Final Report

Regional District of Bulkley-Nechako

Industrial Land Use Inventory Study: Electoral Area G

January 31, 2010

millierdickinsonblais inc.

Contents

1 Introduction 4
1.1 Purpose 4
1.2 Report Structure 4
2 Methodology 6
2.1 Geographic Study Area 6
2.2 Definitions 6
2.3 Methodology 6
2.4 Limitations 8
3 Land Use Planning and Industrial Development 10
3.1 RDBN Industrial Land Use Planning 10
3.1.1 Houston/Topley/Granisle Rural Official Community Plan 10
3.1.2 Regional District of Bulkley-Nechako Zoning Bylaw 11
3.2 Municipal Industrial land Use Planning 14
3.2.1 District of Houston Official Community Plan 14
3.2.2 District of Houston Zoning Bylaw 16
4 Existing Industrial Land Supply 17
4.1 Existing Industrial Land 17
4.2 Usable Vacant Industrial Lands 17
5 Industrial Trends and Opportunities 19
5.1 Economic Base Analysis 19
5.1.1 Population 19
5.1.2 Labour force by industry 21
5.1.3 Occupations 25
5.1.4 Education attainment 28
5.1.5 Income 31
5.2 Regional Economic Development Action Plan 32
5.3 Industrial Sectors Overview 35
5.4 Prince Rupert Container Port Development 37
5.5 Prince George Airport Expansion 38
6 Infrastructure and Utilities 41

6.1 Hydro 41
6.2 Rail Access 42
6.3 Telecommunications 43
6.4 Natural Gas 43
6.5 Roads 43
7 Industrial Land Requirements 45
7.1 Introduction 45
7.2 Forestry and Forest Products Sector 45
7.2.1 Forestry and Forest products in the Regional District of Bulkley-Nechako 47
7.3 Mining and Subsurface Resource Sector 49
7.3.1 Mining and Subsurface Resources Sector in the Regional District of Bulkley Nechako 51
7.4 Agricultural Sector 53
7.4.1 Agricultural Sector in the Regional District of Bulkley-Nechako 55
7.5 Other Special Uses 57
7.6 Key Industrial Users 59
7.7 Adequacy of Existing Industrial land Supply to Meet Future Demand 60
8 Potential Industrial Land Inventory 62
8.1 Vacant Existing Industrial Land Inventory 62
8.2 Potential Future Industrial Land Inventory 62
8.3 Community Consultation 63
9 Conclusions 64
Appendix A – Existing Rural Industrial Lands 65
Appendix B – Potential Industrial Land 94

1 Introduction

1.1 Purpose

In 2007-2008, staff of the Regional District of Bulkley-Nechako (RDBN) undertook the preparation of a report entitled "Regional District of Bulkley-Nechako Electoral Area B Industrial Land Use Inventory Study". Largely developed using internal staffing resources under the leadership of Planning Director Jason Llewellyn, the report was extremely well-received, and was seen as a model for the completion of similar reports covering the RDBN's other six Electoral Areas. The full collection of seven reports will be used for the following purposes:

- As a resource for planning and decision making regarding industrial land use policies and regulations
- As an identification of assets and opportunities for incorporation in economic development and marketing initiatives
- As a resource for developers, investors and the real estate industry to assist in the identification of current industrial land development opportunities
- As a resource for the identification of Crown Lands needed for economic development and economic diversification efforts
- As a resource to demonstrate to the Agricultural Land Commission the community needs for the release of certain lands for industrial uses.

In late 2008, Millier Dickinson Blais, a national economic development consulting firm, was retained to prepare the six additional Electoral Area inventories/studies, using the earlier industrial land inventory study for Electoral Area B as a model. To this end, the primary intent of these inventories is to:

- Identify the existing industrial land base in the study area(s)
- Identify the present and future industrial land use needs in the study area(s)
- Evaluate the adequacy of the existing and potential industrial land base to meet future demand
- Provide a detailed parcel based inventory of industrial lands that are, or may be, potentially suitable for industrial development.

This present document is a draft of a report designed to clearly present the information, results and recommendations resulting from the Scope of Work for Electoral Area G.

1.2 Report Structure

This report is organized into 11 sections:

- Sections 1 and 2 present the purpose, methodology and limitations of the study in Electoral Area G
- Section 3 discusses the existing regulatory and planning infrastructure that exists regarding industrial land development in Electoral Area G

- Section 4 presents data on existing developed and vacant industrial lands in Electoral Area G
- Section 5 provides an overview of issues relating to future industrial land use needs in Electoral Area G
- Section 6 provides data and information relating to infrastructure and servicing of industrial lands within Electoral Area G
- Section 7 discusses potential future industrial land requirements in Electoral Area G
- Section 8 contains a parcel-based inventory and description of lands that are, or may be, potentially suitable for future industrial development within Electoral Area G
- Section 9 includes a summary of the study findings for Electoral Area G
- Appendices A and B contain detailed maps and site formation regarding the actual existing and potential parcels of industrial land in Electoral Area G

2 Methodology

2.1 Geographic Study Area

The study area includes all of Electoral Area G of the Regional District of Bulkley-Nechako. This area of the RDBN includes the District of Houston and the Village of Granisle. Industrial Lands within the boundaries of these local municipalities are not included in the present inventory, though those in close proximity to these municipalities are.

Statistics Canada data from the 2006 Census shows that rural areas of Electoral Area G have a population of 1,059 persons. This is a decrease from the 2001 Census figure of 1,099 persons, meaning the population has declined by 40 people or 3.6%. Data from the 2006 Census also shows that Houston has a population of 3,163 persons (a decline of 414 people or 11.6% over 2001) and that Granisle has a population of 364 (up 11 people or 3.1% from 2001). The area as a whole thus has a population of 4,586 persons, which represents a decrease of 443 people or 8.8% since 2001.

2.2 Definitions

The following definitions are used in this report:

Developed Industrial Land means land that is wholly or partially utilized for industrial purposes. A portion of a developed property that has significant remaining potential or capacity for further industrial development may be considered Vacant Industrial land (defined below).

Existing Industrial Land means land designated by a local government official community plan or zoning bylaw for industrial use, or land currently being used for industrial purposes.

Industrial Use means any of the uses permitted under M1 Light industrial Zoning, M2 Heavy Industrial Zoning or M3 Agricultural Industrial Zoning.

Potential Industrial Land means land that is not designated for industrial uses by an official community plan or zoning bylaw, but which may hold some potential for an appropriate Industrial Use from an infrastructure and/or land use planning perspective, whether at present or in the future.

Vacant Industrial Land means land designated by a local government official community plan or zoning bylaw for Industrial Use but not yet developed for Industrial Use. This includes properties that are designated industrial, but are currently zoned and/or developed for uses not permitted in the industrial designation (e.g. residential, agricultural).

2.3 Methodology

This study was prepared using the following steps and process:

Step 1) Review of Literature

A literature review of relevant reports, studies, strategies and other documentation regarding industrial development, economic development, and the regional economy was undertaken,

with a particular focus on understanding local official plans and local economic development objectives.

Step 2) Zoning and Land Use Designation Mapping Data
In conjunction with L&M Engineering of Prince George, the project team reviewed Official Community Plan (OCP) land use designations, zoning, and other geography-based data for lands within the region, and a series of maps were produced. An analysis of data was undertaken to estimate the amount of existing industrial land, developed industrial land, and vacant industrial land. Site visits were undertaken to each of the identified industrial use sites, or where the land use status of a property was uncertain.

All lands zoned for Industrial Use and all known lands without industrial zoning that contain an Industrial Use were identified as Existing Industrial Lands. Existing Industrial Lands were then reviewed to identify which parcels were developed and which were vacant. This review was based in part on Regional District staff knowledge of each parcel and in part through site visits carried out by members of the project team. An analysis of the Market Readiness of each Vacant Industrial Lands was then undertaken based on site visits.

Step 3) Identification of Industrial Trends and Future Development
An identification of the general economic and industrial trends occurring in the region was undertaken through a literature review and consultation with local stakeholders and experts. This review was undertaken to provide a basis for estimating the areas of future industrial growth in the area, and the associated industrial lands needs.

Step 4) Identification of Infrastructure Distribution Expansion Options
Research was undertaken to determine the location of various infrastructure located within the study area. This includes power, rail access, telecommunications, and roads. The costs and process to expand and/or install various types of infrastructure and utilities were also investigated.

Research for this section was conducted through interviews with a variety of industry representatives including (but not limited to) the following public and private organizations:

- BC Hydro
- CN Rail
- Pacific Natural Gas
- Telus
- Navigata Communications

Step 5) Identification of Future Land Use Needs
An identification of the general amount of future industrial lands needed in the region was undertaken through a literature review and extensive consultation with local stakeholders, and industry experts. This review focused on confirming the industry types considered likely to locate in the area and the industry types being targeted by local economic development

initiatives. Once the industry types were identified, research was undertaken to identify the service and location needs for the industry type.

Step 6) Creation of a Detailed Parcel Based Inventory
The maps created under Step 1 were reviewed by the project team, in consideration of the information identified in Steps 3 and 4, to identify areas and/or parcels of land that may be suitable for future Industrial Use. The potential impact of the Industrial Use of the lands was then considered. Each parcel identified as Vacant Industrial Land or Potential Industrial Land was added to the Industrial Lands Inventory and evaluated for services available, location attributes, challenges, and opportunities.

Step 7) Review of Research Results
This study included a consultative process regarding the study purpose, existing industrial land supply, future industrial land needs, and the review of the inventory at the parcel level. Numerous conversations were held with local municipalities, economic development organizations and other interested parties. A complete list will be included in the final version of this report.

2.4 Limitations

The scope of the work undertaken in this study includes the compilation and identification of existing information from reports and studies and from local community and expert knowledge. The study did not include significant primary research beyond consultation with stakeholders and experts. In particular, the estimated land needs identified in Step 4 are intended to be general in nature, and are not based on any scientific or statistical analysis.

Information on all potential development constraints was not readily available. There are various factors that can affect the development capacity of industrial lands. These factors include:

- Environmental constraints
    - Stream and water body setbacks
    - Environmentally sensitive areas
    - Contaminated sites
- Natural hazard constraints
    - Steep slopes
    - Areas prone to flooding
    - Loss of developable area due to the requirement to provide mitigation measures for flooding and other natural hazards
- The rezoning of designated industrial land for other uses, such as housing, farming, etc.
- Inclusion of non-industrial uses as permitted uses in industrial zones (e.g. large format retail and free standing offices) which reduces the supply of land for industrial uses

The evaluation of potential land use impacts undertaken in Step 5 was a subjective process and did not include a complete review with all relevant information. In particular it is noted that this

review did not include consultation with the general public, although consultations that took place during the development of the recent RDBN Economic Development Action Plan were considered and reviewed. Lands identified as Potential Industrial Lands may be found, upon further review, to be unsuitable for a particular, or any, industrial use. The necessary public input is incorporated into the rezoning process for any Potential Industrial Lands. The public will also have an opportunity to provide input at during future OCP review processes.

3 Land Use Planning and Industrial Development

3.1 RDBN Industrial Land Use Planning

3.1.1 Houston/Topley/Granisle Rural Official Community Plan

Section 2 in the Houston/Topley/Granisle Rural Official Community Plan, Bylaw No. 1087, 1998 contains general objectives with regards to the development of the rural area of Electoral Area G. Several objectives have an effect on industrial development, agriculture, and resource extraction.

2.6 It is the objective of the Regional Board to protect and preserve productive farmland and soil having good agricultural capability and encourage agriculture whether or not it is within the Agricultural Land Reserve.

2.7 It is the objective of the Regional Board to support the careful use of mineral and aggregate resource deposits and to protect these from development that would irreversibly prohibit its future utilization.

2.8 It is the objective of the Regional Board to accommodate industrial uses in suitable locations, as well as any potential primary resource extraction enterprises and the related processing of products.

2.24 It is the objective of the Regional Board to support the planning and development of utility services according to need, feasibility and public support in a manner that addresses those needs and provides tor an enhancement of neighbouring services.

2.26 It is the objective of the Regional Board to foster and maintain the rural character of the area, giving due consideration to the other objectives, policies, and land use designations within the plan.

Section 3.4 of the Rural Official Community Plan contains the following policies of the Regional Board with regards to industrial development:

3.4.1 encourage significant new industrial uses to establish within areas designated for industrial purposes, as shown on schedule "B" of this bylaw, or within a municipality;

3.4.2 consider designating further land within the Plan area for industrial purposes to accommodate new industrial uses where:

a) there is a demonstrated need;
b) the location is suitable;
c) the environment would not seriously be effected;
d) neighbouring uses would not seriously be effected;
e) generated traffic would not cause serious problems; and,

f) the proposed industrial use has the support of the Land Reserve Commission if the land is within the Agricultural Land Reserve;

3.4.3 consider the issuance of temporary use permits throughout the Plan area, where, notwithstanding a zoning bylaw:

a) the use is clearly temporary in nature;
b) there is demonstrated need;
c) the location is suitable;
d) the environment would not seriously be effected;
e) neighbouring uses would not seriously be effected; and,
f) generated traffic would not cause serious problems;

3.4.4 require appropriate minimum parcel sizes for industrial uses of land;

3.4.5 encourage the establishment of permanent greenbelt buffers along parcel boundaries to provide a physical separation between industrial uses of land and adjacent agricultural land.

3.1.2 Regional District of Bulkley-Nechako Zoning Bylaw

The Regional District of Bulkley-Nechako Zoning Bylaw no. 700, 1993 contains three industrial zones:

20.0 Light Industrial Zone (M1)

20.01 Permitted uses

(1)

a) light manufacturing including the construction, assembly, and repair of wood and fibreglass products, signs, boats and ceramic products;
b) warehousing including cold storage plants, frozen food lockers and feed and seed storage and distribution;
c) food products manufacturing, processing and packaging excluding processing and packaging of fish and including only pre-dressed and government inspected meats and eviscerated poultry;
d) building supplies and lumber yard;
e) automotive repair garage including auto body work and painting, muffler shops, transmission shops, tire sales and service, carwashes and excluding the wrecking, salvage and storage of automobiles;
f) commercial workshop including machine shop, welding shop, private or government garage and workshop;
g) storage compounds; and,
h) retail sales of petroleum products.

21.0 Heavy Industrial Zone (M2)

21.01 Permitted uses

(1)

a) *wood products manufacture and processing including sawmill, shake mill, planner mill, pulp mill, log storage yard, lumber remanufacturing plant, plywood plant, particle board plant, and hardboard plant;*
b) *public utility uses;*
c) *wrecking, salvage and storage of automobiles;*
d) *concrete, asphalt and rock crushing plant; and,*
e) *waste disposal site.*

22.0 Agricultural Industrial Zone (M3)

22.01 Permitted uses

(1)

a) *the processing, storage, wholesaling and retailing of agricultural products;*
b) *livestock auction;*
c) *farm implement repair and sales; and,*
d) *growth and sale of nursery products, commercial crops and garden supplies.*

The Regional District of Bulkley-Nechako Zoning Bylaw No. 700, 1993 also contains four zones that allow industrial activity associated with agriculture and resource extraction.

12.2 Small Holdings (Industrial Shop) Zone (H1 B)

12.2.01 Permitted uses

a) *single family dwelling;*
b) *two family dwelling;*
c) *agriculture;*
d) *horticulture, nursery, greenhouse;*
e) *silviculture;*
f) *kennel and veterinary clinic;*
g) *commercial workshop including machine shop, welding shop, private or government garage and workshop;*
h) *home occupation; and,*
i) *buildings and structures accessory to the permitted principal uses.*

13.0 Large Holdings Zone (H2)

13.01 Permitted uses

a) *agriculture;*
b) *intensive agriculture;*
c) *horticulture, nursery, greenhouse;*
d) *single family dwelling;*
e) *two family dwelling;*
f) *logging and silviculture;*
g) *portable sawmill and lumber kiln;*
h) *mineral, placer, coal, and aggregate exploration, extraction and processing;*
i) *waste disposal site;*
j) *outdoor recreation facilities*
k) *kennel and veterinary clinic;*
l) *primitive campsite;*
m) *guest ranch;*
n) *rural retreat;*
o) *peat extraction;*
p) *home occupation; and,*
q) *buildings and structures accessory to the permitted use.*

14.0 Agricultural Zone (Ag1)

14.01 Permitted uses

a) *agriculture;*
b) *intensive agriculture;*
c) *horticulture, nursery, greenhouse;*
d) *single family dwelling;*
e) *two family dwelling on parcels not within the Agricultural Land Reserve;*
f) *logging and silviculture;*
g) *portable sawmill and lumber kiln;*
h) *mineral, placer, coal and aggregate exploration, extraction and processing;*
i) *waste disposal site;*
j) *kennel and veterinary clinic;*
k) *outdoor recreation facilities;*
l) *primitive campsite;*
m) *guest ranch;*
n) *rural retreat;*
o) *peat extraction;*
p) *unpaved airstrips and helipads for the use of aircraft flying non-scheduled flights;*
q) *home occupation; and,*
r) *buildings and structures accessory to the permitted principal uses.*

15.0 Rural Resource Zone (RR1)

15.01 Permitted uses

(1)

a) agriculture;
b) intensive agriculture;
c) horticulture, nursery, greenhouse;
d) single family dwelling;
e) two family dwelling;
f) seasonal dwelling;
g) logging and silviculture;
h) portable sawmill and lumber kiln;
i) mineral, placer, coal and aggregate exploration, extraction and processing;
j) waste disposal site;
k) outdoor recreation facilities;
l) primitive campsite;
m) guest ranch;
n) rural retreat;
o) peat extraction;
p) unpaved airstrips and helipads for use of aircraft flying non-scheduled flights;
q) home occupation;
r) kennel and veterinary clinic; and,
s) buildings and structures accessory to the permitted uses.

The rural lands zoned M1, M2, and M3 are identified further in Appendix A and discussed in Section 4 of the report.

3.2 Municipal Industrial land Use Planning

3.2.1 District of Houston Official Community Plan

Section 2.2 of the District of Houston Official Community Plan, Bylaw No. 875, 2002 states the broad vision of the District of Houston. As part of this vision, the District seeks to promote itself as the Industrial Capital of the Northwest. The goal is to both diversify the economic base of the District, as well as provide residents with a higher quality of life and stable employment. The plan mentions the following industrial assets used to strengthen this vision:

- Two existing modern forestry plants (Canfor and Houston Forest Products);
- An industrial park with transportation access;
- Well screened heavy industrial operations; and,
- Room for industrial expansion and growth.

Section 6 contains the specific objectives and policies of District Council regarding industrial land use. The Plan has a basic vision of directing future light industrial uses to the District's

business park, which at the time of Plan formulation was predominantly occupied by light industrial uses. Areas identified for potential industrial expansion outside the Houston Industrial Park included the areas around Houston Forest Products and Canadian Forest Products, due to their rail and road access, appropriate parcel sizes, and generally compatible land uses. Despite the fact that the majority of land in these areas is owned by the mills, the Plan states that this area has significant potential. The key target industries identified by the Plan continue to be forestry and manufacturing, which currently employ the majority of Houston residents.

Section 6.2 lists Councils objectives with regards to Industrial development:

6.2.1 Promote Houston as the "Industrial Capital of the Northwest"

6.2.2 Ensure that there is an adequate supply of industrial land to support the continued expansion of the Houston economy

6.2.3 Explore the possibility of diversifying the industrial land base to encourage industrial development as a means of expanding and diversifying the District's economy and tax base

6.2.4 Encourage the growth of industrial businesses in Houston

6.2.5 Direct industrial development to locations where they will not pose any negative impacts on non-industrial uses

Section 6.3 identifies Council's specific policies regarding Industrial development;

6.3.1 Continue encouraging and directing light industrial development in the existing Industrial Park, designated Light Industrial on Schedule B, Urban Land Use Map, and Schedule C, Rural land Use Map

6.3.2 Continue encouraging and directing heavy industrial development to the southwest quarter of the District's boundaries and the general area where existing forestry manufacturing is located, designated Heavy Industrial on Schedule C, Rural Land Use Map

6.3.3 Ensure that there is adequate screening of industrial areas from adjacent residential, commercial or other non-industrial uses

6.3.4 Encourage industrial businesses to minimize impacts from noise, dust, odour and other detrimental effects from adjacent non-industrial land uses

6.3.5 Support Canfor, Houston Forest Products, Huckleberry mines, senior government ministries, business agencies and other private companies to advance forestry and mining activity

6.3.6 Continue to derive benefit from stable forest and mining industry

6.3.7 Pursue an industrial development initiative as part of the Community Economic Development Strategy that will establish Houston as the "Industrial Capital of the Northwest"

6.3.8 Work with Economic Development Officer to determine how much land is available for future light industrial and heavy industrial uses

6.3.9 Encourage highway contractor to move to a more appropriate location

6.3.10 Encourage mining and forestry equipment and sales

6.3.11 Work with the Land Reserve Commission and the Regional District of Bulkley-Nechako to discuss the possibility of promoting and marketing the Airport lands for airport oriented and general industrial uses and use this land base as a tool for the diversification of the local economy.

Section 17.11 gives consideration to development of the lands surrounding the Houston Municipal Airport. The Plan states that based on the reduction of opportunities for heavy industrial development, as well as the limited amount of existing development around the airport, there is an opportunity for potential light and heavy industrial park development surrounding the airport. The plan suggests that the best way to assess this potential is through preparation of a comprehensive Airport Lands Development Plan. It is assumed that this plan would be done if significant need arises.

3.2.2 District of Houston Zoning Bylaw

The District of Houston Zoning Bylaw No. 951, 2007 contains two industrial zoning classifications in sections 16 and 17. Section 16.1 states the general purpose of the **M1-Light Industrial Zone**:

16.1 The purpose of the M1 zone is to provide for the location of light industrial, warehousing and limited commercial uses which are compatible with each other and land uses in adjacent zones.

Section 17.1 states the purpose of the **M2-Heavy Industrial Zone**:

17.1 The purpose of the M2 zone is to provide for the location of heavy industrial and manufacturing uses not compatible with other land uses and requiring access to a major roadway

Lands zoned M1-Light industrial are generally located on the North side of Highway 16 and the CN Rail line, while lands zoned M2-Heavy Industrial are generally located in the Southwestern corner of the District, on the South side of Highway 16.

