Final Report

Regional District of Bulkley-Nechako

Industrial Land Use Inventory Study: Electoral Area F

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Contents

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 F.

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 F
- Section 3 discusses the existing regulatory and planning infrastructure that exists regarding industrial land development in Electoral Area F

- Section 4 presents data on existing developed and vacant industrial lands in Electoral Area F
- Section 5 provides an overview of issues relating to future industrial land use needs in Electoral Area F
- Section 6 provides data and information relating to infrastructure and servicing of industrial lands within Electoral Area F
- Section 7 discusses potential future industrial land requirements in Electoral Area F
- 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 F
- Section 9 includes a summary of the study findings for Electoral Area F
- Appendices A and B contain detailed maps and site formation regarding the actual existing and potential parcels of industrial land in Electoral Area F

2 Methodology

2.1 Geographic Study Area

The study area includes all of Electoral Area F of the Regional District of Bulkley-Nechako. This area of the RDBN includes the District of Vanderhoof. Industrial Lands within the boundaries of this local municipality are not included in the present inventory, though those in close proximity to the municipality are.

Statistics Canada data from the 2006 Census shows that rural areas of Electoral Area F have a population of 3,137 persons. This is a decrease from the 2001 Census figure of 3,384 persons, meaning the population has declined by 247 people or 7.3%. Data from the 2006 Census also shows that Vanderhoof has a population of 4,064 persons (a decline of 326 people or 7.4% over 2001). The area as a whole thus has a population of 7,201 persons, which represents a decrease of 573 people or 7.4% 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 Vanderhoof Rural Official Community Plan

Section 2.0 of the Vanderhoof Rural Official Community Plan, Bylaw No. 840, 1995 states the broad objectives of land use planning in the rural areas of Electoral Area F. Several of those objectives could have direct impacts on industrial development within the district.

2.6 It is the objective of the Regional Board to protect and preserve productive farmland and soil having good agricultural capability 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 aggregate resource deposits and to protect these from development that will 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.

2.25 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 contains specific policies regarding land designated Industrial (I) in the Plan.

3.4.1 to encourage significant new industrial uses to establish within areas designated for industrial purposes in the Plan area or within a surrounding municipality

3.4.2 to consider a limited amount of 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 be seriously effected;
e) generated traffic would not cause serious problems; and,
f) in respect of land within the Agricultural land Reserve, the use has the support of the Agricultural Land Commission;

3.4.3 to allow appropriately sized parcels to be created for industrial uses.

Section 3.14 contains specific objectives regarding utility development. In the Vanderhoof rural area, this has direct effects on industrial development planned for areas adjacent to the municipality, or development that needs servicing. With regards to Utility Services, it is the policy of the Regional Board to:

3.14.1 to recognize the advantages of orderly growth and the pre-planning of subdivisions that can lead to an efficient and economical extension of utilities;

3.14.4 to conduct feasibility studies where there appears to be a need for sewer, water, fire protection, radio and television among other services to consider the establishment of benefitting areas to supply those services.

Section 3.17 lists the specific objectives regarding temporary commercial and industrial use permits within the Plan area.

3.17.1 to consider the issuance of temporary commercial and industrial use permits throughout the Plan area, where, notwithstanding a zoning bylaw:

a) the use is clearly temporary in nature;
b) there is a 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.

3.1.2 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.*
j)

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 Vanderhoof Official Community Plan

Section 3.5 in the District of Vanderhoof Official Community Plan, Bylaw No. 993, 2005 notes specific economic objectives. Most notably, Objective 3.5.1 speaks to the diversification of the economy:

3.5.2 To develop a strategy for the diversification of the local economy, recognizing a long standing dependence on the forestry industry and the effects of the pine beetle.

Section 4.4 of the District OCP states the specific policies for land designated Industrial in the Plan. Recognizing the dependence on the forestry industry, the policies contained in the plan support the diversification of the economy to mitigate any future loss of jobs in the forest sector. Council's policies regarding existing and future industrial land use are as follows:

4.4.1 ***Land for Industrial Development****: To provide an adequate supply of land to accommodate future industrial development, Council has designated areas for industrial use as indicated on Map 1: Land Use Plan. Two main areas have been identified for future industrial development:*

a) lands to the south of highway 16, west of the town centre; and,
b) portions of the Southeast quarter, Section 17, Township 11 North of the Loop Road.

