals Corp.	228	?	?	Sep-97
Iskut	On Hold	1	Galore Creek Gold / Silver / Copper Mine	NovaGold Resources Inc. / Tech Cominco	4,000	2013	?	Mar-04
Kispiox	Proposed	26	Stewart-Omineca Resources Road	Tercon Construction Ltd/Consortium	40	?	?	Mar-04
Smithers	Underway	27	Northwest Community College–Campus Expansion	Northwest Community College	17	2009	2011	Jun-09
Smithers	Proposed	22	Hudson Bay Mountain Development	2020 Development	75	2010	2012	Dec-08
Smithers	Proposed	9	Davidson Molybdenum Mine	Thompson Creek Metals	109	?	?	Dec-05
Smithers	Proposed	8	Sustut Gold and Copper Project	Northgate Minerals Corp.	32	?	?	Dec-04
Stewart	Proposed	15	Long Lake Power Project	Long Lake Joint venture	60	?	?	Mar-10
Stewart	Proposed	13	Jade Lake Power Project	Max Pacific Power Inc. (now Syntaris Power Corp.)	360	?	?	Sep-08
Stewart	Proposed	4	Kerr -Sulphurets - Mitchell (KSM) Gold Copper Mine	Seabridge Gold Inc.	3,000	?	?	Jun-08
Stewart	Proposed	17	Mclymont Creek Hydroelectric Project	Coast Mountain Power Corp.	200	?	?	Sep-05
Stewart	Proposed	18	More Creek Hydroelectric Project	Coast Mountain Power Corp.	30	?	?	Sep-05





Location	Status	ID	Project	Developer	Cost (\$millions)	Start	Finish	First Listed
Stewart	Proposed	5	Bear River Aggregate Project	Glacier Aggregates Inc.	20	2010	2012	Jun-05
Stewart	Proposed	11	Bronson Slope Hydropower Projects	Skyline Gold Corporation	216	?	?	Dec-09
Stewart	Proposed	12	Forrest Kerr Hydroelectric Project	AltaGas Energy LP	700	2010	2014	Sep-01
Stewart	Proposed	28	Bronson Slope Copper / Gold / Silver / Molybdenum Mine	Skyline Gold Corporation	175	?	?	Dec-97
Stewart	On Hold	10	Swamp Point Aggregate Project	Ascot Resources	27	?	?	Jun-05
Terrace	Proposed	20	Dasque-Middle hydro Project	Swift Power Corp	50	?	?	Sep-09
Terrace	Proposed	25	Northwest Transmission Line	BC Transmission Corp	404	2010	2013	Sep-09

Note: ID refers to Project Name ID on Figure 1.1-25

Source: BC Ministry of Finance (2010)



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The status of one of these projects, the Kitsault River and Homestake Creek Hydro Project, is currently uncertain. It was scheduled to be completed in 2010 but the project now appears to be on hold as the developer, Confederation Power Inc., no longer exists. The other project is construction of the Northwest Community College Smithers Campus, which should be completed in 2011.

Another two projects are currently on hold. These include the Galore Creek Gold / Silver / Copper Mine near Iskut, which has a capital cost of \$4.0 billion and is expected to commence construction in 2013. While construction on this project was started, it was suspended pending a review of costs and the development of a new mine plan. The other project currently on hold is the Swamp Point Aggregate Project near Stewart. This project has a capital cost of \$27 million. In combination, these two projects would create 26,015 person-years of construction employment.

There are 24 proposed projects in the study area. Twenty-one of these projects have a combined estimated capital cost of at least \$7,059 million. No cost information is available for the remaining three projects. Two of these projects are located in Alice Arm, seven for areas around Iskut, one around Kispiox, nine around Stewart, three around Smithers and two around Terrace. In total, these projects would create at least 45,600 person-years of construction employment. It should be noted that there is no certainty that any of the proposed projects will actually be constructed. Two of the projects were originally proposed in the late 1990s and nine of them were proposed before 2006.

Two proposed projects in Alice Arm are the most likely to compete for local labour if they proceed. These include the Alice Arm Hydropower Projects (\$90 million cost for 30 megawatts of power from three projects) and Upper Kitsault Valley Hydropower Projects (\$95 million for 31.8 megawatts from seven projects). Both sets of projects were proposed in response to the BC Hydro 2010 Clean Power Call (BC Ministry of Finance 2010), but the original developer, Confederation Power Inc., no longer exists. Construction of these projects would require about 1,200 person-years of construction labour.