4 Existing Industrial Land Supply

4.1 Existing Industrial Land

Existing industrial land includes both developed and vacant industrial lands. For the purpose of this study the definitions for existing, developed, and vacant industrial lands are as follows:

Existing Industrial Land means land designated by a local government Official Community Plan or zoning bylaw, or land currently being used for industrial use.

Developed Industrial Land means land that is wholly or partially utilized for industrial uses. A portion of a developed property that has significant remaining capacity for further industrial development may be considered Vacant Industrial Land.

Vacant Industrial Land means land designated by a local government Official Community Plan or zoning bylaw for Industrial Use but not yet developed for Industrial Use. This includes properties that are designated industrial, but are currently zoned and/or developed for uses not permitted in the industrial designation (e.g. residential, agriculture).

It is noted that the determination of the vacant status of lands was a particularly subjective exercise. **Lands that were in use for purposes of equipment storage, or contained buildings at or near the end of their economic life, or otherwise significantly underutilized were considered to be vacant.**

Details of existing industrial lands are shown in Appendix A, which includes lands that are in the Regional District but fall outside of the municipal boundaries.

The land area in hectares of Existing Industrial Lands, Vacant and Developed Industrial Lands, and Usable Vacant Industrial Lands are shown in Table 1. The data is broken down by page as shown in Appendix A.

4.2 Usable Vacant Industrial Lands

An evaluation of each piece of vacant industrial land was undertaken to identify the approximate area of land that is practically available for future industrial development. For example, areas that cannot be developed because they are wetlands or steeply sloped were excluded from the calculation of useable vacant industrial lands as shown in Table 4.2.

There is a total of 48.124 hectares of Industrial Land in the study area. Approximately 2.141 hectares, or 4.4%, of the Industrial Land is developed. Approximately 45.983 hectares, or 95.6%, of the land is vacant. Of this vacant land, 33.885 hectares or 78% is usable vacant land, based upon a preliminary site evaluation. The community of Topley has a significant concentration of vacant industrial lands (Maps 3, 4 and 5), with a total of 23.766 hectares of vacant land, of which an estimated 14.441 hectares is usable based on the site evaluation. The other significant concentration of usable land is 22kms west of Topley (Map 2) with 12.193 hectares of usable light industrial lands.

Table 4.2 Existing Rural Industrial Land Area in Hectares

Map #	Zoning	Site Size (ha)	Industrial Lands			
			Total (ha)	Developed (ha)	Vacant (ha)	Usable Vacant (ha)
1	M1	4.310	4.310	0.000	4.310	4.310
2	M1	12.193	12.193	0.000	12.193	12.193
3	M2	14.349	14.349	0.393	13.956	11.743
4	M1	3.100	0.326	0.000	0.326	0.326
5	M2	14.633	11.077	0.562	10.515	2.372
6	M3	183.990	5.869	1.186	4.683	4.683
Total		**232.575**	**48.124**	**2.141**	**45.983**	**35.627**

The market readiness of the Usable Vacant Industrial Land is not addressed in this Section. Section 8 of this study will identify, on a site and property specific basis, potential future industrial lands, in more detail. The lands discussed in Section 8 will include the Usable Vacant Industrial Lands identified in this Section.

5 Industrial Trends and Opportunities

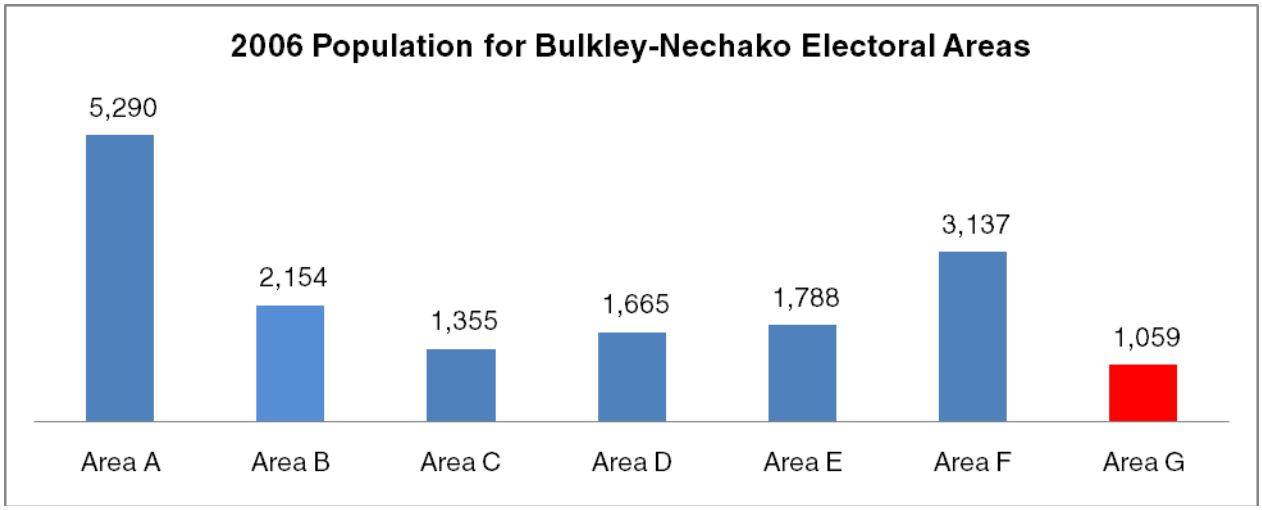
5.1 Economic Base Analysis

Since assuming an active role in economic development, local government has aimed at creating more jobs, expanding the tax base and diversifying the economic base. Economic base analysis uncovers the strengths and weakness of the economic landscape, thereby allowing the opportunity for a community to seize opportunities and mitigate weaknesses. It is anticipated that this study will be used as an economic development tool for industrial development and serve as a baseline for future comparisons of economic statistics over time. The sections below provide details on the Electoral Areas in the Regional District of Bulkley-Nechako.

5.1.1 Population

Population changes can facilitate or challenge economic development within a particular locale. A steady rise in population can expand the tax base and provide opportunities to expand business and infrastructure services. In some communities the type of population expansion can reveal some interesting facts about business trends or emerging opportunities within the community.

Figure 1: Population figures for Electoral Areas of Bulkley-Nechako



Source: Statistics Canada, 2006

The population figures show that Electoral Area A is the largest of all Electoral Areas in the Regional District of Bulkley-Nechako, with Electoral Area F as the second largest. By population, Area G is the smallest Electoral Area in the Regional District, accounting for just 2.8% of the total population in the Bulkley-Nechako census district.

Electoral Area G, like the majority of the Electoral Areas experienced a decline in population from 2001 to 2006. However, of the areas that declined in population, Area G exhibited a more moderate decline, only slightly higher than that of Area D. During the same period, the region's overall decline in population was 6.4%, with an average decrease of 6.3% in the seven Electoral Areas. In summary, the decline in Area G was less severe than both the decline of the RDBN as a whole, and the average decline of the seven Electoral Areas.

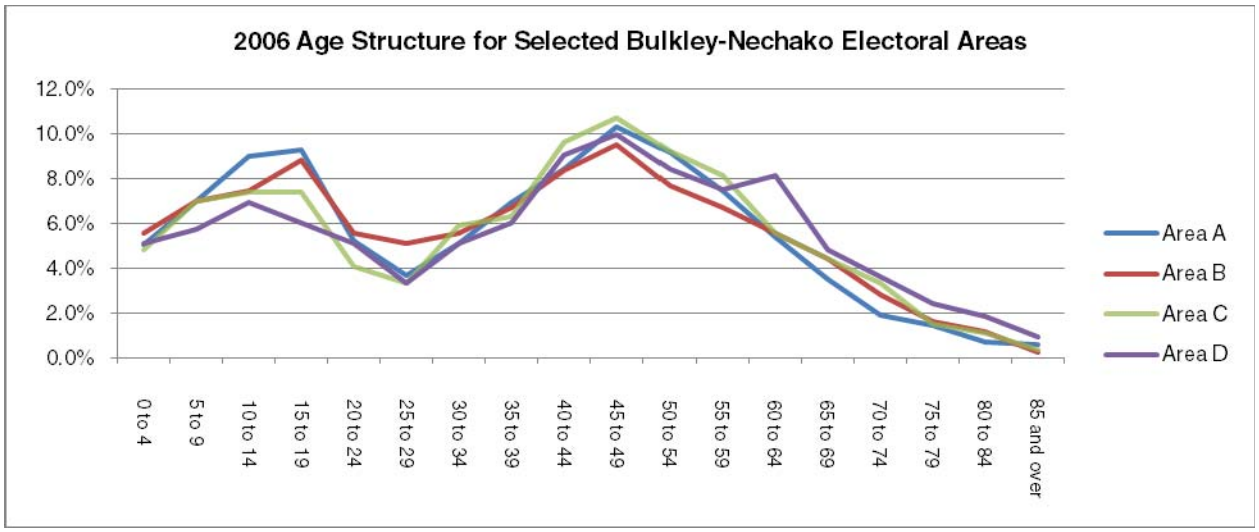
Figure 2: Population change for Electoral Areas of Bulkley-Nechako

2001 to 2006 Population Change	
Electoral Area A	-7.1
Electoral Area B	-5.4
Electoral Area C	-19.7
Electoral Area D	-2.9
Electoral Area E	2.2
Electoral Area F	-7.3
Electoral Area G	-3.6

Source: Statistics Canada, 2006

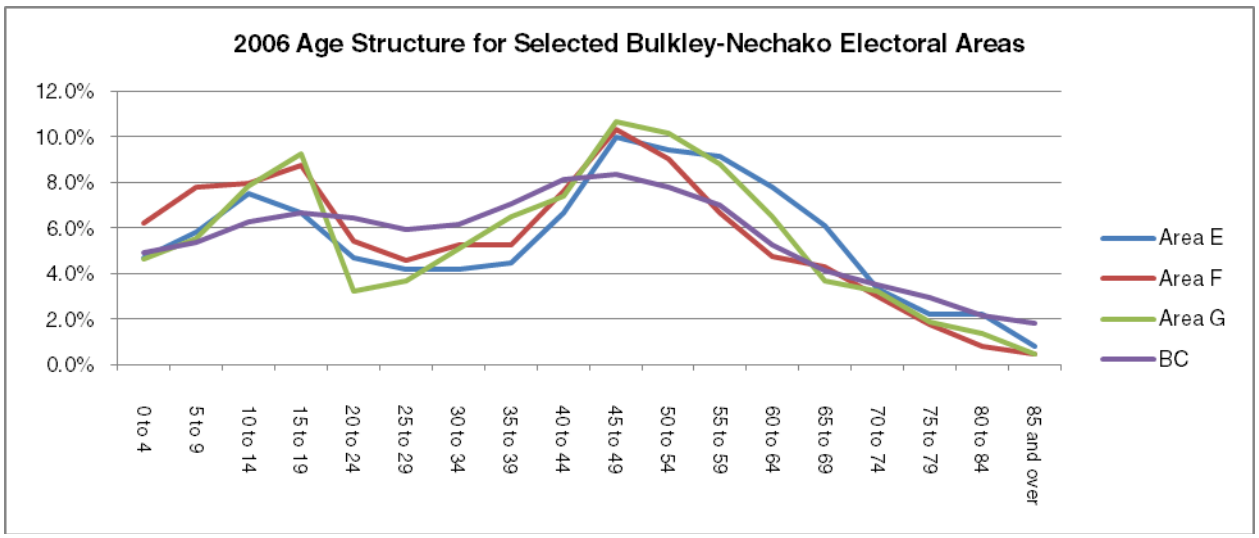
The age structure of a population can reveal certain dynamics over a period of time including advantages or disadvantages a particular location has. The composition of workforce groups such as the feeder cohort (i.e. those within range of joining the labour force), working cohort (i.e. those are active within the workforce) and mature/retired cohort (i.e. those out of the workforce) can determine the type of advantages or limitations a community has.

Figure 3: Age structure for Electoral Areas of Bulkley-Nechako



Source: Statistics Canada, 2006

Figure 4: Age structure for Electoral Areas of Bulkley-Nechako



Source: Statistics Canada, 2006

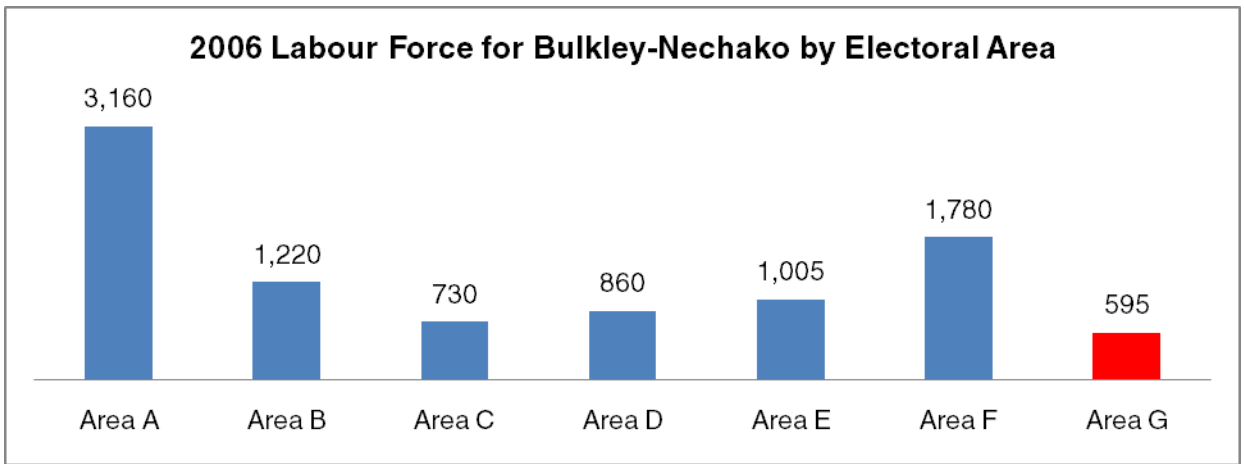
Most of the Electoral Areas have a similar pattern in terms of age distribution, much less constant across the age groups than the province as a whole. Generally speaking, the Electoral Areas have moderately sized youth populations, with a large gap in the 20-39 year old age cohorts, and larger middle-aged populations. However, there are some marked differences that may likely create advantages for certain districts. Electoral Area G had the highest proportions of population aged 55-59 and 50-54, with the second highest proportion of population aged 44-49 of all the Electoral Areas. However, the Electoral Area also tied Area A for the highest proportion of population in the 15-19 year old range.

Perhaps most interesting is the loss of population that occurred in the 20-24 year old population cohort. Since the 2001 census, there was a loss of approximately 53% of the population within this age cohort, leading to a significant dip in the age structure diagram in the figure above. While the other Electoral Areas also exhibit a similar gap, none seem quite as severe as Area G. Coupled with the fact that the population is comparatively small, this may have detrimental effects on the ability to replenish the workforce, which based on the above paragraph, should be close to retirement. In terms of median age, Area G was slightly higher than the province (42.6 years and 40.8 years respectively), and much higher than that of the RDBN (37.4 years).

5.1.2 Labour force by industry

The size and growth rate of an industry can reveal the ability of the community to create jobs for people that participate within the economy and the potential for growth given the nature of economic opportunities that are created within the locale.

Figure 5: Labour force size for Electoral Areas of Bulkley-Nechako



Source: Statistics Canada, 2006

The graphs generally show a similar type of pattern seen in the population charts with Electoral Areas A and F comprising the larger portions of the Bulkley-Nechako labour force relative to the other Electoral Areas in the comparison. Electoral Area G contains the smallest labour force of all Electoral Areas, accounting for only 3% of the total labour force in the Regional District.

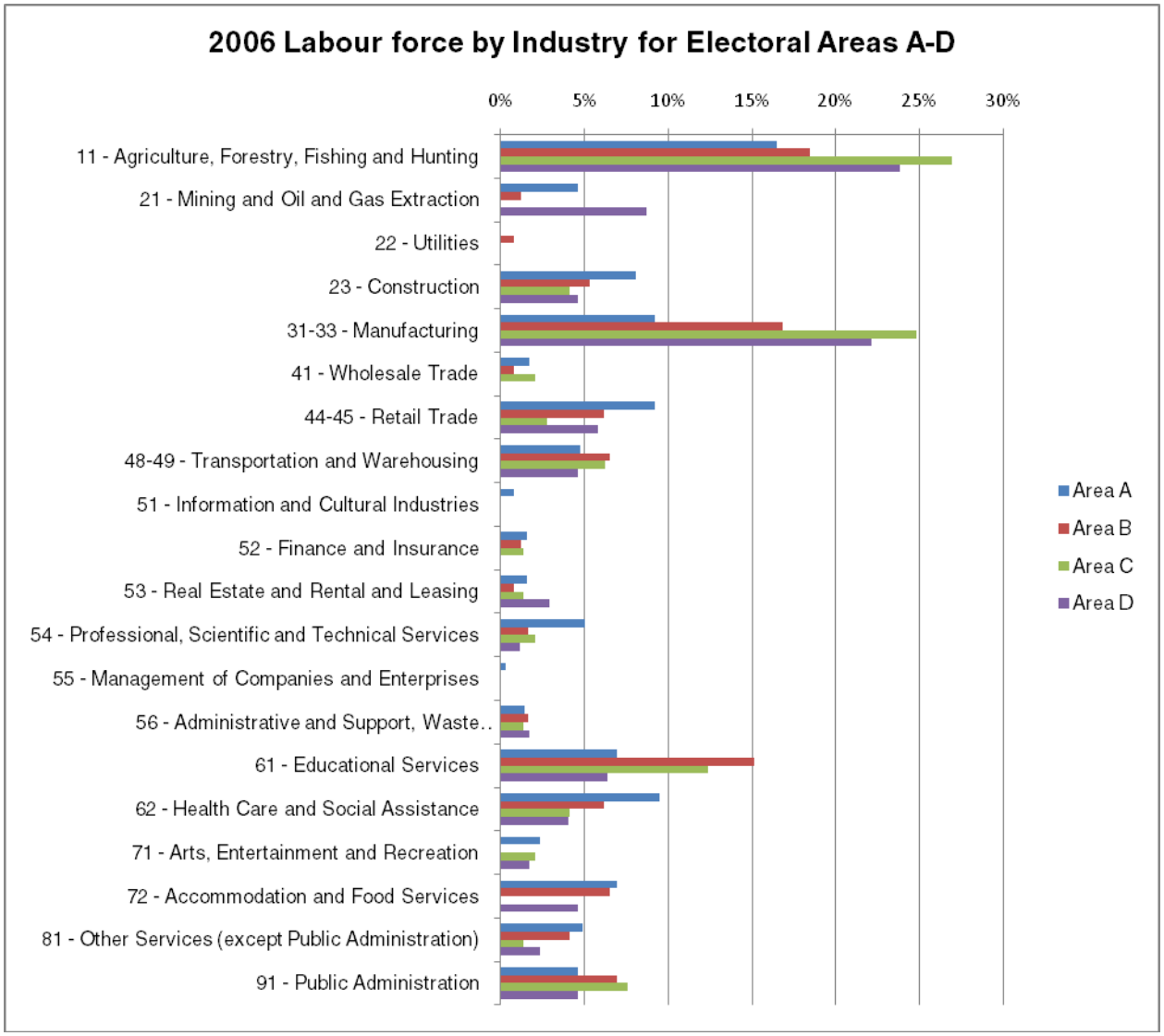
Also important is the community's labour force structure by industry, which can suggest whether a community's economy is based on a single industry or diversified in its sectors. One obvious advantage of a diversified economy in comparison to a single industry based economy is the ability to create opportunities for convergence between sectors and weather downturns that may occur in any particular sector. The result is economic flexibility and resiliency.