4.4.2 ***Locational Guidelines for Industrial Development****: While reviewing industrial development proposals, Council will evaluate the proposed project based on the following criteria:*

a) proposed development sites should be:
- *suitable for industrial use and not subject to potential hazardous conditions;*
- *in close proximity to local highways and/or the CNR line; and*
- *physically separated from established residential, commercial, and institutional areas.*

b) that the proposed industrial activity and the vehicle traffic it generates will not have a detrimental impact on surrounding uses; and
c) that the intended use will not create undesirable environmental impacts.

4.4.3 ***Industrial Districts****: To accommodate a range of industrial operations, the Districts Zoning Bylaw distinguishes between light and heavy industry. Areas zoned for heavy industry are intended for larger scale industrial uses requiring sizeable sites, direct rail and/or highway access and that may entail extensive outdoor storage or create negative visual or environmental impacts. It is Council's intention to designate areas for this form of industry and prevent the encroachment of non-compatible land uses. The light industry zone is intended for smaller scale industrial operations that may locate along the Highway 16 corridor outside of the core without creating negative visual impacts.*

4.4.4 ***Municipal Servicing Flexibility of Industrial Sites****: To allow flexibility for locating and servicing future industrial activities and ensure reasonable development costs, Council's policy is to permit different levels of site servicing. Council may consider urban standard municipal servicing requirements for light industrial uses located adjacent to arterial roadways. Rural or partial servicing standards may be allowed for heavy industrial operations in the fringe area or located at a distance from existing water and sewer trunk mains.*

4.4.5 ***Airport-related Industrial Development****: When warranted by economic development opportunities and market demand, Council will support increased airport industrial and service development and work in conjunction with Transport*

Canada and the Agricultural Land Commission (ALC) to facilitate the development of aviation-related industry.

3.2.2 District of Vanderhoof Zoning Bylaw

The District of Vanderhoof Zoning Bylaw No. 994, 2006 has four industrial zoning classifications. The following table summarizes the permitted uses in each zoning classification:

Permitted Uses:	I-1 Light Industry	I-2 Heavy Industry	I-3 Special Industry	I-4 Utilities
Auction house, including livestock	X			
Automobile or trailer sales or rental lot, recreation vehicle, boat and heavy equipment sales and rental lot	X			
Automobile repair garage and parts depot, recreation vehicle, boat, trailer and heavy equipment, manufacturing yard, repair garages, and parts depot	X			
Bakery	X			
Bottling and distribution plant	X			
Building supply and lumber yard	X			
Car wash	X			
Cartage, delivery and express facilities including truck terminals and packing and crating establishments	X			
Cleaning and dyeing establishments	X			
Laundromat and dry cleaner	X		X	
Commercial nurseries and greenhouses, including a related retail outlet	X		X	
Construction camp	X	X		
Electronic equipment manufacturing and assembly	X		X	
Farm implement dealership	X		X	
Feed and seed storage	X	X	X	
Fertilizer bulk storage and sales	X			
Furniture, sash, door and other woodworking manufacturing and storage establishments	X			
Garage and parking lot for motor vehicle storage	X			
Gasoline service station and commercial vehicle keylock fuel installation	X			
Keylock fuel installation	X[1]	X		
Machine shop and parts manufacturer, machinery and assembly not involving forging, casting, punch presses, drop forges	X			
Manufacturing, assembly, processing, finishing or repair of apparatus, equipment, machinery or non-metallic products	X			
Manufacturing, preserving, canning, freezing, grading or packaging of foods and beverages including dairy products	X	X		