1.1.5.4 Summary

While a considerable amount of construction activity could occur in the study area over the next few years, the amount of new development that actually does occur will depend on global and provincial economic conditions. Nearly all of the major projects in the study area are either mining operations, which are dependent on global demands for base metals and competition from other suppliers, or are power projects that will be competing with similar projects throughout BC for funding to meet provincial and export power demands. Thus, there is considerable uncertainty about future levels of development in the study area.





1.1.6 Regional Government Finance

1.1.6.1 Introduction

Construction and operation of the proposed Project, and any expansion of regional businesses to support these activities, will ultimately increase the assessment base for regional governments and potentially provide an additional source of regional government revenues. This section of the report describes the revenues, expenditures and assessment bases of municipal and regional governments in the study area.

1.1.6.2 Information Sources and Methods

All information on municipal and regional government revenues and expenditures, assessment bases and tax rates was obtained from the BC Ministry of Community, Sport and Cultural Development (2010a, 2010b). The most recent information on revenues and expenditures is for 2008. Tax and assessment base information is available for 2010.

1.1.6.3 Revenues

Figure 1.1-26 shows the amount and sources of revenues for the six communities in the study area. The figure shows that Prince Rupert had total revenues of about \$32.0 million in 2008, of which 50.1% came from taxation and grants, 32.2% came from sales of services, and 12.9% came from transfers from federal, provincial and other governments. Terrace, with total revenues of \$18.9 million, was the only other community where taxation and grants accounted for more than half of total revenues. Hazelton had the smallest total revenues (nearly \$1.0 million), but more than half (59.1%) came from transfers from the federal, provincial and other municipal governments. Smithers and Stewart were also highly reliant on transfers from other governments: 45.4% of revenues for Smithers and 41.2% for Stewart.

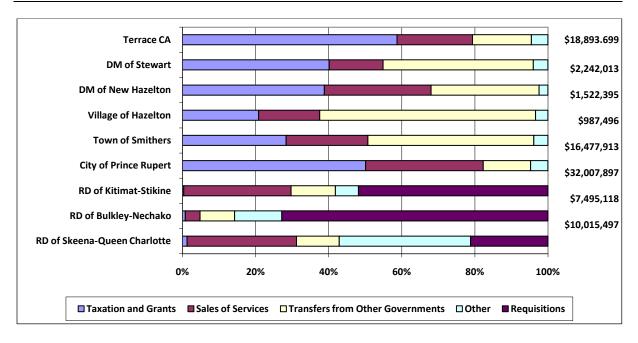
Parts of the study are situated in the RDs of Kitimat-Stikine, Bulkley-Nechako and Skeena-Queen Charlotte. Regional governments employ a different process for financing their operations. Unlike municipalities, RDs do not levy and collect taxes directly from residents. Instead, RDs requisition their annual budgets, which are based on an approved five-year financial plan, from the BC Ministry of Community Services (BC Ministry of Community, Sport and Cultural Development 2010b). The requisitions are based on the cost of the services to be provided by the RD, including costs shared with municipalities within the study area, and are used to determine the appropriate tax rates. Property taxes are then collected on behalf of the RDs by the BC Surveyor of Taxes. RDs can also charge users fees for services they provide, and may obtain revenues from grants or investments. Figure 1.1-26 shows that requisitions accounted for 51.8% of revenues for the RD of Kitimat-Stikine and 72.8% of revenues for the RD of Bulkley-Nechako, but only 21.1% of revenues for the RD of Skeena-Queen Charlotte.