Figure 6: Labour force by industry for Electoral Areas of Bulkley-Nechako

Labour Force by Industry 2006	Elect Area A	Elect Area B	Elect Area C	Elect Area D	Elect Area E	Elect Area F	Elect Area G
Total employed in industry	3,160	1,220	725	860	1,005	1,775	595
11 - Agriculture, Forestry, Fishing and Hunting	520	225	195	205	295	495	140
21 - Mining and Oil and Gas Extraction	145	15	0	75	15	10	65
22 - Utilities	0	10	0	0	0	10	0
23 - Construction	255	65	30	40	65	85	40
31-33 - Manufacturing	290	205	180	190	95	325	115
41 - Wholesale Trade	55	10	15	0	20	40	0
44-45 - Retail Trade	290	75	20	50	90	140	40
48-49 - Transportation and Warehousing	150	80	45	40	65	80	60
51 - Information and Cultural Industries	25	0	0	0	0	25	0
52 - Finance and Insurance	50	15	10	0	10	30	0
53 - Real Estate and Rental and Leasing	50	10	10	25	15	0	0
54 - Professional, Scientific and Technical Services	160	20	15	10	25	40	0
55 - Management of Companies and Enterprises	10	0	0	0	0	0	0
56 - Administrative and Support, Waste Management and Remediation Services	45	20	10	15	0	30	15
61 - Educational Services	220	185	90	55	90	100	40
62 - Health Care and Social Assistance	300	75	30	35	80	115	30
71 - Arts, Entertainment and Recreation	75	0	15	15	0	0	0
72 - Accommodation and Food Services	220	80	0	40	35	120	15
81 - Other Services (except Public Administration)	155	50	10	20	45	60	20
91 - Public Administration	145	85	55	40	35	65	0

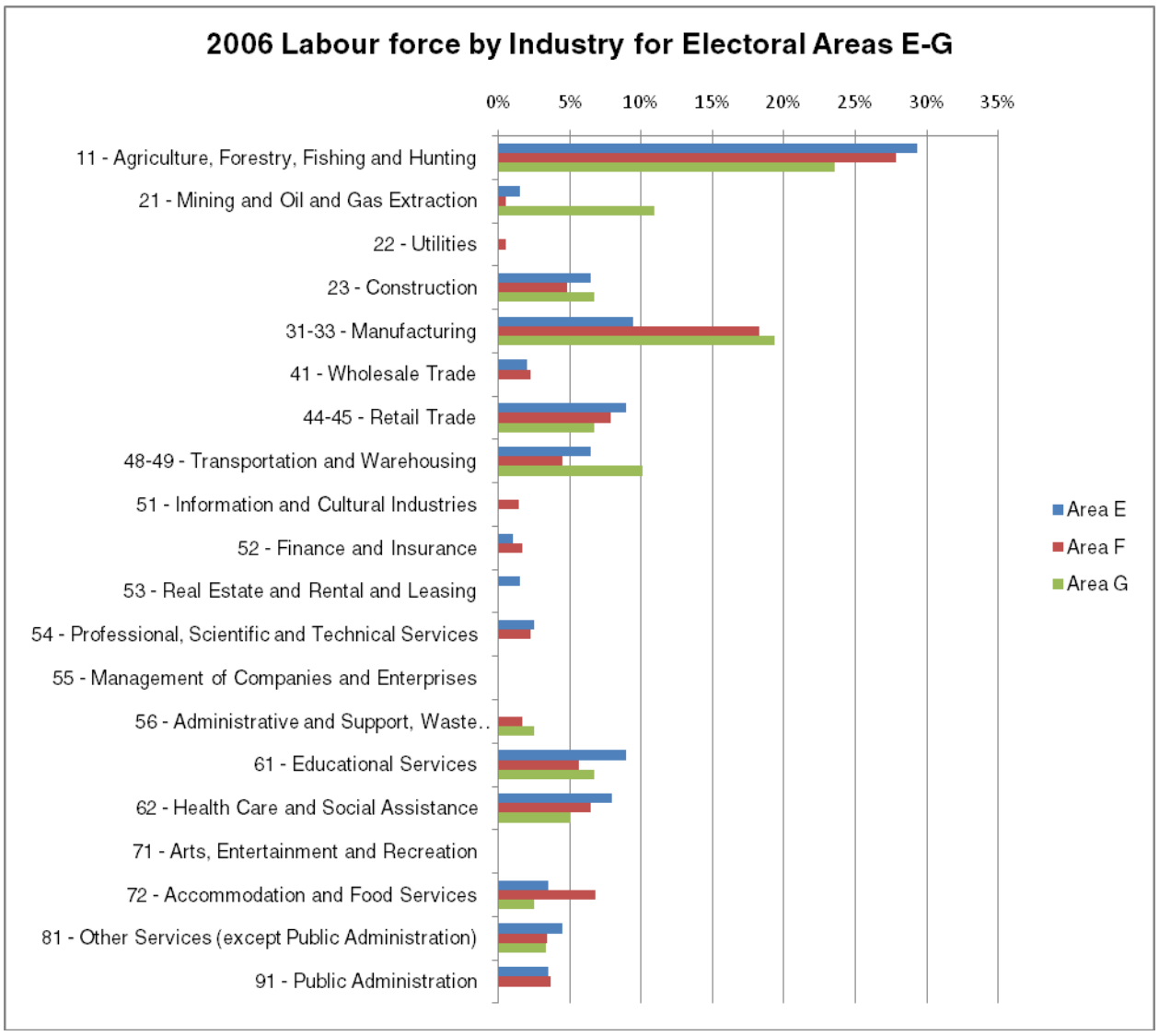
Source: Statistics Canada, 2006

Figure 7: Labour force by industry for Electoral Areas A-D of Bulkley-Nechako



Source: Statistics Canada, 2006

Figure 8: Labour force by industry for Electoral Areas E-G of Bulkley-Nechako



Source: Statistics Canada, 2006

The charts show that Electoral Areas are generally concentrated in sectors such as Agriculture, Forestry, Fishing and Hunting and Manufacturing, which is reflected in the concentrations in Electoral Area G. In the case of Agriculture, Forestry, Fishing and Hunting, the industry accounts for about 24% of the labour force, while Manufacturing accounts for just less than 20%.

5.1.3 Occupations

Labour force by occupation is another way of looking at employment in communities. This perspective shows occupations that could be beneficial to economic development efforts. What is important to note is that some occupations have the advantage of flexibility in terms of transferring skills across different industries and this is a unique aspect that makes a community's economy more robust in difficult economic times. Concentrations in occupations

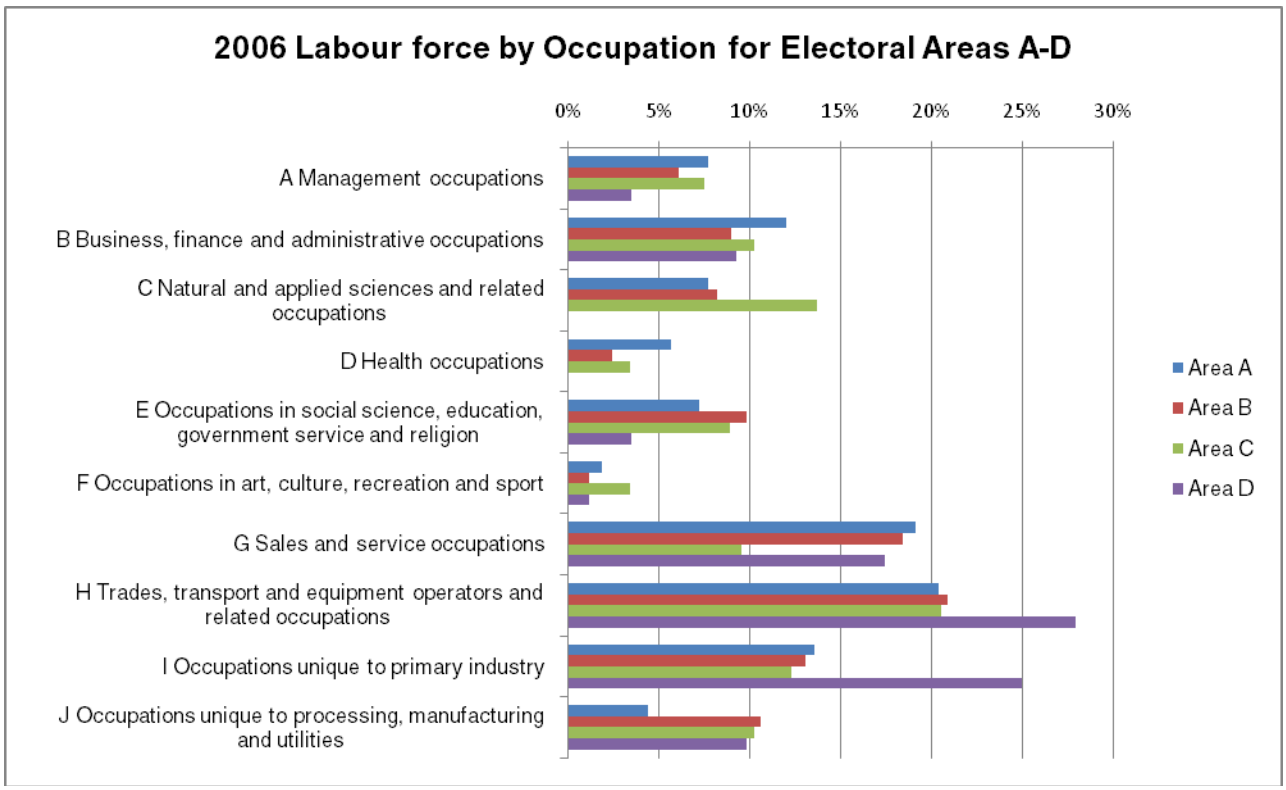
where wages are high also provide revenue opportunities for a community and provide the means to formulate strategies that anchor professionals to a community.

Figure 9: Labour force by occupation for Electoral Areas of Bulkley-Nechako

Labour Force by Occupation 2006	Elect Area A	Elect Area B	Elect Area C	Elect Area D	Elect Area E	Elect Area F	Elect Area G
All occupations	3,160	1,220	730	860	1,005	1,780	595
A Management occupations	245	75	55	30	70	95	40
B Business, finance and administrative occupations	380	110	75	80	120	160	65
C Natural and applied sciences and related occupations	245	100	100	0	35	40	10
D Health occupations	180	30	25	0	50	85	20
E Occupations in social science, education, government service and religion	230	120	65	30	90	90	10
F Occupations in art, culture, recreation and sport	60	15	25	10	0	20	10
G Sales and service occupations	605	225	70	150	140	305	100
H Trades, transport and equipment operators and related occupations	645	255	150	240	190	435	230
I Occupations unique to primary industry	430	160	90	215	240	415	45
J Occupations unique to processing, manufacturing and utilities	140	130	75	85	70	125	70

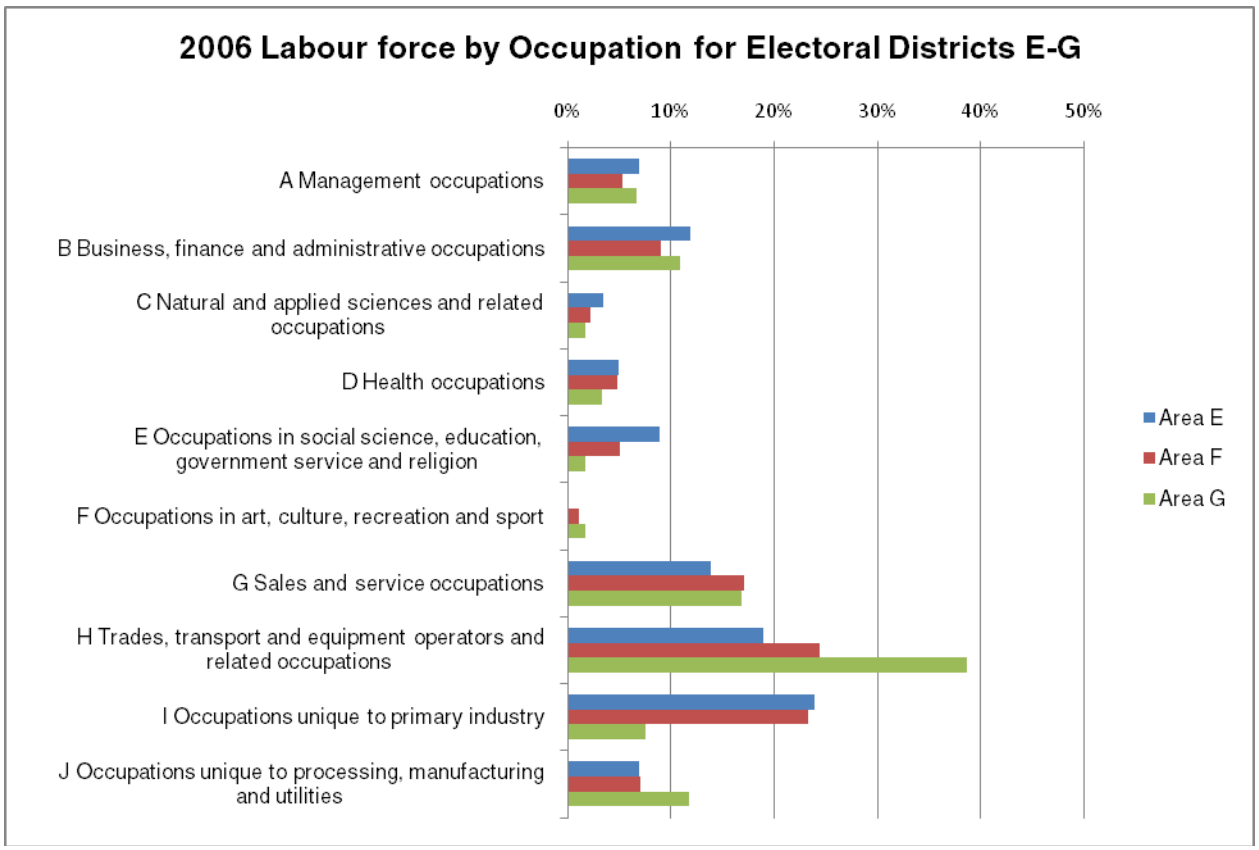
Source: Statistics Canada, 2006

Figure 10: Labour force by occupation for Electoral Areas A-D of Bulkley-Nechako



Source: Statistics Canada, 2006

Figure 11: Labour force by occupation for Electoral Areas E-G of Bulkley-Nechako



Source: Statistics Canada, 2006

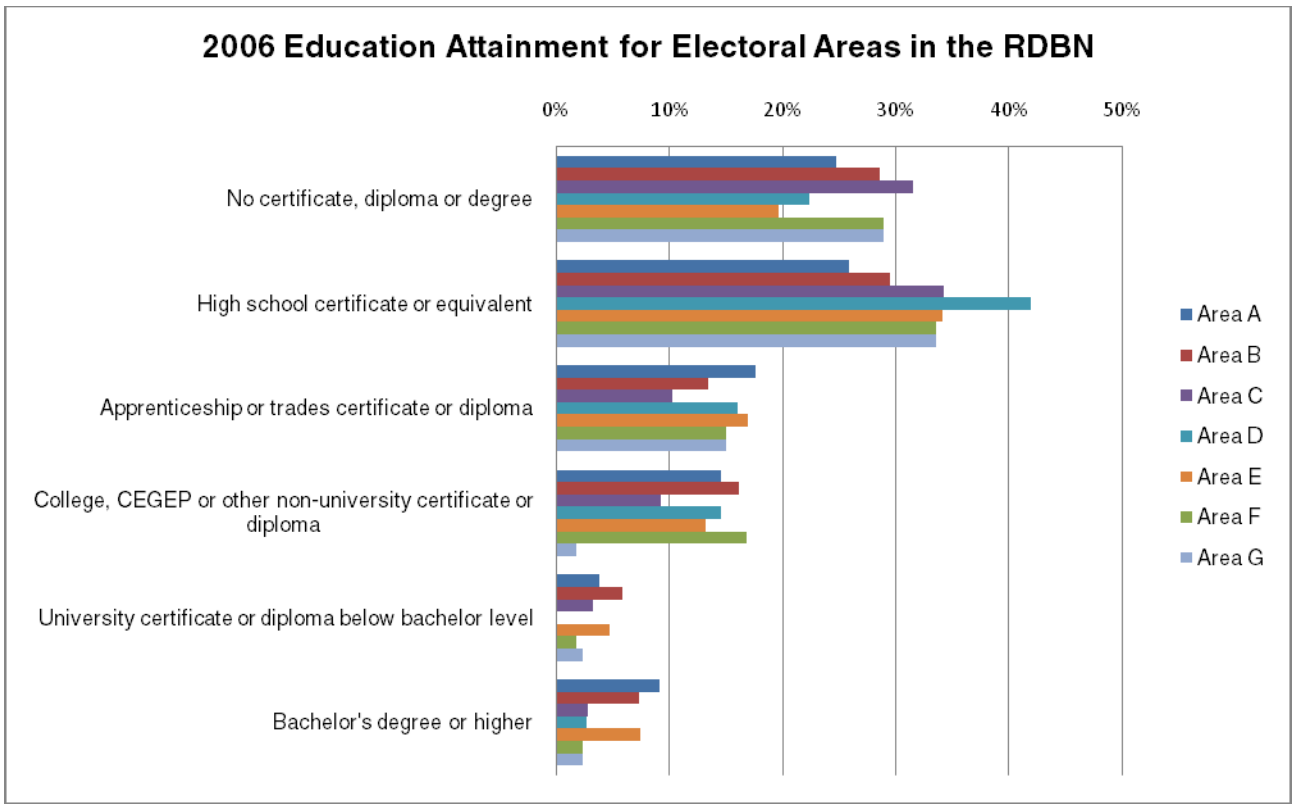
Occupations among the Electoral Areas are concentrated in trades, transport and equipment operators and related occupations; Occupations unique to the primary industry; and sales and service occupations. The highest concentration of occupations in Electoral Area G is in trades, transport and equipment operation, which also represents the highest concentration of those occupations in the labour force for all Electoral Areas.

5.1.4 Education attainment

The type and level of skills possessed by the residents of a community could offer diversification opportunities by way of labour force specializations and can give insight to the Regional District with respect to the type of programs needed to develop certain skills within the community. It should be noted that sectors that are targeted for development also require the Regional District to develop programs that will bring the skills of its workforce up to date so that they are ready to undertake or create new jobs.

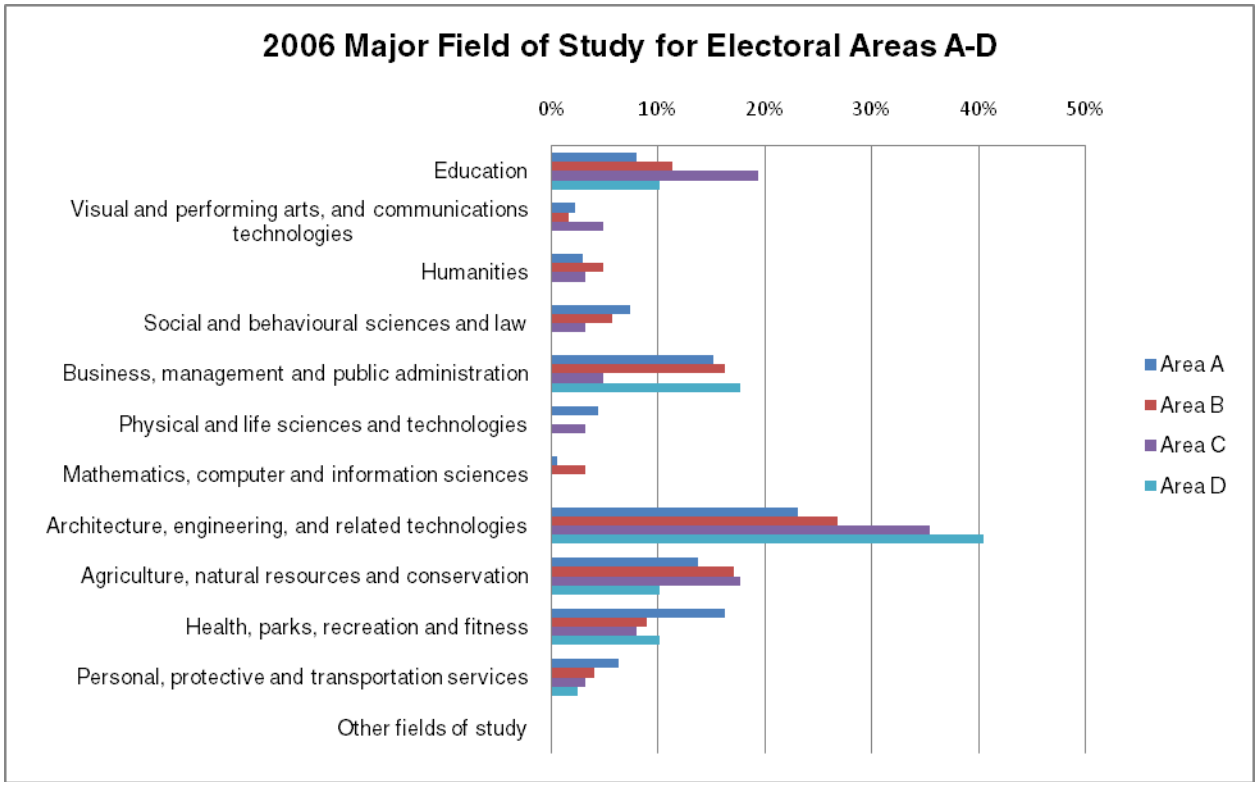
The education attainment for the Electoral Areas shows they are mostly concentrated in the following categories: No certificate, diploma or degree and High school certificate or equivalent. Electoral Area G contains among the highest proportions of population with no certificate, diploma, or degree, but also average proportions of the population with either a high school (or equivalent) certificate, or apprenticeship or trades certificate.

Figure 12: Education attainment for Electoral Areas of Bulkley-Nechako



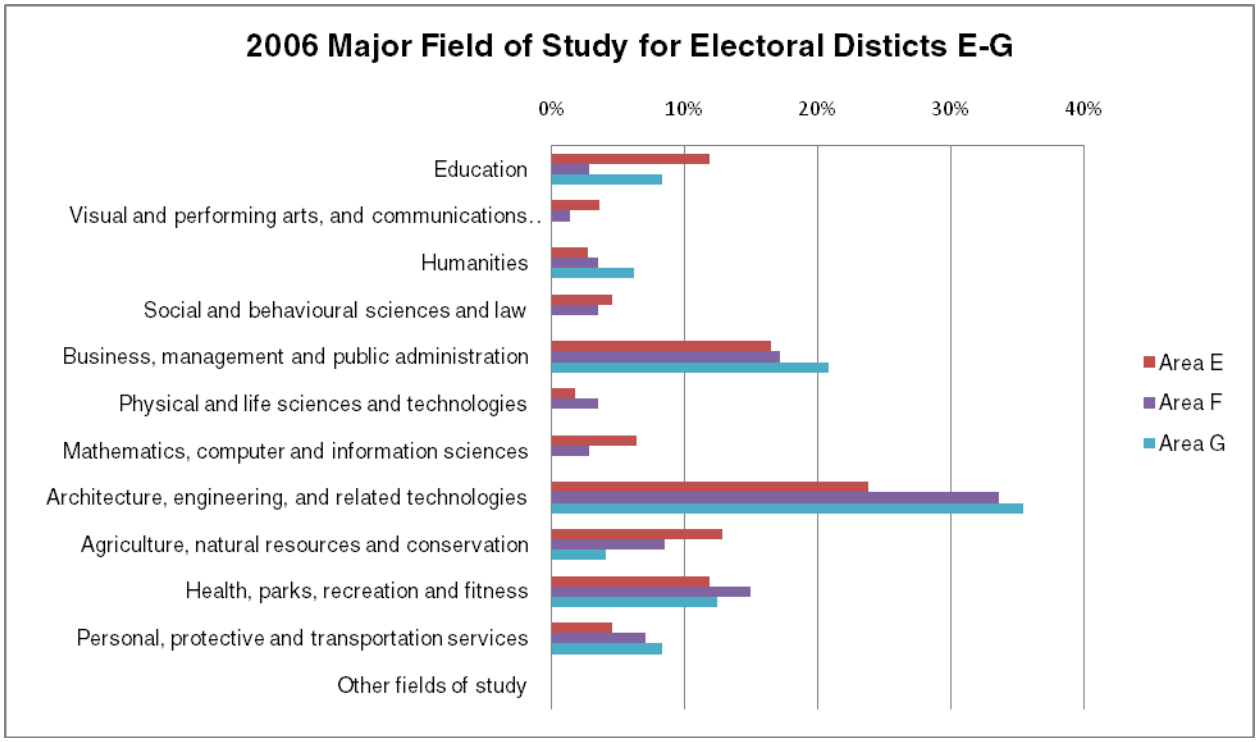
Source: Statistics Canada, 2006

Figure 13: Education attainment by major field of study for Electoral Areas A-D of Bulkley-Nechako



Source: Statistics Canada, 2006

Figure 14: Education attainment by major field of study for Electoral Areas E-G of Bulkley-Nechako



Source: Statistics Canada, 2006

Most of the population in Bulkley Nechako have their major field of study in architecture, engineering and related technologies; business, management and public administration; agriculture, natural resources and conservation; and health, parks, recreation and fitness. The major field of study with the highest concentration for 25 to 64 year olds with post-secondary credentials in Electoral Area G is architecture, engineering, or related technologies, with business, management, and finance credentials covering over 20% of the subject population as well.