Offices in conjunction with storage buildings for trade contractors	X		X	
Plumbing and sheet metal workshop	X			
Printing, publishing, and allied trades	X		X	
Radio and television stations	X	X		
Rental and repair of small equipment and tools	X		X	
Restaurant	X			
Septic tank service	X			
Storage yard	X		X	
Automobile wrecking and junk yards	X	X		
Tree seedling cold storage facilities	X		X	
Veterinary hospital and animal beauty parlour	X			
Warehousing	X[2]		X	
Waste disposal site	X			
Equipment storage yard				X
Public Utilities facilities				X
Fuel storage and wholesale distribution		X		
Slaughterhouse		X		
Storage of explosives		X		
Manufacturing, assembly, processing or finishing of machinery, metallic, and non-metallic and wood and paper products		X		
Manufacturing, processing and storage of asphalt, petroleum and related products		X		
Work yards				X
Accessory buildings and uses	X	X	X	X
Caretaker dwelling	X	X		

[1] commercial vehicle keylock fuel installation

[2] and wholesale establishment including cold storage and fuel storage

* This chart was created from sections 6.17 to 6.20, District of Vanderhoof Zoning Bylaw No. 994, 2006

In addition, the RR-2 Rural-Large Holdings zone allows some industrial activity associated with primary agricultural and resource extraction activities on site. Notable permitted uses include:

6.22 (a)

8. forestry, logging and portable wood processing plant; and,

13. primary grinding, cutting and crushing or raw materials extracted on-site.

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 than 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 41.938 hectares of Industrial Land in the study area. Approximately 6.704 hectares, or 16%, of the Industrial Land is developed; primarily as small sites. Approximately 35.234 hectares, or 84%, of the Industrial Land is vacant or underutilised; based upon a preliminary site evaluation all of this is considered usable. The majority of this is concentrated on two sites (Maps 2 and 3), which accounts for 31.889 hectares of usable vacant land; though both of these are undeveloped Crown land along Highway 27 approximately 30 to 34kms from Fort St James.

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	M2	1.465	1.465	1.465	0.000	0.000
2	M1	12.626	12.626	0.000	12.626	12.626
3	M2	19.263	19.263	0.000	19.263	19.263
4	M2	64.750	3.523	3.523	0.000	0.000
5	M1	0.376	0.376	0.000	0.376	0.376
6	M3	60.067	1.716	1.716	0.000	0.000
7	M3	16.240	2.123	0.000	2.123	2.123
8	M3	59.197	0.846	0.000	0.846	0.846
Total		**233.985**	**41.938**	**6.704**	**35.234**	**35.234**

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

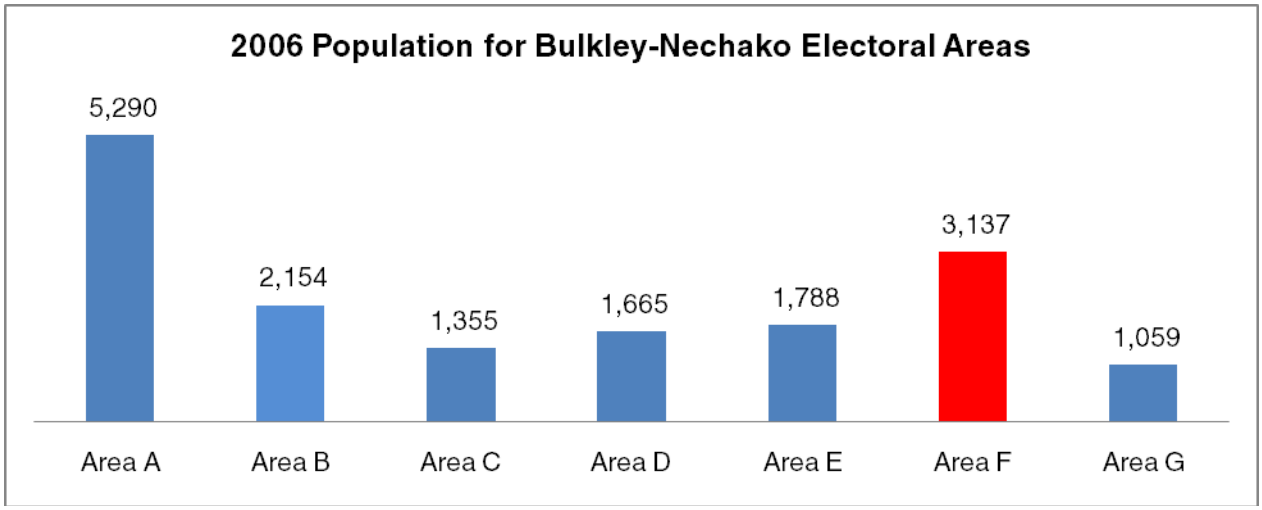
5.1 Economic Base Analysis

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 within the community, as well as emerging opportunities.