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Note: RD - Regional District

Source: British Columbia Ministry of Community, Sport and Cultural Development (2010a)

Figure 1.1-26: Municipal Government Revenues Sources in the Study Area, 2008

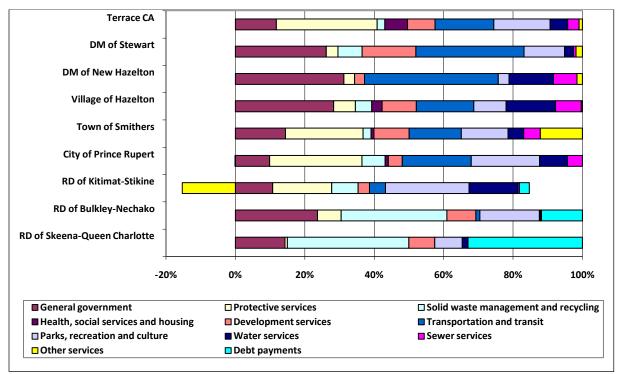
1.1.6.4 Expenditures

The expenditures reported for each municipal and regional government for 2008 are reported in Table 1.1-5. The information shows that all municipal governments and two of the three RDs had budget surpluses in 2008. Only the RD of Skeena-Queen Charlotte ran a small budget deficit.

Figure 1.1-27 shows the expenditures for each of the six communities and three RDs in 2008. The information shows that municipal and regional governments have different spending priorities. For two of the RDs, the largest expenditures were on solid waste management and recycling; this item accounted for more than 30% of the budgets of the RDs of Bulkley-Nechako and Skeena-Queen Charlotte, but less than 7.0% of the budgets for the six communities.







Note: RD - Regional District

Source: BC Ministry of Community, Sport and Cultural Development (2010a)

Figure 1.1-27: Municipal Government Expenditures in the Study Area, 2008

In contrast, spending on transportation and transit accounted for between 15.0% (Smithers) and 38.6% (New Hazelton) of spending by municipal governments, while this item accounted for less than 7% of spending by regional governments. Regional governments also spent some of their annual budget on debt payments, but not municipal governments.

For the larger communities (Terrace, Smithers and Prince Rupert), protective (fire, police, etc.) services accounted for 22.4% to 29.0% of annual expenditures. This item also accounted for 24.5% of annual spending by the RD of Kitimat-Stikine. Other major expenditure items for the larger communities included transportation and transit, and parks, culture and recreation. In the smaller communities (Stewart, Hazelton and New Hazelton), most spending was on general government expenses; this item accounted for 26.2% to 31.3% of annual expenses. Other major expenditures for these communities included water and sewer services in Hazelton and New Hazelton, and transportation and transit in Stewart.



Table 1.1-5: Municipal Government Expenditures in the Study Area, 2008, in \$CDN

	Terrace CA (\$)	DM of Stewart (\$)	DM of New Hazelton (\$)	Village of Hazelton (\$)	Town of Smithers (\$)	City of Prince Rupert (\$)	RD of Kitimat- Stikine (\$)	RD of Bulkley- Nechako (\$)	RD of Skeena- Queen Charlotte (\$)
General government	1,671,523	389,255	311,698	189,589	1,306,223	2,529,834	1,108,210	2,037,816	640,098
Protective services	4,106,204	49,689	31,032	41,911	2,025,308	6,820,422	1,757,449	583,293	29,440
Solid waste management and recycling	313,476	103,516	0	31,581	209,664	1,718,483	782,860	2,624,209	1,564,268
Health, social services and housing	930,508	0	0	20,000	76,494	235,860	0	0	0
Development services	1,121,812	229,804	28,259	66,060	919,580	1,025,072	337,965	716,724	334,507
Transportation and transit	2,388,235	463,089	384,622	110,729	1,359,206	5,094,087	478,311	100,018	0
Parks, recreation and culture	2,295,816	173,121	30,737	62,561	1,222,461	5,059,291	2,481,943	1,476,519	353,597
Water services	717,942	38,441	127,526	95,201	407,888	2,067,726	1,456,135	26,818	70,178
Sewer services	463,358	10,543	67,941	49,943	435,908	1,069,022	45,655	24,762	0
Other services	137,840	27,524	15,316	1,957	1,095,587	-23,552	-1,578,232	0	3,547
Debt payments							294,060	1,014,152	1,473,570
Total expenditures	14,146,714	1,484,982	997,131	669,532	9,058,319	25,596,245	7,164,356	8,604,311	4,469,205
Revenues	18,893,699	2,242,013	1,522,395	987,496	16,477,913	32,007,897	7,495,118	10,015,497	4,173,327
Surplus	4,746,985	757,031	525,264	317,964	7,419,594	6,411,652	330,762	1,411,186	-295,878

Note: DM - District Municipality; RD - Regional District; \$CDN - Canadian dollars