5.1.5 Income

Income and earnings are particularly important to look at because they represent revenue opportunities for a community. Studies show that communities with higher incomes and earnings generally have a higher economic growth potential than lower ones. Higher disposable incomes suggest opportunities for direct, indirect and induced impacts to a community's tax base, trade, and entire local economy.

Figure 15: Average Household income for Electoral Areas of Bulkley-Nechako

2006 Average Household Income	
Electoral Area A	$69,128
Electoral Area B	$66,699
Electoral Area C	$72,541
Electoral Area D	$56,174
Electoral Area E	$57,578
Electoral Area F	$66,928
Electoral Area G	$83,303

Source: Statistics Canada, 2006

The household income figures show that Electoral Area G has the highest average household income in the regional District. This average income was almost $20,000 higher than that of the RDBN in 2006 ($63,397), as well as significantly higher than the average household income for British Columbia ($67,675).

5.2 Regional Economic Development Action Plan

The Regional District of Bulkley-Nechako (RDBN) recently developed a goal-oriented economic development action plan. It suggests that the fundamental changes occurring in the local, national and global economies demand that the approach taken in developing any new strategy be different from those of the past; they must position Bulkley-Nechako at the leading edge of the 21st Century economy, and prepare the Region for tomorrow's opportunities rather than yesterday's. This challenge is complicated in the RDBN's case by specific and pressing issues such as the Mountain Pine Beetle epidemic and international pressures on lumber markets.

The primary objective of the project was the creation of a three-to-five-year economic development action plan which will allow the RDBN to articulate key priorities and identify optimal areas of activity. Areas to be given particular consideration in the preparation of this strategy include the forest, mining and agriculture sectors. To understand the context within which economic development activity must occur, the project team carried out a range of research activities examining demographic and economic processes underway within the community. At the same time, to ensure that local insight and local perspective informed the research process, the project team carried out an extensive series of interviews with key stakeholders across the Region. This research process is summarized within two key chapters of the Action Plan report, one dedicated to the statistical information and data gathered, and one to an overview of the stakeholder consultations.

The project team then undertook an additional data-based exercise in the form of an economic gap analysis. In economics and economic development, gap analysis generally refers to a

business resource technique that enables a community to compare its actual performance with its potential performance. The process involves documenting actual and optimal patterns of investment and business activity, and identifying those areas where actual performance falls short of desirable levels of performance. Based on this approach it is possible to estimate the number of businesses that the population in Bulkley-Nechako could *theoretically* support, as well as the current number of *actual* businesses for each category type in Bulkley-Nechako. The number of actual businesses is then subtracted from the theoretical for each category. If there are fewer actual businesses than the threshold number shown, there may be a business development opportunity. The project team then compared the results of this survey with some of the findings of the stakeholder interviews, where local community representatives were also asked to identify gaps in the local economy.

Based on the research process, the project team then developed a series of potential economic development actions for the RDBN. In this stage of the Action Plan process, 44 potential projects and actions were outlined, falling into four areas:

- Mining Sector
- Forest Sector
- Agricultural Sector
- Other Industry Sectors and Areas of Interest

Through a facilitated workshop with the RDBN Board, this long list of projects was ultimately shortened to a set of 14 top priorities. These top priorities were:

Mining Priorities:

1. Develop a skills training program
2. Develop a mining industry web portal
3. Develop an annual mining forum to enhance local mineral exploration

Forest Priorities:

1. Increase community access to fibre in the Region
2. Pursue uses for beetle-damaged wood
3. Support new value-added opportunities
4. Explore international and new market opportunities

Agriculture Priorities:

1. Identify solutions for accessing local markets
2. Identify other crop types
3. Explore new markets and export opportunities

Other Priorities:

1. Asia-Pacific Twinning Program
2. Tourism initiative
3. Entrepreneurship contest emerging from gap analysis
4. Explore emerging cargo capacity strengths

A subsequent consultation session with the RDBN Board led to some of the similar projects being combined in single initiatives, and to the development of a sense of project prioritization. Each of these projects is explored within the Action Plan in some depth, including the following overview of project elements:

- A detailed overview of the project activities to be involved in pursuing the action
- An indication of the project's expected outcomes
- An identification of potential project partners and sources of community support
- A description of potential source of external project funding and financial support

Projects in the Action Plan have been grouped thematically and are linked back to key priorities articulated during the consultation process by the RDBN Board. The first group of actions is based on the Board priority of "building on what we've got" and relates to initiatives that seek to retain or expand the Region's existing business base. The second set of actions reflects the Board's desire to "diversify the local economy" and relates to actions intended to attract additional investment to the Region, or to create new opportunities in new areas of economic activity. Finally, a third group of actions relates to a set of interlinked programs that meet the twin tests of "timeliness and affordability." In particular, they seek to match available sources of funding and project support with initiatives to quickly and efficiently open up new markets to the Region's businesses, with a particular focus on opportunities in the Asia-Pacific Region.

A range of local economic development structures exist to support the RDBN's efforts on the economic development front. In Electoral Area G these include the following organizations:

The Community Futures Development Corporation (CFDC) is a federally funded economic development organization providing services to the District of Houston, Village of Granisle and Electoral Area G. Although CFDC's office is located in the community of Houston, they are inclusive of the entire study area. CFDC assists with new business start-ups as well as larger economic development projects in the area. CFDC also administers some unique federal funding programs specifically available to residents receiving Employment Insurance Benefits who would like to become entrepreneurs.

The Northwest Regional Alliance (NRA) was formed in 2006 as a result of a need for information sharing amongst northern communities. The NRA is not a formally structured organization but rather an informal group of Economic Development Officers from Vanderhoof through to the Queen Charlotte Islands that meet to discuss economic development projects in their areas as well as collaborate on regional projects. To date the NRA has undertaken such projects as "Regional Foreign Investment Attraction Marketing Material" and a "Regional Destination Resort Attraction Study".

The Omineca Beetle Action Coalition (OBAC) was formed in 2005 and is a provincially funded coalition of communities acting collectively to be more effective in ensuring the long term sustainability for the Region. The OBAC includes all communities within the Regional District of Bulkley-Nechako and the Regional District of Fraser-Fort George. Each community and Regional District is represented by an appointed member on the OBAC Board of Directors. The

purpose of OBAC is “to work to ensure sustainable development and resiliency for the Omineca Beetle Action Coalition Region.”

Some of the priority items for OBAC include:

- Regional community-based interests in future forests and fibre use;
- Mineral exploration;
- Alternative energy;
- Integrated regional transportation;
- Business retention and attraction;
- Conventional energy;
- Social/community services and support;
- Destination tourism;
- Agriculture;
- Regional cohesion, branding and profile strategy;
- Regional emergency response.

The Northern Development Initiative (NDI) Trust was established in October 2004 through an act of legislation passed by the Government of BC. NDI received $185 million to form the trust bank account. NDI’s region includes 50 communities, covering approximately 70% of the province. The NDI Trust offers grant and loan funding programs for local governments, First Nations, and not-for-profit agencies that reside within the Trust Area. The program is intended to support projects that demonstrate measurable economic benefits such as job creation and increased export sales. As of March, 2007 the Trust has approved $28.1 million in funding for seventy-eight projects. Leveraged with other funds this has resulted in over $177 million in economic development projects, close to 150 construction jobs, 36 full-time new jobs, and $11.6 million in payroll and benefits injection into our communities.

The District of Houston is also currently considering the development of a more formal economic development initiative. Economic Development is identified as one of six local priorities within the District’s strategic plan, and discussions are underway between the District, the CFDC, the local Chamber of Commerce and the Merchants’ Association regarding possible avenues of cooperation on this front.

5.3 Industrial Sectors Overview

Mining

The Mining and Oil and Gas Extraction sector in Bulkley-Nechako consists of 745 employees according to the 2006 Census. This is up by 39% from 535 in 2001. By contrast, BC had a growth of 42%. This sector makes up 3.6% of all industries in Bulkley-Nechako in contrast to BC's 0.9%.

The mining sector has well developed transportation and industrial infrastructure, which is in proximity to a deep water port, a well maintained highway system and CN Rail lines that link the Region to terminal points across North America.

There are currently two operating mines within the Regional District - Endako Mine and Huckleberry Mine in Electoral Districts E and D. Endako Mine is an open pit molybdenum mine, employing between 250 and 300 people. Huckleberry Mine is an open pit copper and molybdenum mine, employing between 250 and 300 people. There are a number of major ongoing exploration sites in the region, and some have entered into the Environmental Assessment Phase. In Electoral Area G, there appear to be three major exploration efforts that show some promise for future mineral sector development. These include:

- The Big Onion site, with potential related to copper, molybdenum, silver and gold
- The Morrison site, with potential related to copper, silver, gold and zinc
- The Lucky Ship site, with potential related to molybdenum

Any of these projects could lead to significant mining activity within the Electoral Area.

Forestry

Timber harvesting and lumber production are the dominant subsectors in the forestry industry, which has traditionally been the largest industry in the region. The majority of harvestable forest in the area has been affected by the Mountain Pine Beetle. The infestation threatens most or all of the mature and near mature lodgepole pine stands in the region, which is the majority of the merchantable timber. To date, it is uncertain how long pine damaged by the beetle will be useable for manufacturing lumber but estimates from the BC Ministry of Forests office range between 6 and 10 years.

Once the remaining high quality pine stands have been logged and the standing dead timber is no longer of harvestable sawlog quality, there is some opportunity for restructuring in the forest sector, shifting from lumber production towards alternate energy production. Local Governments, First Nations, and industry are conscious of, and responsive to, the fact that there is a need to expand in all industrial sectors. It is also important to identify methods to utilize and gain additional value from the standing dead pine to sustain the forest sector, until such time as newly replanted forests can mature and be harvested once again.

Within the Regional District of Bulkley-Nechako are the Lakes, Morice and Bulkley Timber Supply Areas, as well as a large portion of the Prince George Timber Supply Area. The TSAs are predominantly Lodgepole Pine forests (all more than 50% Pine species, with the Lakes TSA being 76% Pine species). Area G is part of the Morice TSA.

According to the 2006 census, there were 1,485 employees within this industry in the Regional District, which was unchanged from 2001. BC by contrast has declined 10% in employment. However, employment has likely declined significantly in the sector subsequent to 2006 as a result of the Pine Beetle infestation. This industry sector represents 7.2% of all industries in Bulkley-Nechako and 1.0% of all industries in BC. This suggests a specialization with the potential to export outside of the region. To maximize the economic value from forests in the future, the forest industry will need to look at opportunities for new products, processes and technologies along the whole value chain from the tree to the marketplace.

Agriculture

The Agricultural sector in Bulkley-Nechako consists of 935 employees that work on farms and 45 others employed in support activities for farms, according to the 2006 Census. This represents an increase of 10% over 2001 figures, with the province as a whole growing at the slower rate of 5.2%. Agricultural activities in the region include dairy, livestock and forage production.

Some of the agricultural opportunities for the region include green house operations, bio-energy and ranching. There also opportunities to create supporting business facilities in marketing, veterinary services, farm equipment and machinery and transportation services within the area.

Input and service suppliers, ranging from multinational firms and commodity brokers to small local businesses, play a vital role in the agriculture and agri-food system. Improvement in inputs and changing production technologies will create opportunities to develop different types of value-added products for the market.

5.4 Prince Rupert Container Port Development

United Nations forecasts of trans-Pacific container traffic show annual average growth of 7.5% for eastbound shipments and 4.6% for westbound shipments. The 2006 world maritime container traffic was estimated at 417 million TEU's. This is an increase of 10% over 2005 which was 378 million TEU's. A TEU is a unit of measurement of equivalent to 20 feet. Most containers today are 40 feet in length. Between 1995 and 2006, global container traffic volume tripled. Currently, existing west coast ports are facing capacity constraints. In addition, the rail corridor serving existing west coast ports is at overcapacity. The only major rail line with significant available capacity is CN's Northern BC Line, which ends at the development site of the Port of Prince Rupert.

The Prince Rupert Port Authority has planned to capitalize on the increased container traffic projections and existing port/rail constraints by constructing a container port at the Fairview Terminal in Prince Rupert. Phase 1 of this project was completed in 2007 and includes the construction of one berth as well as the positioning of three container cranes. Phase 1 had an associated construction cost of $170 million and the capacity to accept 500,000 TEU's per year. Phase 2 has a planned completion date of 2010 to 2011 and involves an additional 3 container cranes and an increased capacity of 1.5 million TEU's at an associated cost of $380 million. By 2020, the Port Authority sees the capacity of the Port at more than 4 million TEUs, a clear indication of the potential for development in the area.

Prince Rupert is located west of the RDBN, connected by a direct route on Highway 16 to Prince George. This positions the study area to capitalize on export opportunities. These potential opportunities include the following:

- The Prince Rupert Container Port offers the fastest route to Asia (30 hours closer than Vancouver and Seattle, 58 Hours closer than Los Angeles and Long Beach)

- The Prince Rupert Container Port offers Bulkley-Nechako residents a much closer ground shipping point compared to the next closest port at Vancouver which is 500 km further away
- The majority of the containers are projected to be inbound (Asia to Prince Rupert), which will result in an abundance of empty backhaul containers and resulting lower costs for west bound shipments. By decreasing shipping costs for export companies Northern BC is able to remain competitive with product pricing
- Shipping products by container results in lower damage to the product as well as greater delivery reliability, which are both important factors when dealing with Asian markets
- The Prince Rupert Container Port will assist the study area in attracting new businesses in the distribution and warehousing sectors, as well as assisting with the expansion of existing export businesses such as lumber and value added forest products (log home building, furniture, flooring, etc)

As noted above, one of the best economic development opportunities for North America with the increased capacity at the Port of Prince Rupert is the increased opportunity for backhaul to Asian markets, especially for the Northern Interior. Based on the connections to the CN mainline, the feeder or catchment area for these opportunities stretches across Canada and into the U.S. Midwest. In 2007, the Prince Rupert Port Authority attempted to identify specific opportunities and quantify the possible capacity. Possible opportunities are outlined in the table below. Of note to the RDBN should be the opportunities for perishable agricultural products (beef, pork) and forestry products (wood pellets, building materials).

Export	Estimated Quantity per year (TEUs)
Alaska and local Seafood	75,000 - 100,000
Pork	100,000 - 160,000
Beef	40,000 – 80,000
Forest Products	120,000 +
Special Agricultural Products: Grains and Oilseeds, Malt, Hay, Pulses	60,000 – 100,000
Cotton*	160,000 – 180,000
Recycled Paper*	40,000 – 100,000
Soybeans*	130,000 – 170,000
Petrochemicals/Plastics	TBD based on demand
Log and Modular Home Products	TBD based on demand

* Could potentially originate from the Chicago-Memphis Area

5.5 Prince George Airport Expansion

The Prince George Airport is the closest international airport to the Regional District of Bulkley-Nechako, though significant regional service is also offered from Smithers. The Prince George Airport is aggressively marketing itself as a location to do business throughout North America. It has recently developed more than 300 hectares of Airport property for commercial and industrial use, including aviation and non-aviation enterprises, forming the Prince George Global Logistics Park. The overall vision for the Park includes businesses concerned with:

- Distribution;
- Assembly, packaging, and value-added manufacturing;
- Inspection, sorting, testing, relabeling, and repackaging;
- Long-term storage; and
- Light Manufacturing.

As a next step, the Prince George Airport Authority is planning to pursue a major trans-Pacific air cargo initiative. This involves a significant upgrade to the airport facilities, including the expansion of the runway from its current length of 7,400 feet to 11,400 feet, adding shoulders, strengthening the runway, and updating equipment including lighting and navigational aids. The runway improvements were completed in February of 2009 based on matching $11 million grants from the Federal and Provincial Governments. The Prince George Airport Authority also purchased a snow-clearing vehicle and added a cargo refuelling pad, while making continuous and ongoing improvements to the lighting and navigational aid systems. The estimated $36 million dollar project has now created the third longest commercial runway in Canada, after Calgary and Vancouver.

The longer runway will provide the opportunity to refuel cargo flights to and from Japan, China, and the eastern United States. Currently, the major refuelling points on the "Great Circle Routes" flights are Anchorage and Fairbanks Alaska, so the expansions serve as a starting point to enticing a share of these flights to instead land in Prince George. It is estimated that as many as 1,560 cargo flights per year could be landing at the airport with the improvements that have been made. The runway expansion project will benefit the study area by aiding in the expansion of existing, and attraction of new, export businesses by provided new shipping options.

To make the case for Prince George, the Airport Authority has summarized the strategic advantages:

- 12 to 40 hours closer to Asia than other west coast marine ports
- 82 rail hours from Chicago
- 17 rail hours from Prince Rupert
- 12 to 26 truck hours access to major North American markets
- Only hours to major North American destinations by air
- Quick access to the Prince George CN Worldwide Distribution and Intermodal Centre, opened in 2007

With both Prince George Airport and the Prince Rupert Port facilities, the RDBN may be well-placed to take advantage of low-cost "backhauling" opportunities. Ships and cargo planes coming from Asia to North America are largely full, carrying Asian-made goods to the large North American market. However, the volume of cargo making the return trip from North America to Asia is relatively small; this low demand for "backhauling" items to Asia on the return leg of the trip translates into reduced cargo shipping costs. This has the net impact of making the RDBN one of the lowest-cost jurisdictions in North America for shipping goods, materials, resources and produce to Asian markets.

By working with these agencies and interests, the RDBN could develop a target list of backhaul opportunities based on local products and resources, and proactively seek to connect these products to external markets. Perishable items should be directed toward the Prince George Airport for rapid transport to Asia, while non-perishable goods should be directed to Prince Rupert for transport by sea. The RDBN's enviable position on this front may lead to other opportunities as well, such as product assembly and light manufacturing. Often, products are shipped in a disassembled format to cut down on the space (and number of shipping containers) required to transport them. Closer to their final destination, it is often necessary to operate assembly plants and facilities in order to prepare those goods for delivery to market. Bulkley-Nechako may be well-positioned to attract these kinds of assembly operations.

6 Infrastructure and Utilities

6.1 Hydro

As the third largest electric utility in Canada, BC Hydro serves an area containing approximately 94% of the provinces population, including the Regional District of Bulkley-Nechako. The primary business of BC Hydro is the generation and distribution of electricity, as well as ownership of the Provincial transmission system including towers, poles, and substations within the service area. BC Hydro provides customers with hydro at the distribution and transmission (above 35 kV, for larger industrial customers) levels. The BC Transmission Corporation (BCTC) plans, operates, and maintains those hydro infrastructure assets within British Columbia. The primary mandate of the BCTC is to maintain fair and equitable access to the provinces hydro transmission system.

Both BCTC and BC Hydro have policies in place to construct new infrastructure for approved industrial and other development, as demand requires. BC Hydro is the primary contact for hydro and infrastructure requirements regardless of industrial needs. For requirements above the distribution level, BC Hydro coordinates with BCTC to facilitate service.

There are also opportunities for generator interconnections to the provincial distribution system for area industries that have excess capacity or energy generation capabilities, such as wind power or diesel generation. These customers are referred to as Independent Power Producers (IPPs), and both BCTC and BC Hydro support the development of clean energy projects throughout the province. Generally, industries wishing interconnections to the transmission network must apply through the BC Transmission Corporation. BCTC has specific policies to identify how these interconnections are planned, designed, and constructed, as well as responsibilities regarding costs.

Existing transmission level infrastructure in the area largely follows the Highway 16 corridor, which runs through the centre of the Electoral Area. Overhead hydro lines (500 kV and 138 kV) run along the corridor from the Williston Substation. There is a 138 kV substation in Houston, which is serviced by a 138 kV line stepped down at the 500 kV substation in Glenannan. In addition, Houston Forest Products and Canfor each have existing 138 kV substations on site. Granisle is serviced by a 138 kV line passing from the Topley Substation to the Babine substation, to the west of the Village. Currently through research for the Morrison Project, Pacific Booker Minerals is investigating the feasibility of extending the existing 138 kV transmission line from the substation to their site on the East side of Babine Lake, as well as associated improvements to the Babine substation. Potentially all areas served by the public transmission network have access to three-phase power, including existing and future industrial areas within the Regional District.

New Infrastructure

No major capital expansions are planned for BC Hydro within the Regional District, but the current capital projects to increase generation at stations around the province will have a positive effect on hydro distribution within the RDBN. The BCTC is planning several capital

projects, with a horizon of 2010/2011 and beyond, however none are planned within the Electoral Area. Any improvements to public infrastructure made by Pacific Booker Minerals will likely be funded by the company.

Establishing price quotations for industrial connections or the construction of hydro infrastructure in rural areas depends on a wide variety of factors including access, the type of industry, required loads, required facilities/infrastructure, power consumption, and distance from connection points. Industries can minimize costs for new connections by utilizing existing infrastructure or locating close to existing substations. In this case, BC Hydro policies dictate that customers are responsible for the design, construction, maintenance, and ownership of the transmission line from the point of interconnection, as well as all associated costs. BC Hydro is responsible for the design, construction, maintenance, and ownership of the interconnection facilities as well as any reinforcements or upgrades to the system, with the customer covering the costs less the projected revenue of the service extension.

There is also an opportunity for operational cost savings by purchasing hydro at the transmission level from BC Hydro or other hydro providers (35 kV or Higher). Industries wishing to do this can construct an on-site transformer to step down the hydro to a suitable level. In this case, the customer is responsible for the design, construction, maintenance, and ownership of the on-site substation (and as noted above, the transmission connections to the grid), as well as any associated costs. Existing infrastructure up to 500 kV in the Electoral Area could facilitate this option for a range of industrial uses. It should be noted that since all new connections are unique, BC Hydro reviews each new connection separately to determine the best method of connection, as well as the extent of any system reinforcements needed.