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. Overall, area F accounts for 8.2% of the total population in the Bulkley-Nechako census district.

Electoral Area F, like the majority of the Electoral Areas experienced a decline in population second to only Area C, which declined at the greatest rate between 2001 and 2006. 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 F was more significant than both the decline of the RDBN as a whole, and the average decline of the seven Electoral Areas.

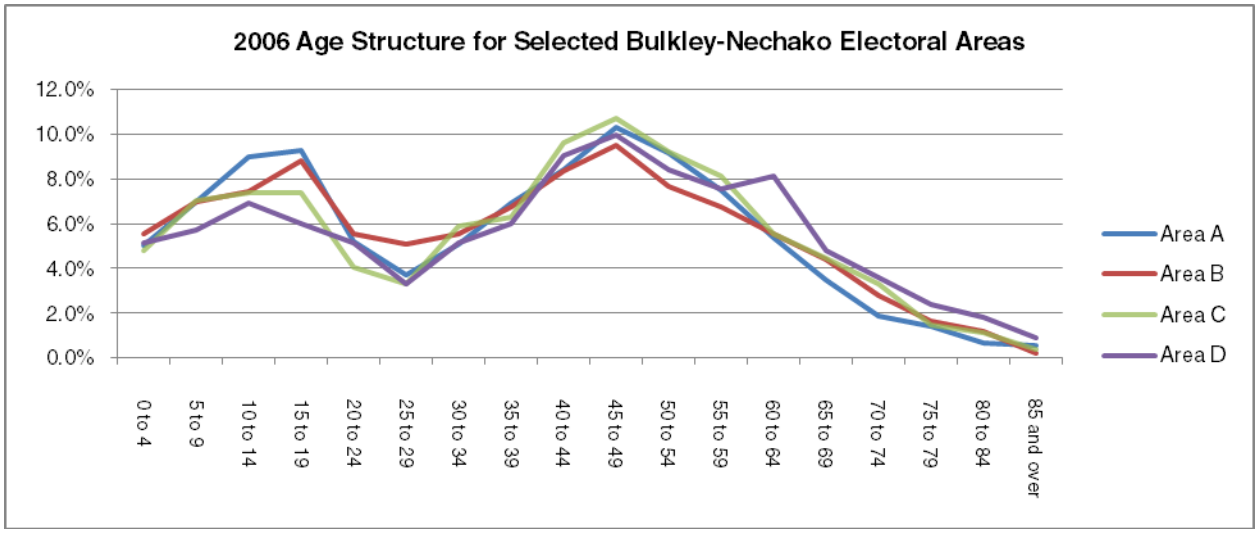
Figure 2: Population change for Electoral Areas of Bulkley-Nechako