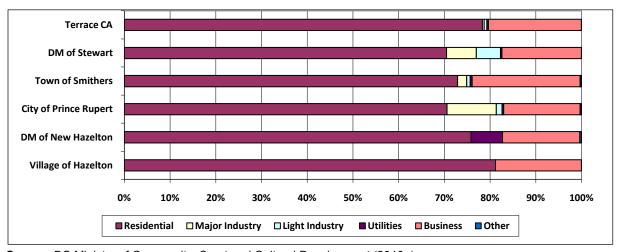
Source: BC Ministry of Community, Sport and Cultural Development (2010a)



1.1.6.5 Municipal Assessment and Tax Rates

Annual revenues for municipal governments are based on their assessment base and their rates of taxation. Figure 1.1-28 shows the assessment base for each of the six municipal governments in 2010. Although the size of the assessment base is hugely different for the various communities, ranging from \$13.3 million in Hazelton and \$29.0 million in New Hazelton, to \$925.1 million in Terrace and \$948.9 million in Prince Rupert, the composition of the assessment base is quite similar.

Residential properties accounted at least 70% of the assessment base in each community. Business properties account for much of the other 30% of the assessment base.



Source: BC Ministry of Community, Sport and Cultural Development (2010a)

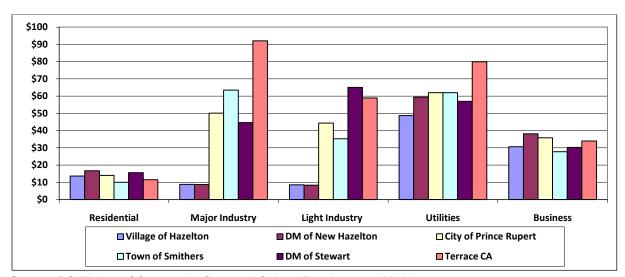
Figure 1.1-28: Municipal Assessment Base in the Study Area, 2010

Neither Hazelton nor New Hazelton has any industrial properties in their assessment bases. Major industry was only important in Prince Rupert (10.8% of the assessment base) and Stewart (6.5%). Light industry accounted for 5.3% of the assessment base in Stewart. Utilities only represented an important part of the assessment base in New Hazelton (7.0%).

Figure 1.1-29 shows the 2010 tax rates for each municipality. Tax rates for residential properties were quite similar, ranging from \$10.03 (per \$1,000 of assessed property) in Smithers to \$16.71 in New Hazelton. The tax rates for business properties were also quite similar. The rates for businesses ranged from \$27.74 in Smithers to \$37.13 in New Hazelton. There was considerable variability in the tax rates for industrial property, however. In Hazelton and New Hazelton, the industrial tax rates were actually lower than for residential properties. For major industrial properties, the tax rates in the other communities ranged from \$44.67 in Stewart to \$92.02 in Terrace. Stewart had the highest rates of taxation for light industry (\$65.04).







Source: BC Ministry of Community, Sport and Cultural Development (2010a)

Figure 1.1-29: Municipal Tax Rates per \$1,000 of Assessed Value in the Study Area, 2010

The municipal rates of taxation can be combined with information on municipal user fees to estimate the total taxes and charges on a representative house in each of the communities. This assessment is provided in Figure 1.1-30. It shows that the value of a representative house ranged widely, from \$63,781 in Stewart and \$75,926 in New Hazelton to \$209,265 in Smithers.

For most communities (Hazelton, New Hazelton, Prince Rupert and Stewart) the annual fees are proportional to the value of a representative house. However, annual taxes and charges in both Smithers and Terrace were lower than in Prince Rupert, even though the value of a representative house in Smithers and Terrace was higher than in Prince Rupert.



Source: BC Ministry of Community, Sport and Cultural Development (2010a)

Figure 1.1-30: Property Taxes and Charges on a Representative House in the Study Area, 2010







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1.1.6.6 Summary

While most municipal and regional governments in the study area had a budget surplus in 2008, about 20% to 60% of revenues for municipalities came from property taxes and revenues and grants, and residential properties accounted for at least 70% of the tax base in each community. Many municipal governments are heavily reliant on transfers from other governments, while two of three regional governments rely on requisitions from other governments for more than half their annual operating revenues.







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