6.2 Rail Access

The CN mainline roughly follows the Highway 16 corridor through the study area and the District of Houston, and provides access to both Prince George and Prince Rupert. The two major industries within the Electoral Area (Canfor Houston Sawmill and Houston Forest Products) are each served by dedicated rail spurs and sidings from the mainline. Improvements along the CN mainline are currently being undertaken to facilitate efficient intermodal service to and from the Port of Prince Rupert.

New Infrastructure

Industry settling in the area or local authorities may request that a siding be constructed to service existing industrial facilities or greenfield development. This process involves initial contact with CN, development of detailed design, review of design by CN officials, construction, and final review by CN officials as constructed (completion). Costs through initial site preparation and final construction are paid for by the contractor/developer. It should be noted that as a major transportation line connecting the port in Prince Rupert and the distribution centre in Prince George, CN may be reluctant to support construction of dedicated sidings or spurs which could potentially slow down service along the corridor.

6.3 Telecommunications

Telecommunications coverage in Electoral Area G includes a variety of digital cellular, as well as dial-up, wireless, DSL, and cable internet services. Communications infrastructure is mainly provided by Telus Communications and Navigata Communications, with each operating backbone fibre-optics and wireless infrastructure in the area. Additional communications services in the Electoral Area are provided by small ISPs or cable providers that have purchased or leased fibre-optics, or operate wireless access points/towers. In the remote areas of the Regional District, some industries employ satellite telecommunications technology where there is a lack of other infrastructure.

Cable and DSL internet is largely restricted to areas in close proximity to municipalities with fibre-optic availability. Telus' national IP network includes fibre-optics passing through the study area, between switching stations in Prince George and Prince Rupert. Navigata Communications also operates a national IP network that passes through the Regional District. Both Navigata Communications and Telus Communications have been involved in the expansion of fibre-optics in the northern interior through their Northern BC and Connecting Communities initiatives, respectively. Since 2004, these efforts have brought high speed internet to rural locations and some First Nations communities in the Regional District.

Recent expansions to the network of communications towers throughout the Regional District have resulted in expanded wireless coverage from Canada's largest telecommunications firms; including Bell, Telus, and Rogers; as well as small ISPs in the area like Cybernet Communications. While this has resulted in an expanded service area through wireless infrastructure improvements, availability can still be limited due to the physical topography and vegetation of the area ('line of sight' availability).

6.4 Natural Gas

Natural Gas within the Electoral Area is provided by Pacific Northern Gas (PNG). Existing infrastructure in the Electoral Area is provided as a result of the PNG mainline passing through along the Highway 16 corridor. Lateral lines service both the District of Houston and the Canfor Saw Mills. The Village of Granisle is serviced by the Granisle Propane Plant.

Costs to install natural gas connections are dependent upon the location of the parcel, distance between the new use and existing infrastructure, required loads, and the time of year that the line is being installed. Different industrial types require different sizes of gas lines and pressure required to deliver the gas, so PNG can only provide rough estimates regarding the installation of Natural Gas.

6.5 Roads

The main transportation corridor in the Electoral Area is Highway 16, which runs through the District of Houston. In the rural areas of the Regional District, the Ministry of Transportation and Infrastructure (MoT) is responsible for transportation planning and development for all public roads. Through its transportation planning activity, the Ministry ensures that industrial development does not have an unacceptable impact on the existing road infrastructure and that

unsafe conditions are not created. Ministry involvement in industrial development is typically at the subdivision, rezoning, and access approval stages.

The Ministry of Transportation and Infrastructure is the subdivision approval authority in the rural areas of the Regional District. As part of final approval, the Ministry ensures that all new lots are serviced by a road, and that the existing road network will not adversely be affected by the traffic generated from the new development. As a condition of final subdivision approval, the Ministry may require the construction of new roads or improvement of existing roads. If the subdivision is proposed for land adjacent to a municipality, the Ministry may refer the application to that municipality for comment, in order to facilitate cross-jurisdictional cooperation for factors like road networks.

The Regional District is the approval authority where land requires a Rural Official Community Plan or Zoning Bylaw amendment for industrial development. Applications are referred to the MoT for comment on road related issues, and the Ministry must approve all rezoning within 800 metres of a controlled access highway. As a condition of approval, the Ministry or the Regional District may require construction of new roads, or improvements to existing roads for zoning bylaw amendments.

New businesses that establish adjacent within the Study Area may require a new Access Permit, as Highway 16 is a controlled access highway. The ministry will consider access to a Controlled Access Highway only where:

- it has been proven that no other reasonable alternative exists;
- direct access or limited access would provide better overall performance of the study area network roads; and,
- direct access does not impede the safety of the travelling public.

Generally, access is restricted to side roads, where available. Through the access permit approval process, the MoT will comment on the design of the new access, or the improvements that must be made to an existing access in order to accommodate the vehicle traffic generated by the new use.

New infrastructure

Aside from planned general highway improvements, there are no major road infrastructure improvements planned for the Highway corridors through the Electoral Area. General improvements scheduled for 2009/10 include the resurfacing of Highway 118 and local side roads from Topley to Granisle.

7 Industrial Land Requirements

7.1 Introduction

This section identifies the industrial uses that have potential to locate in Electoral Area G and includes uses being targeted by local economic development initiatives. It also identifies the estimated land requirements for each use identified. The industrial uses identified are organized into either the 'Forestry', 'Mining', 'Agriculture,' or 'Other Special' resource sectors.

An evaluation is then made of the industrial uses considered most likely to locate in the study area in the near future. This information provides a basis for understanding the industrial land needs in Electoral Area G.

It should be noted that light industrial uses (particularly those with a service, retail, or office component) are not specifically encouraged within this area, for the purpose of this study, to be located close to, or preferably within, the District of Houston and the Village of Granisle. Please refer to the relevant Zoning Bylaws for industrial zoned properties within those municipal boundaries. General descriptions of the following relevant zones can be found in Section 3 of this study:

- Regional District's M1, M2, M3, H1 B, H2, Ag1 and RR1 zones
- District of Houston's M1and M2 zones

It is noted that this information is based upon literature reviews and extensive consultation with community stakeholders and industry experts. It is not a scientific study and is intended only to provide a rough estimate of land needs within the study area.

7.2 Forestry and Forest Products Sector

The Canadian forestry industry, long one of the stalwarts of the Canadian resource-based economy is at a significant tipping point. Of all sectors of the resource economy, the decline of forestry seems to be one of the most severe. An estimated 25% of the total workforce in the industry has been displaced from 2003 to 2008, as the industry continues to restructure in an attempt to stay competitive. In British Columbia, perhaps the most devastating factor to the provincial industry has been the Pine Beetle epidemic. Despite this, forestry still remains one of the focal industries in British Columbia, especially in the rural areas of the Northern mainland. Several factors are contributing to shape the Canadian forestry industry:

Increased international competition

Over the past few years, there has been increasing competition in the global forestry industry, decreasing Canada's market share. From 2004 to 2008, export revenue in the forestry and logging industry fell by approximately 37%[1]. This is in part based on the rise in forestry exports from nations like Brazil, New Zealand, China, Russia, and Chile.

[1] Industry Canada, Trade Data Online

Rising energy costs

As with all resource-based industries, a determinate of success is in part the ease with which the comparatively lower cost raw materials are moved to their processing destinations. With the rise in the cost of energy over the past few years, especially in transportation and fuel, there has been added stress on the industry to both harvest sawlogs and transport them.

Decline in Home Building

The U.S. subprime mortgage crisis and the subsequent decline in U.S. and Canadian home building over the past year has had a negative effect on the Canadian Industry, as access to credit for homebuilders is down, and foreclosures offer new home buyers a comparative bargain price for housing. Demand has decreased significantly, and most reports until recently have forecasted only moderate, if any, recovery over the short term. When paired with the increasing value of the Canadian dollar putting stress on commodity export, it becomes evident that even with an uptick in demand the U.S. market can likely be supplied by multi-nationals in Canada, or comparatively lower cost sawmills in the U.S. On the positive side, emerging Asian markets offer an opportunity to supplement this loss of demand for home building materials.

Increase of value-added niche products

The forestry industry has benefitted from the rise in value-added niche products, especially for beetle damaged wood. Perhaps the most notable product in this regard is the increase in production of wood pellets. The demand for many of these value added products is based in the increased use of forestry residue in alternative energy projects, and to some extent, biotechnology applications (bioplastics, biofibres, and biopolymers). The move towards environmental sustainability will drive increased demand for these value-added niche products.

Decline in demand from pulp and paper industry

In addition to the housing industry, the decline of the paper manufacturing industry has contributed to the shape of the Canadian forestry industry over the past few years. As a major consumer of forestry products, pulp and paper mills form an important part of the forestry value chain. The main drivers forcing the decline of the paper industry (and thus the forestry industry) are the rise in electronic media, as well as the increased prevalence of paper recycling.

Relevance to RDBN

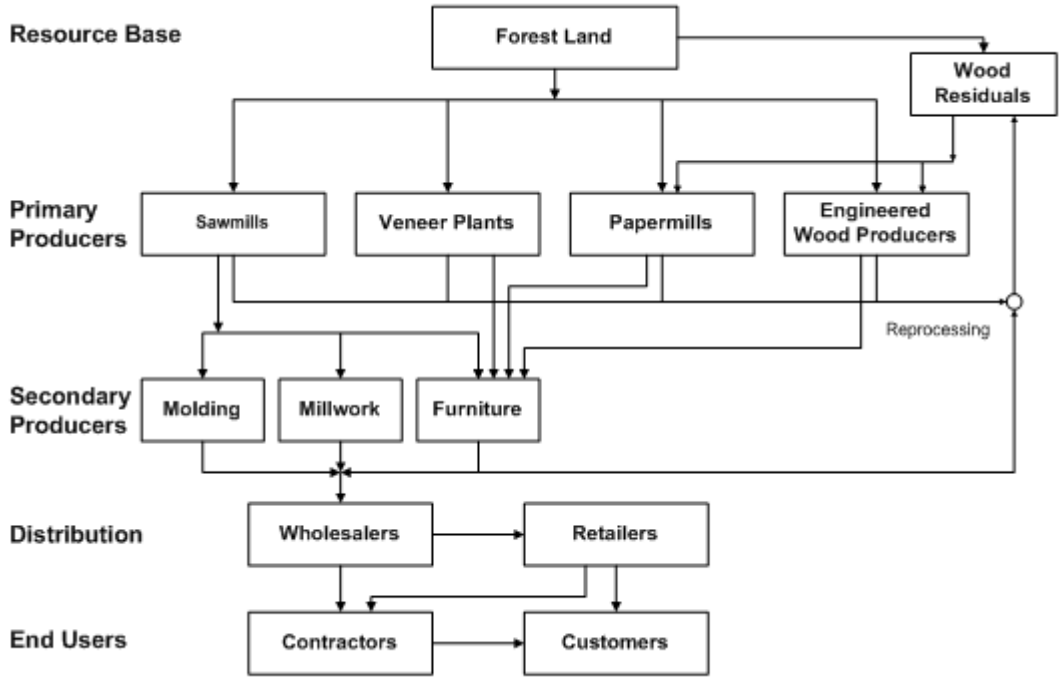
Common to the rural areas of the Northern interior, forestry forms a significant part of the economy of Bulkley-Nechako. With almost 23% of the workforce engaged in the forestry and logging; wood products manufacturing, or paper manufacturing industries, the local economy remains susceptible to these industry trends, as has been noted by the idling and closure of local sawmills in recent years. However, based on good access to raw materials, a slowly recovering domestic home building market, an increasing number of value-added applications for beetle damaged wood, and new back-haul opportunities to emerging Asian markets, the forestry industry in the RDBN may be poised for a good recovery.

7.2.1 Forestry and Forest products in the Regional District of Bulkley-Nechako

Due to the Mountain Pine Beetle epidemic, the forest sector will be facing a lack of sawlog quality fibre and an abundance of dead Mountain Pine Beetle affected timber within six to ten years. The decrease in sawlogs presents a significant threat to existing sawmill operations; however, it presents a unique opportunity to diversify from lumber production into other forest sector operations while making use of the abundance of poor quality fibre.

The RDBN's Economic Development Action Plan includes the following depiction of the forest industry value chain, displaying information regarding possible activities in the value-adding arena. These opportunities may apply to beetle-affected fibre, to normal fibre, or to both. In general, new industrial opportunities will fit within this schematic.

Forest Industry Value Chain



Some examples of new businesses that could capitalize on the available wood waste are listed below:

- Pulp/Paper Mill
- Large Scale Secondary Manufacturing
    - Pellet Plant
    - Plywood Plant
    - Fibreboard
    - Log Home Building
    - Fence Post Manufacturing
- Small Scale Secondary Manufacturing
    - Furniture Manufacturing
    - Flooring/Wainscoting Manufacturing
    - Decking Manufacturing
- Bioenergy Plant

The construction of the Prince Rupert Port (section 5.3) will also assist in the sustainability of large and small scale manufacturing plants. It will provide a close ground shipping point (500 km) for product export, as well as the shortest shipping route to Asia and decreased export costs in the utilization of empty backhaul containers.

A notable strength for Electoral Area G is the existing number of modern forestry plants that already operate in the District of Houston. While limiting access to saw logs, the plants provide a good supply of biomass and forestry residue for secondary manufacturing opportunities. Small-scale secondary manufacturing plants could include light manufacturing and treatment/processing of wood products. In the case of specialty mill operations, a Shingle and Shake Mill has been previously identified in the gap analysis within the RDBN's Economic Development Action Plan, and could be the type of value added process suitable for the Electoral Area. As well, the Houston/Topley/Granisle Rural Official Community Plan does not specifically restrict heavy industrial development in the rural area, so there is a possibility for secondary manufacturing at a larger scale. Both the warehousing and community kiln operations provide support to smaller operators that may wish to undertake a niche activity within the forest products industry.

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Large-scale Secondary (Value Added) Manufacturing[1]	▪ 3-Phase Power ▪ Good Road Access ▪ Rail Access ▪ Water	M2	80 ha. +/-
Small-scale Secondary (Value-added) Manufacturing[2]	▪ 3 Phase Power ▪ Road/Rail Access	M2	2-8 ha.
Log yard	▪ Good Road Access	M2	2-4 ha.
Community Kiln	▪ Road Access	M2	2 ha.
Portable sawmill and Lumber Kiln	▪ Road Access	Ag1 H2 RR1	G.F.A. < 45m^2
Warehousing	▪ Good Road Access	M1	1-2 ha.

[1] Large-scale Secondary Manufacturing includes: Pellet plants, plywood, fibreboard, and fence post manufacturing.
[2] Small-scale Secondary Manufacturing could include specialty mill operations, furniture manufacturing, flooring, and treated wood products (poles, posts, decking, etc.).

7.3 Mining and Subsurface Resource Sector

The Canadian and global mining industry are not immune to the global economic downturn, especially over the last several financial quarters. However, leading up to the last quarter of 2008, the mining industry has enjoyed one of the most prosperous periods on record. Exploration levels in Canada were high, and global metal prices were at or near historically high levels. As well, emerging markets offered good growth prospects over the medium term. By far the largest threat to the mining industry and many other Canadian industries is a prolonged economic downturn. Despite the downturn, British Columbia remains one of the best-positioned to meet the growing mineral needs of the emerging markets, and the Provincial government is committed to supporting the industry. However, there are several broad issues of note that affect the mining industry, with particular relevance to British Columbia:

Shifting Demographics

Over the next decade, the industry faces a serious human resource challenge. The projected increases in demand paired with the generally aging population of the industry will place pressure on the ability to meet the increased demand. The Mining Association of Canada suggested in 2008 that over the next decade there will be an opportunity for approximately 9,000 new workers in the sector, while at the same time approximately 65% of the skilled core in the mining industry (especially geoscientists) will be reaching retirement age[2]. There will be a greater need to attract a wider range of workers to the industry, as the mining sector is traditionally underrepresented in females, youth, and minorities[3].

Volatile commodity/mineral prices

[2] The Mining Association of Canada, Facts and Figures, 2008
[3] ibid

Over the last few months, there has been a significant drop in the price of commodities, from the rapid increase buoyed by demand from emerging markets leading up to the downturn. For example, copper has fallen from a high of $4.00 USD per pound to as low as $1.30 USD per pound[4]. Many analysts predict that these low prices will continue for some time, but could also stabilize based on the recovered demand from markets and the cancellation or postponement of several projects. Overall, this uncertainty may keep prices volatile until there is a well established market in place again.

Lack of access to financing

Among other things, the global economic downturn has affected the ability of businesses to secure financing and credit. In the mining sector, access to finances is paramount to exploration, and thus growth. In BC, a significant portion of activity is in mineral exploration, so a protracted economic downturn could potentially affect the ability of the industry to grow.

Increasing environmental sustainability pressures

Among other factors, the environmental sustainability movement has been one of the main drivers in the increase of capital costs in the mining sector. Mining involves relatively major intrusions into natural environments, as well as significant greenhouse gas emissions. So, investments in environmentally sustainable practices, as well as open project review policies and community relations will continue to increase costs for both exploration and mining activities.

Deteriorating Infrastructure

Across Canada, municipalities and regional governments are dealing with a growing infrastructure deficit. Due to historic lack of funding from the federal government, infrastructure in many areas has fallen into disrepair. As Canada's largest customer for the transportation sector, much of the success of the mining industry is dependent on infrastructure allowing efficient movement of products. However, British Columbia may be slightly ahead of the curve in this regards, as effects have somewhat been mitigated by federal infrastructure stimulus, as well as funding through the Asia-Pacific Gateway and Corridor Initiative, and major construction projects in advance of the Vancouver 2010 winter Olympics. The challenge will be to maintain these government investments in infrastructure.

Demand from emerging markets

Overall, based on the rapid industrialization of emerging markets, there was a steady increase in the demand for minerals, especially those in steel-making, coal, and metals. As noted before, BC is well poised to capitalize on this growth, as a major supplier of these minerals, and the close geographic proximity to the major markets (China and India).

Relevance to RDBN

[4] Mining Economic Taskforce Report, 2009

These trends have specific relevance to the rural areas of the RDBN. Generally speaking, the population within Bulkley-Nechako is aging at a faster rate than the province. Paired with the loss of youth in some Electoral Areas, the mining industry in Bulkley-Nechako may be subject to major human resource challenges, in order to meet potential demand. In addition, a number of projects within the Regional District are at the exploratory/environmental assessment stage. A significant threat lies in the possible continuation of the downturn, translating into further delays or cancellations of projects. In addition, depressed commodity prices could further the layoffs and closures already seen in the Regional District.

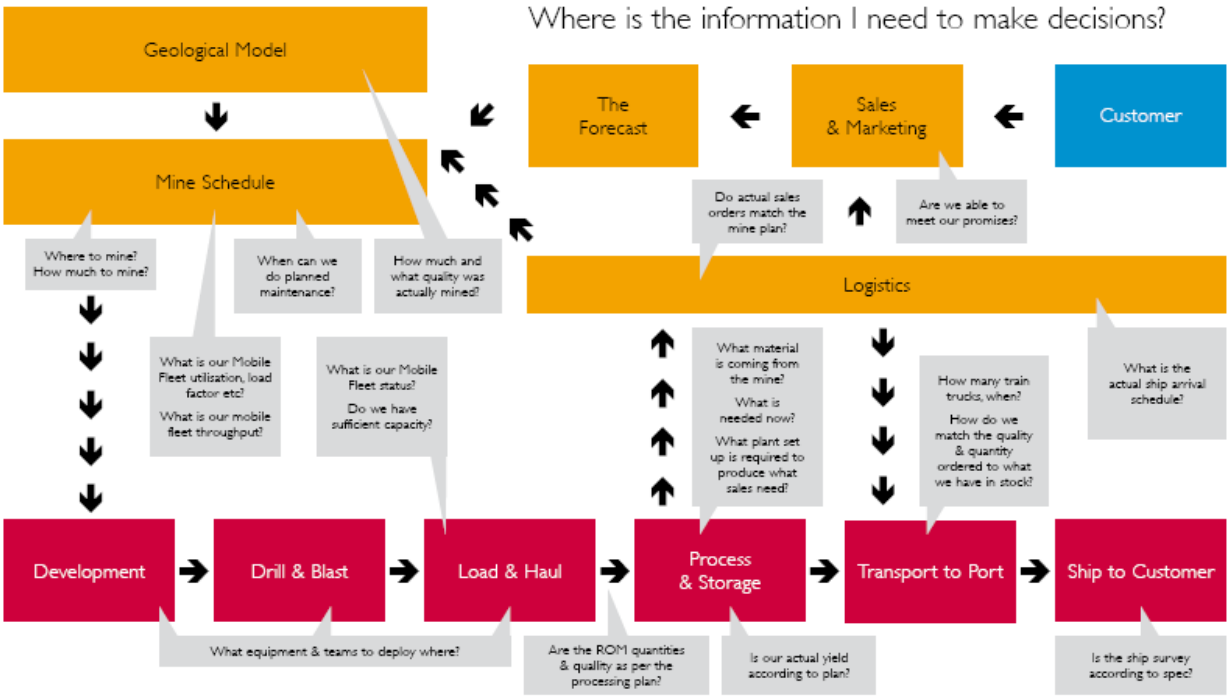
On the positive side, the demand from emerging markets lines up well with the mineral strengths of the Electoral Area. As demand surges for steel-making and metals, the mining strengths of the Regional District in copper, molybdenum, and to some extent gold, could begin to assist in the recovery of the sector, perhaps at a faster rate that other areas of Canada dependant on other materials. As well, with the growth of the Port of Prince Rupert, the RDBN is well positioned geographically to meet the needs of these markets.

7.3.1 Mining and Subsurface Resources Sector in the Regional District of Bulkley Nechako

There are currently no operating mines in the study area, although there are numerous exploration sites and considerable mineral showings within Electoral Area G, including the Big Onion, Morrison and Lucky Ship sites. In addition, Area G is in close proximity to the Huckleberry Mines. If mining activity begins in the area, it will present significant new opportunities for existing skilled trade workers and other support businesses in the area, including new industrial operations.

The RDBN's Economic Development Action Plan includes the following depiction of the mining industry value chain, displaying information regarding possible activities in the value-adding arena. In general, new industrial opportunities will fit within this schematic.

Mining Industry Value Chain



Some of the support business opportunities in the mining sector include:

- Drilling & Blasting Support
- Welding & Fabricating
- Processing & Warehousing/Storage
- Transportation & Logistics (Ore Hauling)
- Lab Analysis (Samples)
- Environmental Remediation
- Industrial Park Development

Given the potential for the Smithers-Telkwa Region to develop and the exploratory/planned work in the Granisle Area, there could be potential for the development of a range of activities across the traditional mining value chain in Electoral Area G. Since the opportunities in the immediate area are still under investigation, and Houston has an existing campus of the Northwest Community college with specialized trades and mining training, over the short term the most opportunity within this sector will likely be on the supply side. This would address the gap in labs/testing facilities noted in the RDBN Economic Development Action Plan.

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Warehouse Facilities for Sample Storage/Explosives/Equipment	▪ Good Road Access	M1	1-2 ha.
Labs or Other Analysis/Testing Facilities	▪ Road Access ▪ High-speed internet and Telecommunications	M1	0.5-1 ha.
Maintenance, Heavy Equipment /Transport Repair, Welding, Fabricating	▪ Road Access	M1	0.5-1 ha.
Trucking/Transportation and accessory uses (Storage)	▪ Good Road Access ▪ Rail Access (depending on Product)	M1	2-4 ha.

7.4 Agricultural Sector

Canada is in the fortunate position of having a diverse agricultural landscape from coast to coast. In nearly 230,000 farms across the country, Canadian agricultural operators produce a wide range of grains, oilseeds, vegetables, fruit, and livestock. However, even as a large and diverse agricultural producer, Canada is still part of the global food market. As both an exporter and importer of food, Canada is subject to global trends. Some of the largest trends are presented below, but underlying and connecting most of these are factors including food safety, consumer demand, climatic pressures, and industry restructuring. Examples of broad themes in agriculture include:

Concerns/perceptions about Agricultural Products

From Bovine Spongiform Encephalopathy (BSE or "Mad Cow Disease") to Escherichia coli (E. Coli) there is a growing concern about food safety across Canada and the world. Compounding this is the increased globalization and consolidation in the industry, making it more difficult to trace where products originate. Therefore, in Canada, the response to this is through traceability standards, which begin to pinpoint the exact origin of products, and thus, increase food safety[5]. However, while this movement towards automation saves costs over the longer term, it presents a relatively high cost to producers at the introduction of the technology.

Perhaps less a problem currently, the Canadian livestock industry has been subject to price and demand volatility based on the presence of BSE. Despite the fact that the disease has only shown up intermittently in Canadian livestock, Canada has been subject to severe sanctions in the past. While markets have re-opened to some extent, Canadian beef farmers are only slightly starting to recover.

Consolidation and industry restructuring

Generally speaking, there has been both a global and national movement in agriculture towards consolidation and industrialization. Essentially, the trend has been to increase in size, whether it

[5] OMAFRA, Benefits of Traceability for Agriculture, 2009

is acreage farmed or livestock headcount, in an effort to stay competitive within an increasingly consolidated agricultural industry. Evidence of the consolidation is shown through the 2006 census, where there was a 5.5% decrease in Canadian farm operators (approx. 20,000) from 2001 to 2006[6]. The number of larger farms (with gross receipts over $250,000) increased by 13.8% over the same time period[7].

Increase in value-added niche products

Based on changing consumer demands, there has been an increase in value-added niche products in Canadian agriculture. Most notably, there has been an increase in the number of certified organic products, in an effort to meet the demands of a population that is more concerned with the way food is produced. In June 2008, Statistics Canada reported that total sales of certified organic products in Canada grew 28% overall, with sales of pre-packaged organic products up 31% and fresh products up 22%[8]. As well, like any other industry, agricultural producers are looking for effective ways to gain the most value for their products, and often the best way to do that is through farm-scale pre-processing of products – for example, selling pre-packaged certified organic fruits and vegetables rather than the raw products.

Buy Local Initiatives

Related to the above is an increasing demand to buy food and agricultural products locally. Drivers for this movement range in nature, but they are mostly based in concerns over food safety and food production practices, as well as increasingly discerning customers, and environmental concerns associated with transportation. As well as recognition of where products come from, an additional driver of this movement is the need to support local farmers. In 2003, the Region of Waterloo Public Heath found that the portion of the final buyer's price paid to the farmer increased from approximately $0.09 for every dollar spent, to as much as $0.80 or $0.90 for every dollar in direct marketing initiatives[9]. So, the movement towards "buy local" initiatives has the potential to benefit both local farmers and consumers.

Aging population, lack of succession

Like all Canadian industries, the agricultural industry is subject to the generally aging population, namely that the age of farmers in Canada is increasing. From 2001 to 2006, the average age of farm operators in Canada grew from 49.9 years old to 52.0 years old[10]. Coupled with the lack of youth engagement in agriculture as a viable career, and pressures of youth retention in rural areas, Canada may be at a tipping point with regards to replacing the aging workforce, and thus supplementing food production in Canada.

---

[6] Statistics Canada, 2006 Census of Agriculture
[7] ibid
[8] Statistics Canada, Canadian Agriculture at a Glance, Organic: From Niche to Mainstream, 2008
[9] Region of Waterloo Public Health 'Growing food and economy' 2003
[10] Statistics Canada, 2006 Census of Agriculture

Increasing costs

The Canadian agricultural industry is also subject to the same rising cost pressures being extended on most other Canadian industries. Perhaps the most pressing issues are the increasing cost of fuel, which is placing stress on both harvesting and transporting agricultural products, and the volatility of the Canadian dollar, which is affecting the export of agricultural products. However the trend towards alternative energy, most notably through biomass, should offset energy costs to some extent over the coming years. Also pressing is the generally increasing cost of animal feed (drought, crop diversion to energy), which is placing stress on the profitability of livestock operations[11].

Relevance to RDBN

As a Region with a comparatively smaller agricultural sector based mainly in livestock production, Bulkley-Nechako is generally susceptible to these national and global trends. Especially of note to the Regional District is the volatile market for livestock operations, as well as increasing consolidation of operations – leading to an increase in acreage/size of farms and operations paired with a decrease in operators. However, as a smaller industry, which still maintains some diversity in operations (livestock, grains, vegetables, tree fruits), the agricultural sector in Bulkley-Nechako maintains a certain level of agility and stability. Smaller operations can offer more specialized niche products, which could be a relative strength for the Regional District given backhaul opportunities, access to local markets, and the growing local demand and potential international demand for niche products.

7.4.1 Agricultural Sector in the Regional District of Bulkley-Nechako

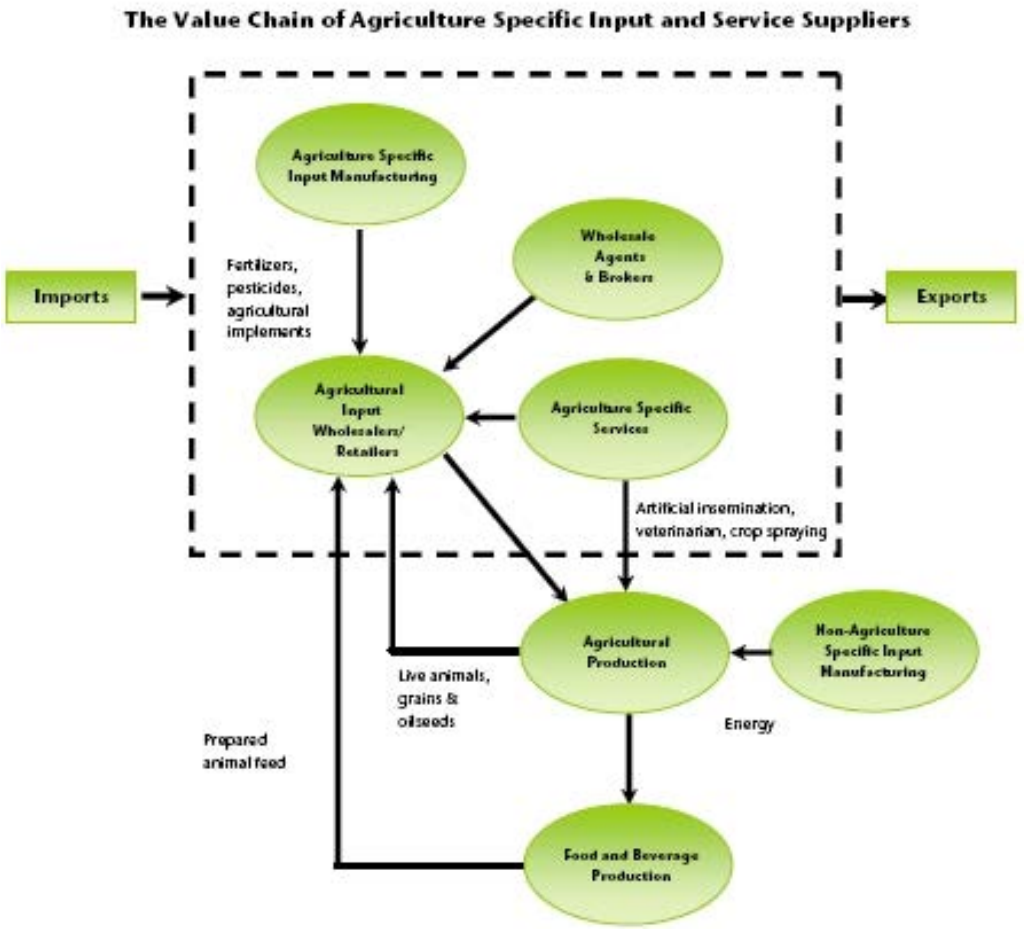
Agriculture, though present in the RDBN for many years, is still in many ways an emerging industry. According to the 2006 Census of Agriculture, the total area of farms in Electoral Area G accounted for approximately 8% of total farm area in the Bulkley-Nechako Census District. However, there may be some opportunity for small-scale agriculture industries such as greenhouses and small processing facilities. Many industrial uses closely related to agriculture do not require industrial zoning, and do not need to be accommodated in this strategy given the abundance of Agricultural Land Reserve (ALR) parcels throughout the region and abundant zoning that allows agricultural related industry. Only a limited number of agriculture related uses require industrial zoning.

With the future restructuring of the forest sector in the area, there is potential for local farmers to secure more crown land for farming purposes. Also, collaboration with the local educational institutions (e.g. College of New Caledonia) for the purposes of offering agriculture training programs may assist in retaining youth locally to pursue farming opportunities.

The RDBN's Economic Development Action Plan includes the following depiction of the agricultural sector value chain, displaying information regarding possible activities in the value-adding arena. In general, new industrial opportunities will fit within this schematic.

[11] CBC, From wheat to meat: cattle producers anxious over jumping feed prices, 2008

Agriculture Sector Value Chain



Input and service suppliers, ranging from multinational firms and commodity brokers to small local businesses, play a vital role in the agriculture and agri-food system. Improvement in inputs and changing production technologies will create opportunities to develop different types of value added products for the market. The value chain needs to be emphasized in program design and implementation. Some of the opportunities outlined for the region include:

- green house operations
- bio-energy
- livestock, ranching and related slaughterhouse operations
- food and beverage packaging and processing
- warehousing
- transportation and logistics

Industrial development opportunities in the Electoral Area are related to its relative geographic position in the Province and existing agricultural industries in close proximity. As stated before, there are some backhaul opportunities for industries within the Regional District, primarily to Asian markets. As Electoral Area G has excellent access to the Port of Prince Rupert via both

rail and Highway 16, there could be an opportunity for light food processing of some niche products that are not time sensitive to be backhauled, including dried fruits, oil seeds, processed/packaged foods, and cereals. Warehousing uses would be a support industry for these processing activities.

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Greenhouse facilities	▪ Good Road Access ▪ 3-phase power ▪ Rail access - depending on products ▪ Water	Ag1 H2 RR1	1-2 ha.
Small-scale food processing facilities	▪ Good Road Access ▪ Rail Access – depending on products ▪ Water	M1	0.5-1 ha.
Warehousing	▪ Good Road Access	M1	0.5-1 ha.

7.5 Other Special Uses

There are opportunities that do not fit clearly within one single, or any traditional industrial sectors. These include:

- Business opportunities related to co-generation and/or bio-mass facilities and the energy sources created
- Opportunities for the development of an industrial park in order to attract industrial uses
- The development of the Prince Rupert Container Port and Prince George inland container facilities may provide opportunities for the development of transportation businesses to support future resource industries in and around the region

As noted, the Mountain Pine Beetle epidemic will result in an abundance of bio-mass (wood residue) that is no longer of saw log quality but can be utilized for power production. There is increasing interest in the projected wood waste volumes in the study area from independent power producers. This new interest, coupled with opportunities and assistance presented by the Province of British Columbia (detailed below) can result in new industry for the area and diversification for the forest sector.

Over the next 20 years, British Columbia is projecting an increase of 45% in energy requirements beyond what is currently produced in the province. The Provincial Government has made a commitment in the BC Energy Plan that British Columbia will be electrically self-sufficient by 2016. As a result of this commitment, in early March 2007, BC Hydro issued a Request For Expression Of Interest (RFEOI) for bioenergy power production utilizing wood waste. As well, BC Hydro announced the Standing Offer Program to purchase power from small

producers in any format (wind, water, wood waste etc) for power plants producing less than 10 MW of power.

The RFEOI from BC Hydro is assisting the Province with the projected energy shortfalls as well as aiding in the Mountain Pine Beetle epidemic by capturing value from affected timber that may otherwise not be useable. There are several opportunities in the bioenergy sector including combined heat/power plants for community heating systems, or power production specifically for selling to the grid. A combined heat/power plant could be utilized to heat such facilities as housing complexes (apartments, senior's homes, etc.) hospitals, recreation centres, and large scale green houses. There is potential for joint ventures between the local governments and independent power producers. There is also potential for the local governments to move forward on these initiatives on their own, owning the assets and collecting revenues from power sales to offset taxation in the area. Lastly, there is a presence of transmission level hydro infrastructure at various levels in the study area; this could potentially lower the cost of new infrastructure construction for Independent Power Producers (IPPs) or local/regional governments. It also suggests that the area could accommodate a larger-scale IPP, which requires transmission level infrastructure for connection to the Provincial grid.

Economic development staff should work with partners with the Prince Rupert Port and the Prince George airport, as well as international trade officials, to explore opportunities for assembly and light manufacturing. Often, products are shipped in a disassembled format to cut down on the space (and number of shipping containers) required to transport them. Closer to their final destination, it is often necessary to operate assembly plants and warehousing and logistics facilities in order to prepare those goods for delivery to market. Bulkley-Nechako may be well-positioned to attract these kinds of assembly operations.

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements.

The Houston Campus of Northwest Community College offers a range of technical and trades training to support both the above activities and other general industries. Several programs are offered at the foundation and apprenticeship levels, including training in: Automotive Repair, Carpentry, Electrical, Heavy Duty Mechanic/Commercial Transport Repair, Industrial maintenance (Millwright), and Welding. There may be an opportunity for additional educational infrastructure, perhaps a trades training facility or even small incubator, building on the strength of local businesses, including the mining and forestry industries.

There is also an interesting opportunity regarding the current and planned presence of mining within the Electoral Area and in close proximity. Over the longer term, there could be potential for opportunities in the mining and environmental remediation sector at the conclusion of mining activities, as well as during operations. These opportunities mostly include traditional engineering and planning activity, but on the operations side include soil remediation and earth moving equipment which could require industrial space.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Co-generation facility	▪ Good Road Access ▪ 3-phase power ▪ Water ▪ Telecommunications, High-speed internet	M2	Varies depending on activity
Light Manufacturing – assembly	▪ Good Road Access ▪ Rail Access – depending on products	M1	0.5-1 ha.
Heavy Equipment/Transport Maintenance (Truck transport, Green Energy industries)	▪ Road Access	M2	1-2 ha.
Trades Training Facility	▪ High-speed internet ▪ 3-Phase Power, depending on activities	M1	1-2 ha.
Automotive Repair	▪ None Specifically	M1	1 ha.
Mining/Environmental Remediation – offices/storage/operations	▪ Good Road Access ▪ 3-Phase Power, possibly ▪ Telecommunications, High-speed internet	M1	1-2 ha.
Trucking/Transportation – related storage	▪ Telecommunications ▪ Good Road Access	M1	1-4 ha.
Warehousing	▪ Good Road Access	M1	0.5-1 ha.

7.6 Key Industrial Users

It is not expected that all of the industry noted above will locate in the study area within the next 10 years. Based on the volatility of the primary and processing manufacturing industries, projects could be delayed for an undetermined amount of time, as is evident now with the low price of commodities and the mining sector. However, the following key industrial uses have been selected as the most likely to locate in the area within the next 5-10 years.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Co-generation facility	▪ Good Road Access ▪ 3-phase power ▪ Water ▪ Telecommunications, High-speed internet	M2	Varies depending on activity
Small-scale Secondary (Value-added) Manufacturing	▪ 3 Phase Power ▪ Road/Rail Access	M2	2-8 ha.
Light Manufacturing – assembly	▪ Good Road Access ▪ Rail Access – depending on products	M1	0.5-1 ha.
Trades Training Facility	▪ High-speed internet ▪ 3-Phase Power, depending on activities	M1	1-2 ha.
Heavy Equipment/Transport Maintenance (Truck transport, Green Energy industries) Welding, Fabricating	▪ Road Access	M2	1-2 ha.
Labs or Other Analysis/Testing Facilities	▪ Road Access ▪ High-speed internet and Telecommunications	M1	0.5-1 ha.
Greenhouse Facilities	▪ 3-Phase Power ▪ Good Road Access ▪ Rail Access – depending on product ▪ Water	Ag1 H2 RR1	1-2 ha.
Small-scale food processing/packaging facility	▪ Good Road Access ▪ Rail Access – depending on products ▪ Water	M1	0.5-1 ha.
Mining/Environmental Remediation – offices/storage/operations	▪ Good Road Access ▪ 3-Phase Power, possibly ▪ Telecommunications, High-speed internet	M1	1-2 ha.
Trucking/Transportation – related storage	▪ Telecommunications ▪ Good Road Access	M1	1-4 ha.
Warehousing	▪ Good Road Access	M1	0.5-1 ha.

7.7 Adequacy of Existing Industrial land Supply to Meet Future Demand

The purpose of this section is to estimate the amount of land that will be required by any of the key industries that are likely to establish within the Electoral Area, based on reviews of existing studies, reports, and consultations with local industries and experts. Presently, there is approximately 36 ha. of vacant useable industrial land in Electoral Area G. However, this land may not be adequate in amount or range of characteristics to adequately meet the needs of industrial development over the long-term.

It is difficult to forecast the total amount of land that will be required for industry over the next 5 to 10 years given the highly variable nature of the core business activities in the Regional District and the lack of historical data from which to base land absorption rates. It is not entirely

practical to expect that all or even a significant portion of the activities identified in this report will locate in the Region.

As Table 4.2 indicates there are already some existing industrial lands in Area G which are underutilised, these are primarily zones Light Industrial (M1), 16.829 ha (of which most is in one site of 12.193 ha.) and Heavy Industrial (M2), 14.115 ha (of which most is in one site of 11.743 ha). These parcels may be suitable for further development to meet the needs of key industrial uses as outlined in section 7.7. However, it is reasonable to anticipate that there could be some demand above the current supply of industrial lands over the medium to long term. The following chart summarizes the amount of land that could potentially be needed over the next 5 to 10 years.

Industry Type	Amount of Land	Parcel Size Requirements
Land for Light Industrial Use (warehousing, light manufacturing, transportation, etc)	5 ha.	0.5 ha. – 5 ha.
Land for small to average Heavy Industrial Use (abattoir and other Agriculture Industry, log home building, asphalt plant, etc)	5 ha.	4 ha. – 10 ha.
Land for large scale Heavy Industrial use (pellet plant, large wood products manufacturing, etc)	20 ha.	20 ha. – 40 ha.
Agricultural Industrial use (greenhouses, other large scale agricultural activities)	2 ha.	1 ha. – 3 ha.

8 Potential Industrial Land Inventory

8.1 Vacant Existing Industrial Land Inventory

The parcels discussed in Section 8.1 are zoned industrial by the Regional District for Industrial Use, but are not yet developed for Industrial Use, or have significant redevelopment potential. The following table provides an overview of the parcels discussed. It is noted that the information below is an estimate and should not be relied upon for any purpose.

Table 8.1

Vacant Industrial Land Inventory Overview

Parcel No.	Civic Address	Zoning	Site Size (ha)	Usable Vacant (ha)
1	Ann's Road, Topley Landing	M1	4.310	4.310
2	6262 Highway 16, Houston	M1	12.193	12.193
3	Sunset Lake Road and Severson Road, Topley	M2	14.349	11.743
4	Highway 16 and Highway 118, Topley	M1	3.100	0.326
5	Railway Avenue and South Topley Road, Topley	M2	14.633	2.372
6	5116, 5138 Mountain View Road, Houston	M3	183.990	4.683
Total			**232.575**	**35.627**

Parcels 3, 4 and 5 are all located in Topley and could be considered for development as one parcel. Parcel 2 also offers some substantial potential for development as it is located right on Highway 16 and has very few other uses around it. Parcel 1, though quite far off Highway 16 has some potential for development and Parcel 6 has some existing industrial land, though the larger site could be considered for larger agricultural industrial development.

8.2 Potential Future Industrial Land Inventory

The parcels discussed in Section 8.2 are not zoned by the Regional District for Industrial Use and are not yet developed for Industrial Use. The lands are those identified as having the potential for industrial use, however, these lands may be found, upon further review and consultation with the public, to be unsuitable for a particular, or any industrial use. The following table provides an overview of the parcels identified.

Parcel	Address	Property Area	Potential Useable Industrial Land	Zoning
G1	Houston Airport Road and BVC Road, Houston	159.8 ha.	159.8 ha.	AG1
G2	Houston Airport Road	151.2 ha.	151.2 ha.	AG1

Parcels G1 through G2 are shown in greater detail in Appendix B. The information regarding parcel descriptions, infrastructure, and special considerations is provided for convenience only and should not be relied upon for any purpose. All information should be independently verified.

8.3 Community Consultation

To verify the potential properties identified a consultation meeting was held with stakeholders to discuss the suitability of the potential properties identified and to consider other sites.

The following feedback was provided for each of the sites:

Parcel	Address	Feedback
G1	Houston Airport Road and BVC Road, Houston	This site has some potential for industrial uses and may increase usage of the airstrip (currently West Fraser and Canfor land there). However, the site would require road upgrades and widening and there is no three phase power there (it would be easiest to bring in from the Telkwa substation which is about 5 to 6 kms away)
G2	Houston Airport Road	This site has some potential for industrial development, the main constraints would be the grade from the airstrip to the rail lines which is significant. There are also a few residential properties on this parcel.

In addition to discussing the potential sites, the consultation also identified two other sites which the region may want to consider. These sites were:

Site	Feedback
Richfield Creek Loop Road	An old industrial site next to the Bell Copper reload site which would be suitable for redevelopment for other industrial uses.
Morice River Road, south of Highway 16	A site just past Houston Forest Products which has existing three phase power, rail access, and is on an industrial road with no load restrictions. However, this site may site within the municipal boundaries and would require further verification of its location.

Conclusions

There are a total of 48.1 hectares of Existing Industrial Land in the study area. Approximately 2.1 hectares, or 4.4%, of the Existing Industrial Land is developed. Approximately 35.6 hectares, or 77.5%, of the remaining 45.9 hectares of Vacant Industrial Land is considered usable based upon preliminary site evaluations. The majority of the usable portions of vacant industrial parcels are smaller than 5 ha in size, with only 2 parcels having usable portions estimated to be over 10 ha.

The study has identified a potential demand for up to:

- 5 ha. of land in parcels that are from 0.5 ha. – 5 ha. in size for Light Industrial Use (warehousing, light manufacturing, transportation, etc.)
- 5 ha. of land in parcels that are from 4 ha. – 10 ha. in size for Heavy Industrial Use (abattoir and other Agricultural Industry, log home building, asphalt plant, etc.)
- 20 ha. of land in parcels that are from 20 ha. – 40 ha. in size for large scale Heavy Industrial Use (pellet plant, large wood products manufacturing, etc)
- 2 ha. of land in parcels that are 1 ha. – 3 ha. for Agricultural Industrial Use (greenhouses, other large scale agricultural activities)

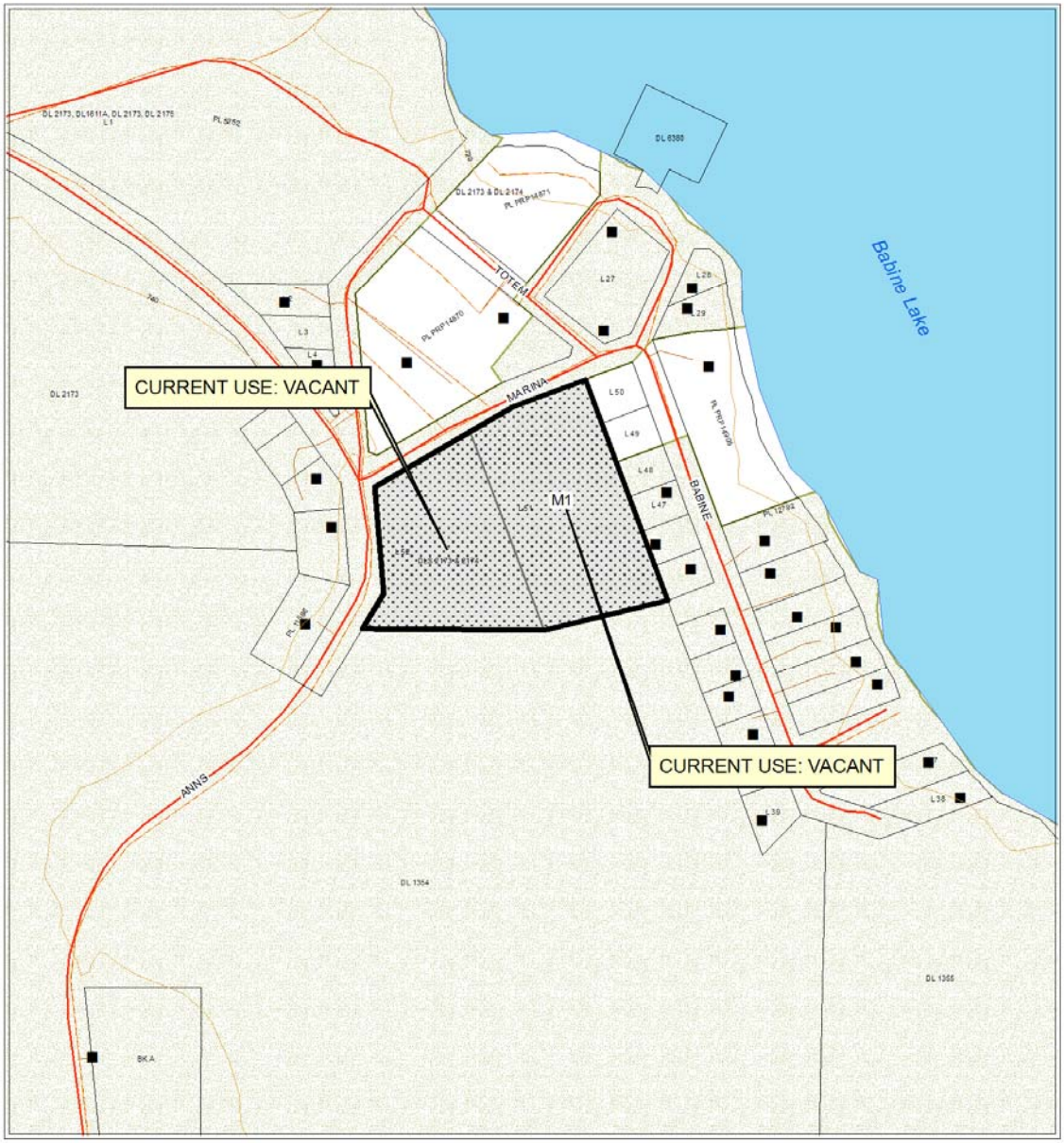
The study has identified, in Section 8 and Appendix B, properties that have some potential for industrial development. These properties total over 311 ha. of potential usable area, in two parcels. As part of the Official Community Plan review process for Electoral Area G, these lands will be further evaluated regarding their potential suitability for industrial designation. If designated for industrial use, the rezoning process will then be required to allow for further evaluation of each property's suitability for a specific industrial purpose. Both the OCP designation and rezoning process include a public review and input component.

Appendix A – Existing Rural Industrial Lands

Area G- Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 1



Legend

- Road
- Highway
- Driveways
- Forestry Roads
- Railways
- Hydro_Lines
- Municipalities
- Cadastre
- Provincial Parks
- Indian Reserves
- Agricultural Land Reserve
- Buildings

Industrial Zoning

- M1
- M2
- M3

Industrial Use

- DEVELOPED
- VACANT

N W E S

SCALE 1:5,000

ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	L 52 PL 5252 DLS 2173 & 2174 & L 51 PL 5252 DLS 2173 & 2174			
Civic Address:	Ann's Road, Topley Landing			
PID:	010267204 N/A		**BCAA Folio Number:**	26-755-11993000 26-755-11992000
Zoning:	M1		**ALR Status:**	Yes
Parcel Size:	4.310 ha		**Ownership:**	Crown
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	4.310 ha	0.0 ha	4.310 ha	4.310 ha
Current Uses:	Vacant, wooded lot			
Description:	Two small adjacent sites, both of which are currently undeveloped. The upper lot is relatively flat and has a cleared area, with wood to the south and east boundary. The lower lot is sloping down toward Babine Drive and is heavily wooded. Babine Lake is 150 meters from the northern most point of the property but there does not appear to be any drainage or water issues. There are few residential properties directly across from the western boundary of the site on Ann's Road and others off the eastern boundary on Babine Drive. The northern boundary to both parcels is Marine Way. Both parcels at this site are crown land.			

INFRASTRCUTURE			
Road Access:	Yes, Highway 118 is 1.4kms away	**3 Phase Power:**	No
Rail Access:	No	**Natural Gas:**	No
Other:	The site is approximately 11.2kms from Granisle and 39kms from Highway 16.		

ASSESSMENT

Two small parcels offering limited potential for industrial development, primarily due to their distance to Highway 16.

L 52 PL 5252 DLS 2173 & 2174 – upper vacant parcel towards southern boundary

L 52 PL 5252 DLS 2173 & 2174 – upper vacant parcel towards eastern boundary

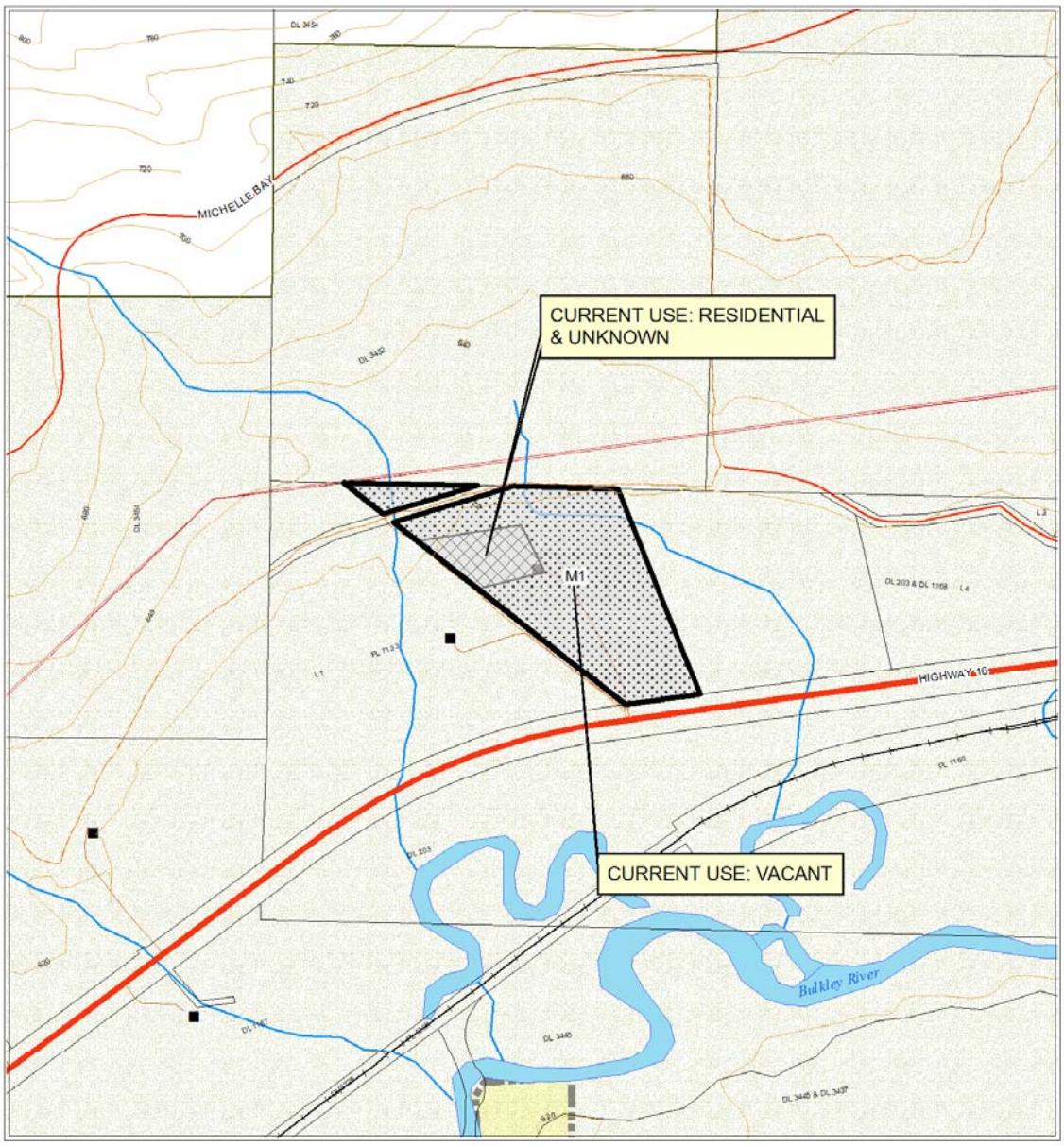
L 51 PL 5252 DLS 2173 & 2174 – vacant parcel from bottom of Marine Way looking west

L 51 PL 5252 DLS 2173 & 2174 – vacant parcel north eastern boundary (from Marine Way)

Area G- Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 2



Legend

- Road
- Highway
- Driveways
- Forestry Roads
- Railways
- Hydro_Lines
- Municipalities
- Cadastre
- Provincial Parks
- Indian Reserves
- Agricultural Land Reserve
- Buildings

Industrial Zoning

- M1
- M2
- M3

Industrial Use

- DEVELOPED
- VACANT

N W E S

SCALE 1:10,000

ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	L 2 DL 203 R5C PL 7133			
Civic Address:	6262 Highway 16			
PID:	009486577		**BCAA Folio Number:**	25-754-01012570
Zoning:	M1		**ALR Status:**	Yes
Site Size:	12.193 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	12.193 ha	0.0 ha	12.193 ha	12.193 ha
Current Uses:	Residential with a large workshop/shed to the back of the property. There is no obvious use.			
Description:	A medium sized site with a residential property set to the back part of the site. To the rear of the property is a large workshop or shed though it does not appear to be in use. There were also a number of vehicles stored at the rear of the property. There is a long drive leading to the house which has a substantial amount of flat open land on either side all of which is designated as M1 industrial. To the rear of the site the land rises sharply. There is another property (6258 Highway 16) adjacent to this site and which shares the same exit from the Highway, but has no industrial uses.			

INFRASTRCUTURE			
Road Access:	Yes on Highway 16	**3 Phase Power:**	Undetermined
Rail Access:	Not directly, it is across Highway 16	**Natural Gas:**	Undetermined
Other:	The property is approximately 7kms east of Houston and approximately 22kms west of Topley.		

ASSESSMENT

A medium sized flat open site which may have some use for industrial development, though the current use of the property seems to be predominantly residential.

Site from entrance off Highway 16

Vacant land to the eastern boundary

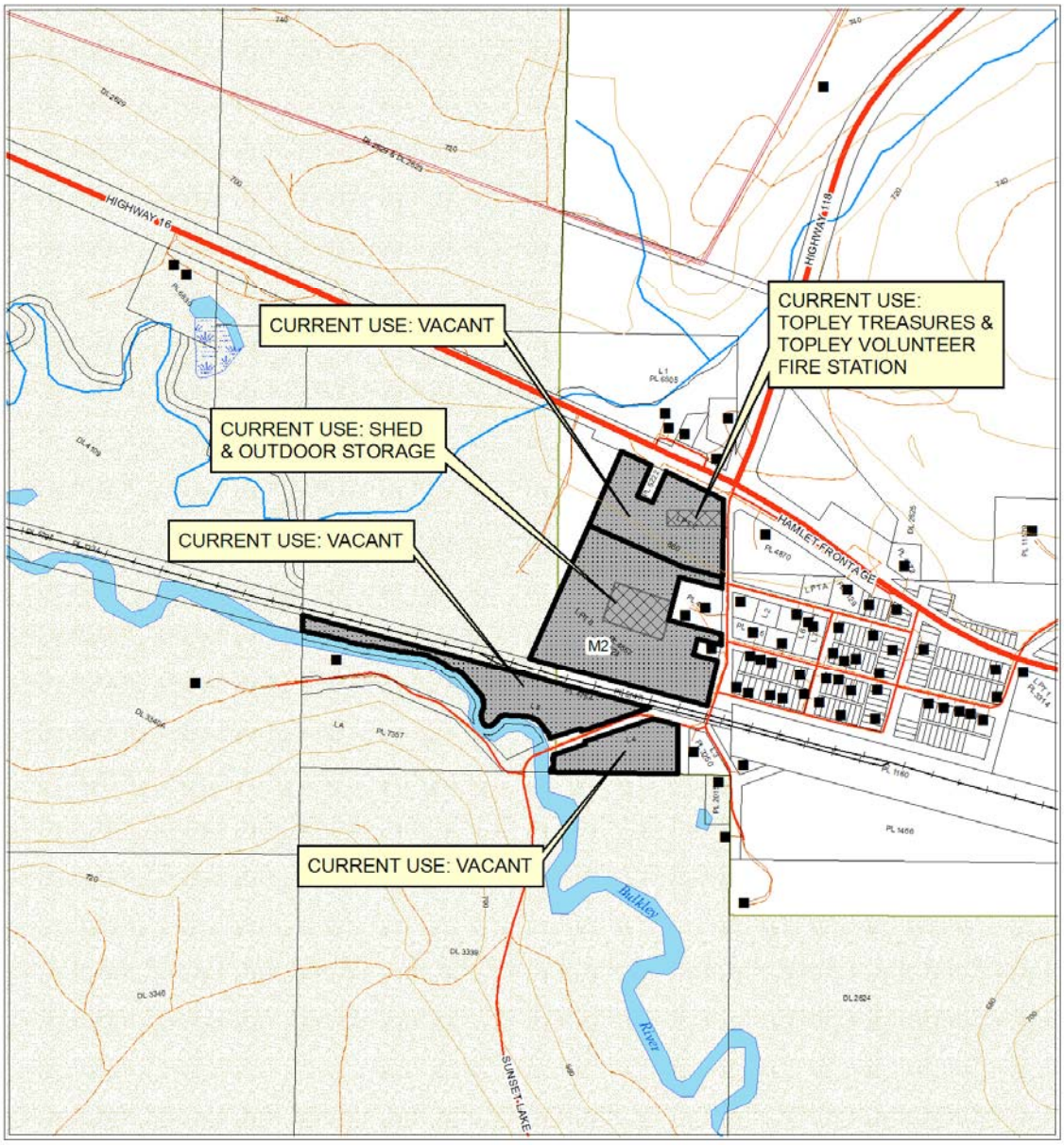
Residential property on site

Existing industrial shed, behind residential property

Area G- Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 3



Legend

- Road
- Highway
- Driveways
- Forestry Roads
- Railways
- Hydro_Lines
- Municipalities
- Cadastre
- Provincial Parks
- Indian Reserves
- Agricultural Land Reserve
- Buildings

Industrial Zoning

- M1
- M2
- M3

Industrial Use

- DEVELOPED
- VACANT

N W E S

SCALE 1:10,000

ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	L 7 DL 2623 R5C PL 4857 EXC PLS 5222 & 8353, L 6 DL 2623 R5C PL 4857 EXC PL 5356, L 5 DL 2623 R5C PL 4754, L 4 DL 2623 R5C PL 4754,			
Civic Address:	South of Highway 16 bounded by Sunset Lake Road and Severson Road, Topley			
PID:	004678524 011020733 005057116 005057078		**BCAA Folio Number:**	26-755-12683000 26-755-12682000 26-755-12681000 26-755-12680000
Zoning:	M2		**ALR Status:**	No No Yes No
Site Size:	3.143 ha 6.702 ha 2.954 ha 1.550 ha Total: 14.349 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	14.349 ha	0.393 ha	13.956 ha	11.743 ha
Current Uses:	Mixture of uses. Including: Topley Treasures (second hand store); Topley Volunteer Fire Department; scrap yard; and a large shed (use unknown), south of the rail line is vacant.			
Description:	A very large complex site. The northern part of the site fronts Highway 16 and is where most of the current uses are located, including Topley Treasures and the Volunteer Fire Fighters. The other side of the highway (not on this site) has a number of shops, including a general store, cafe and gas station. A wooded area divides this from a large middle section which currently is predominantly used for scrap storage, though there is a shed but it is not determined what activity takes place. This area of scrap storage is very large and relatively flat. The southern boundary of this area of the site abuts the rail line. The eastern boundary of both areas on this sites is Sunset Lake Road. There are a few pocket of residential along Sunset Lake Road which though not part of the site, project into it. To the south of the rail line are two small parcels of land which are undeveloped. Both are relatively flat though the Bulkley River runs to the south of both parcels. One is relatively long with a narrow strip following the rail line to the west of Sunset Lake Road; this land is part of the Agricultural Land Reserve. The other			

	parcel is on the eastern side of Sunset Lake Road and is a mixture of open land and wooded areas. This plot does not have any direct access to the rail line as Sunset Lake Road lies between it and the rail.

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	Undetermined
Rail Access:	Yes	**Natural Gas:**	Undetermined
Other:	Houston is 29.4kms away and Burns Lake is 50.5kms away.		

ASSESSMENT

A very large heavy industrial area that offers very good potential for industrial development. It has access to both the Highway and the rail line. There are some existing uses which would have to be moved but the area also offers existing residential and commercial areas to support any development.

Existing industrial parcels to northern part of site (Topley Treasures)

Existing industrial parcel to northern part of site (Topley Volunteer Fire Dept)

Existing industrial uses to middle of site – industrial shed and outdoor storage

Existing industrial uses to middle of site –outdoor storage of disused vehicles

Vacant industrial parcel running parallel to and south of rail line

Vacant industrial parcel south of rail line and north of Sunset Lake Road

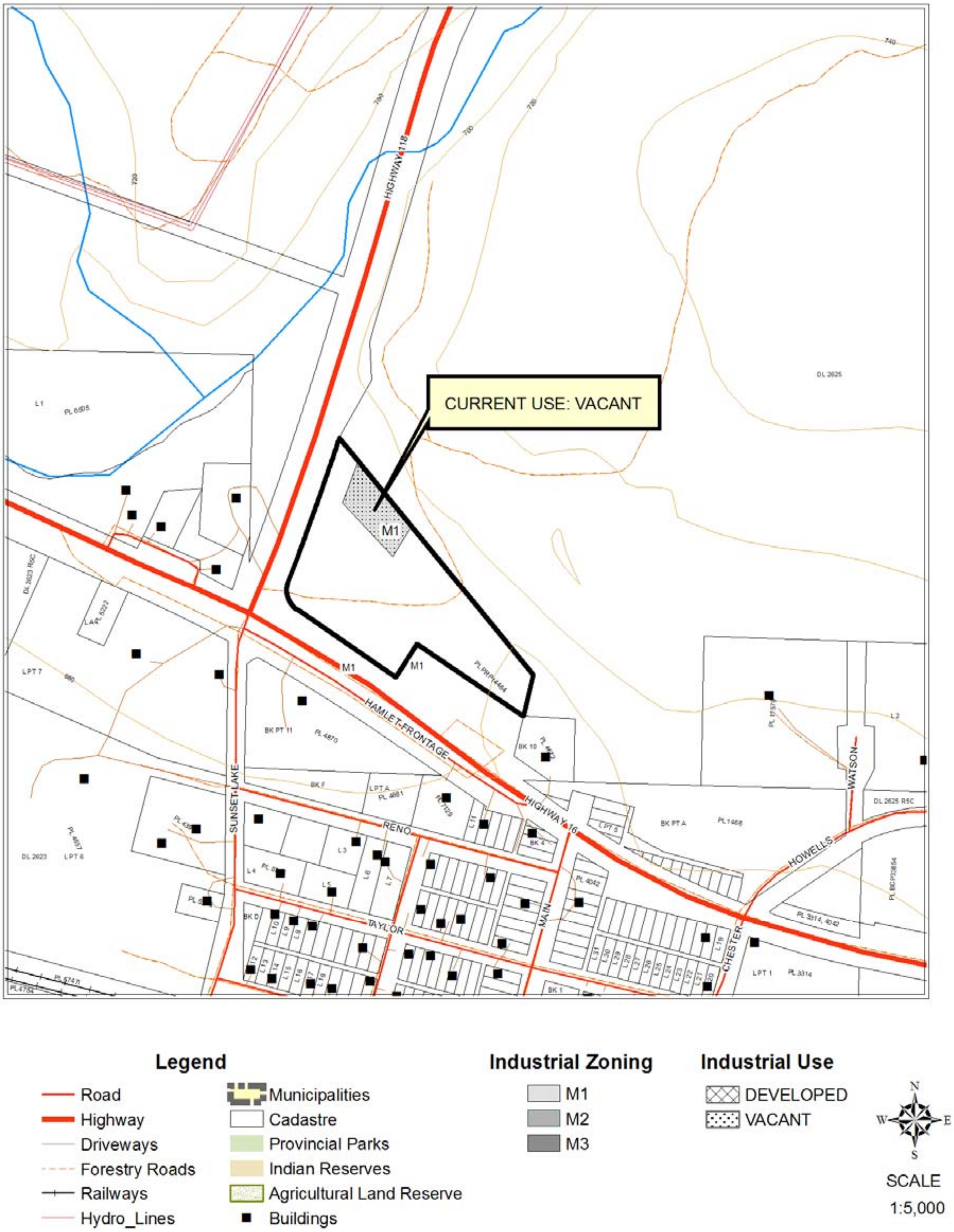
Vacant parcel to south of Sunset Lake Road

Vacant parcel to south of Sunset Lake Road

Area G- Industrial Land Use Study

Map 4

Appendix A: Exisiting Rural Industrial Lands



ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	L A DL 2625 R5C PL PRP14464			
Civic Address:	Corner of Highway 16 and Highway 118, Topley			
PID:	023168986		**BCAA Folio Number:**	26-755-12785010
Zoning:	M1		**ALR Status:**	No
Site Size:	3.100 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	0.326 ha	0.0 ha	0.326 ha	0.326 ha
Current Uses:	Vacant and undeveloped – for sale			
Description:	This is a small site at the junction of Highway 16 and Highway 118 to Granisle and Topley Landing. The site is relatively flat and has a zoning of M1 and C2, though the majority of the site is designated for commercial uses, with only a small portion at the back (north side) being for light industrial. The property is currently for sale, asking price is $99,900. There is currently a 200 amp electrical service to a small 8x10 wooden shed on the site.			

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	Undetermined
Rail Access:	Not directly, though the rail line is less than 0.5kms away	**Natural Gas:**	Undetermined
Other:	Houston is 29.4kms away and Burns Lake is 50.5kms away.		

ASSESSMENT

A small site which offers some limited potential for industrial development, though it would be best if it could be linked to the development of the larger sites in Topley.

Entrance to site off Highway 118

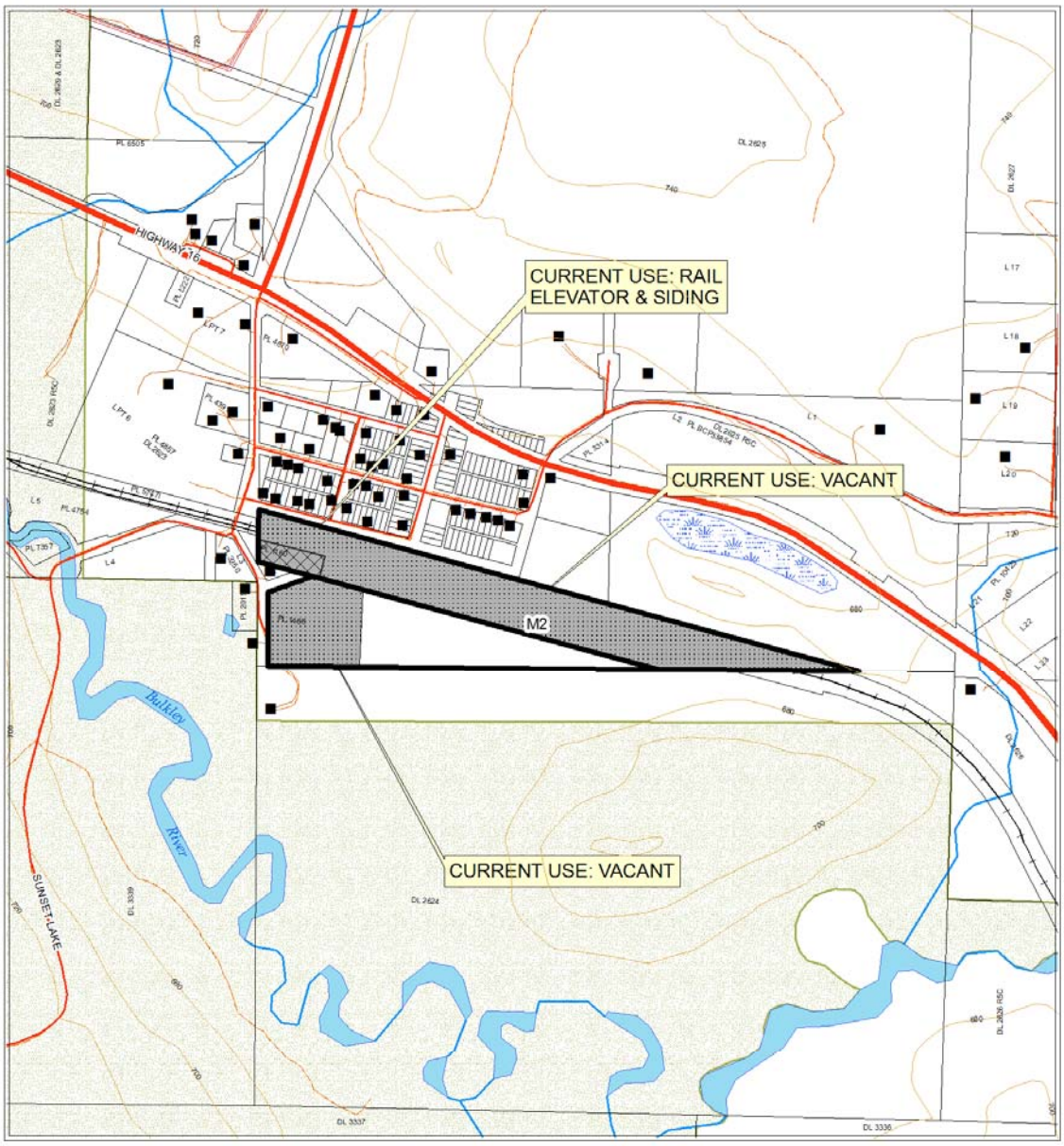
Site from western boundary (Highway 118) – industrial parcel would be beyond the trees to the left side of the photo

Temporary shed with power supply to site

Area G- Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 5



Legend

- Road
- Highway
- Driveways
- Forestry Roads
- Railways
- Hydro_Lines
- Municipalities
- Cadastre
- Provincial Parks
- Indian Reserves
- Agricultural Land Reserve
- Buildings

Industrial Zoning

- M1
- M2
- M3

Industrial Use

- DEVELOPED
- VACANT

N W E S

SCALE 1:10,000

ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	BK C DL 2625 R5C PL 1466 EXC PLS 2015 & 5454 & PT OF DL 2625 R5C ON PL 1160			
Civic Address:	South of Highway 16 bounded by Sunset Lake Road and Severson Road, Topley			
PID:	012699811 017055776		**BCAA Folio Number:**	26-755-12696000 N/A
Zoning:	M2		**ALR Status:**	No
Parcel Size:	5.929 ha 8.705 ha Total 14.634 ha		**Ownership:**	Private Crown – potentially owned by CN, but this could not be verified
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	11.077 ha	0.562 ha	10.515 ha	2.372 ha
Current Uses:	Rail storage elevator and siding serving it and vacant land			
Description:	This is a wedge shaped site to the east of Sunset Lake Road and South Topley Road. This sites has the rail line cutting directly through it. There is currently a rail storage elevator and a rail spur line off the main line to this elevator. Though this is a large area there is relatively little usable land as the rail line cuts through the middle of the area. This parcel of land is Crown owned. To the south of this is a relatively large open area which is accessible along South Topley Road. This area, linked to the rail line and the development of industrial land to the west of Sunset Lake Road, does offer some potential for development. Though to the west side of South Topley Road there are a number of residential properties which look out on to this site. This parcel is privately owned.			

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	Undetermined
Rail Access:	Yes	**Natural Gas:**	Undetermined
Other:	Houston is 29.4kms away and Burns Lake is 50.5kms away.		

ASSESSMENT

A medium sized site that offers some potential for development particularly on the southern boundary to the east of South Topley Road. Development here should be linked to the wider development of industrial zoned site to the west of Sunset Lake Road.

Rail line and rail storage elevator

Rail spur line extending from storage elevators

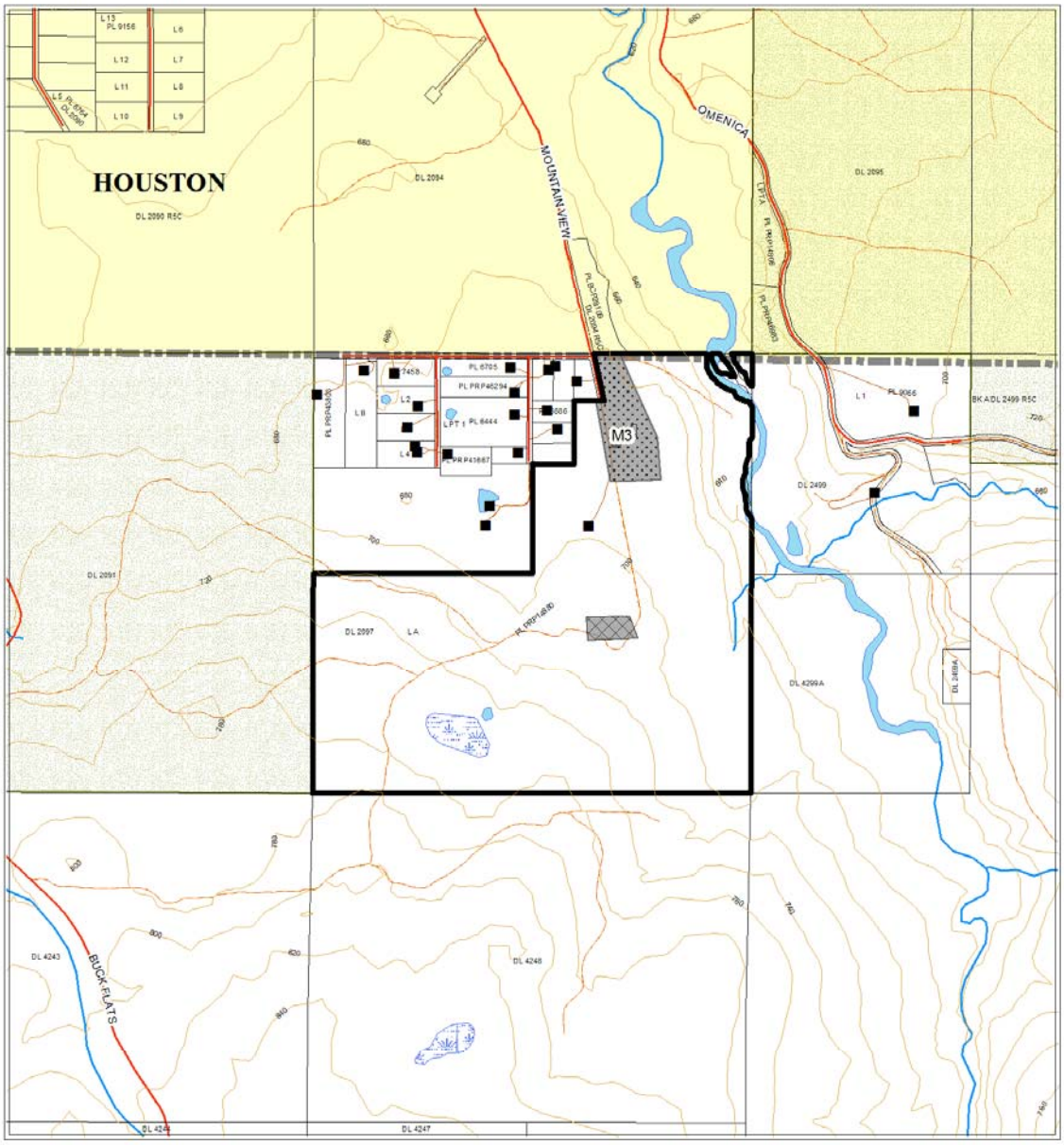
Vacant industrial parcel to south of rail line

Vacant industrial parcel to south of rail line

Area G- Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 6



Legend

- Road
- Highway
- Driveways
- Forestry Roads
- Railways
- Hydro_Lines
- Municipalities
- Cadastre
- Provincial Parks
- Indian Reserves
- Agricultural Land Reserve
- Buildings

Industrial Zoning

- M1
- M2
- M3

Industrial Use

- DEVELOPED
- VACANT

N W E S

SCALE 1:20,000

ELECTORAL AREA: G

PARCEL DESCRIPTION				
Legal Description:	L A DL 2097 R5C PL PRP14880			
Civic Address:	5116, 5138 Mountain View Drive, Houston			
PID:	023601663	**BCAA Folio Number:**	25-754-01716000	
Zoning:	M3	**ALR Status:**	No	
Parcel Size:	183.990 ha	**Ownership:**	Private	
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	5.869 ha	1.186 ha	4.683 ha	4.683 ha
Current Uses:	Currently there is an agricultural operation in the middle of the site, there is also a small agricultural storage building to the east side of Mountain View Drive			
Description:	A very large site, of which the majority of the site is classified as rural resource, with two areas designated as agricultural Industry. Mountain View Drive bisects the site from north to south and extends into the site for approximately 1 km. The first agricultural industrial area extends from the site entrance to the east of Mountain View Drive for approximately 450 meters. In this area is a small agricultural shed, but much of the industrial zoned area is vacant. The second agricultural area is in the middle of the site and houses a newer complex of three agricultural buildings at the end of Mountain View Drive. The industrial lands on this site are on flat land with some wooded areas on the first site to the east of Mountain View Drive, the second area has no obstructions. The first industrial area adjoins residential properties on Hazel Avenue to the west of the site and one property at the entrance to Mountain View Drive.			

INFRASTRCUTURE			
Road Access:	No	**3 Phase Power:**	Undetermined
Rail Access:	No	**Natural Gas:**	Undetermined
Other:	The site is 4kms from Highway 16 in Houston, through mainly residential areas.		

Assessment:

A very large site with some small existing agricultural industrial parcels. There is some potential for agricultural industrial development on these existing parcels, though the whole site could offer substantial opportunity for development of large scale agricultural industrial. The main road to the site is primarily through residential areas, which could pose problems.

Aerial view of site and industrial areas

Existing industrial agricultural use to northern industrial parcel

Vacant industrial parcel to east of Mountain View Drive from site entrance

Existing industrial agricultural parcel to middle of site

Existing industrial agricultural parcel to middle of site

Appendix B – Potential Industrial Land

PARCEL G1

PARCEL DESCRIPTION			
Legal Description:	REM DL 743		
Civic Address:	Houston Airport Road and BVC Road, Houston		
PID:	N/A	**BCAA Folio Number:**	N/A
Parcel Size:	159.9 ha.	**ALR Status:**	In ALR
Zoning:	AG1	**Ownership:**	Crown
Current Uses:	Vacant land surrounding the municipal airport in Houston.		
Description:	Much of the site is heavily wooded, with a lake to the northern boundary and a stream running from here towards the southern boundary. The airstrip cuts along the south western corner of the site, which is served by Airport Road and forms the southern boundary of the site. BVC Road runs parallel to the airstrip towards the middle of the site ending at the lake. Currently, the eastern half of the property (Folio Number 25-754-06143.001, 60.69 ha) is an agricultural lease.		

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	N/A
Rail Access:	No	**Natural Gas:**	N/A
Other:			

SPECIAL CONSIDERATIONS			
Rezoning Required:	Yes	**ALR Application Required:**	Yes
Other:	The part of the site closest to Houston Airport Road offers the greatest potential for development. There is no rail access at this site, but in combination with the second potential site in Houston (which has the rail line bisecting it). With the development of the land south of Houston Airport road for industrial uses there is the possibility of access to the railway.		

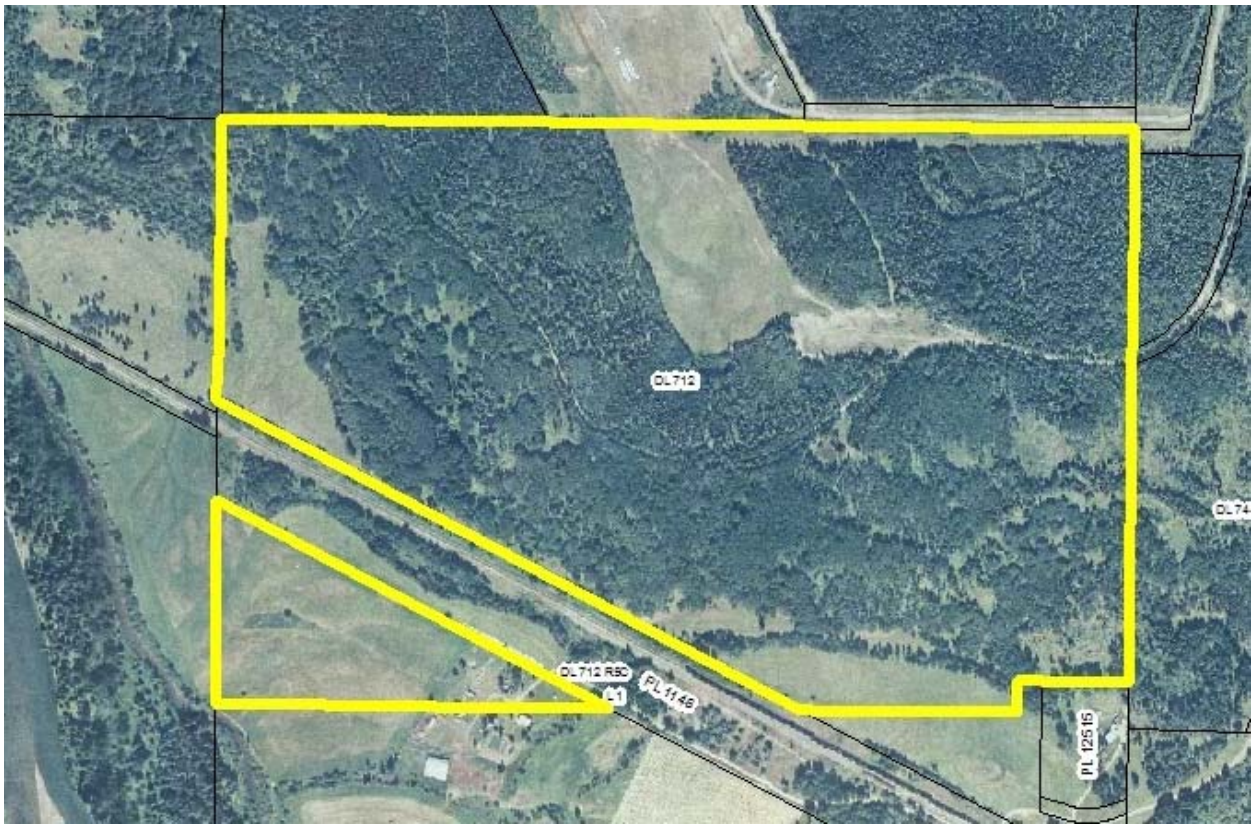
Middle of site from BVC Road

Southern boundary along Houston Airport Road

Site from BVC Road and Houston Airport Road

Houston Airport airstrip

PARCEL G2



PARCEL DESCRIPTION			
Legal Description:	DL 712 R5C EXC PLS 1160 & 12515		
Civic Address:	Houston Airport Road, Houston		
PID:	013-224-549	**BCAA Folio Number:**	2575401192000
Parcel Size:	151.2 ha.	**ALR Status:**	In ALR
Zoning:	AG1	**Ownership:**	Private
Current Uses:	Agricultural, with some parts vacant		
Description:	A large parcel to the south of Houston Airport Road, with the southern boundary being the Bulkley River. The rail line bisects the site, with the southern part being used for agricultural purposes and a farmstead near the rail line. The northern part of the site is primarily a wooded lot that is slightly sloping from Houston Airport Road to the rail line.		

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	N/D
Rail Access:	Yes	**Natural Gas:**	N/D
Other:			

SPECIAL CONSIDERATIONS			
Rezoning Required:	Yes	**ALR Application Required:**	Yes
Other:	The portion of land between Houston Airport Road and the rail line would be most suitable for industrial development. It is on the rail line and close to Houston and the municipal airstrip.		

Site from Houston Airport Road

Northern boundary Houston Airport Road

Site along Houston Airport Road