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

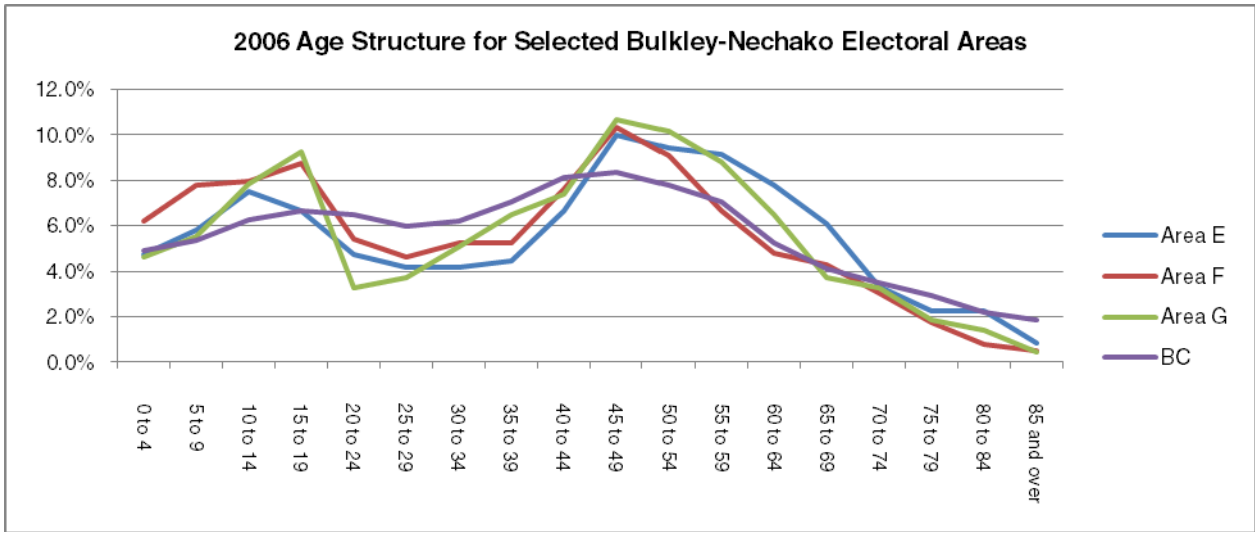
The age structure of a population can reveal certain dynamics over a period of time including advantages or disadvantages a particular location has. The composition of workforce groups such as the feeder cohort (i.e. those within range of joining the labour force), working cohort (i.e. those are active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

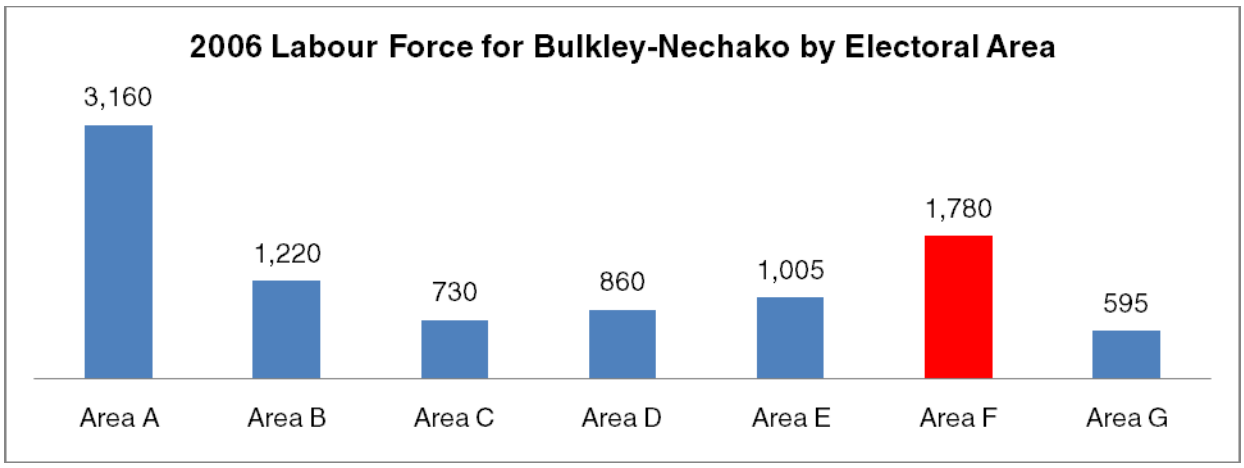
Most of the Electoral Areas have a similar pattern in terms of age distribution, much less constant across the age groups than the province as a whole. Generally speaking, the Electoral Areas have moderately sized youth populations, with a large gap in the 20-39 year old age cohorts, and larger middle-aged populations. However, there are some marked differences that may likely create advantages for certain districts.

Electoral Area F had the highest proportion of its population in the younger age segments, exhibiting the highest proportional population of those aged 19 or younger for all Electoral Areas. Area F also exhibited one of the youngest median ages of all other Electoral Areas, at 39.6 years. This was slightly older than the median age in the RDBN (37.4 years) but younger than the Province (40.8 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 F contains the second largest labour force of all Electoral Areas, accounting for approximately 9% of the total labour force in the Regional District.

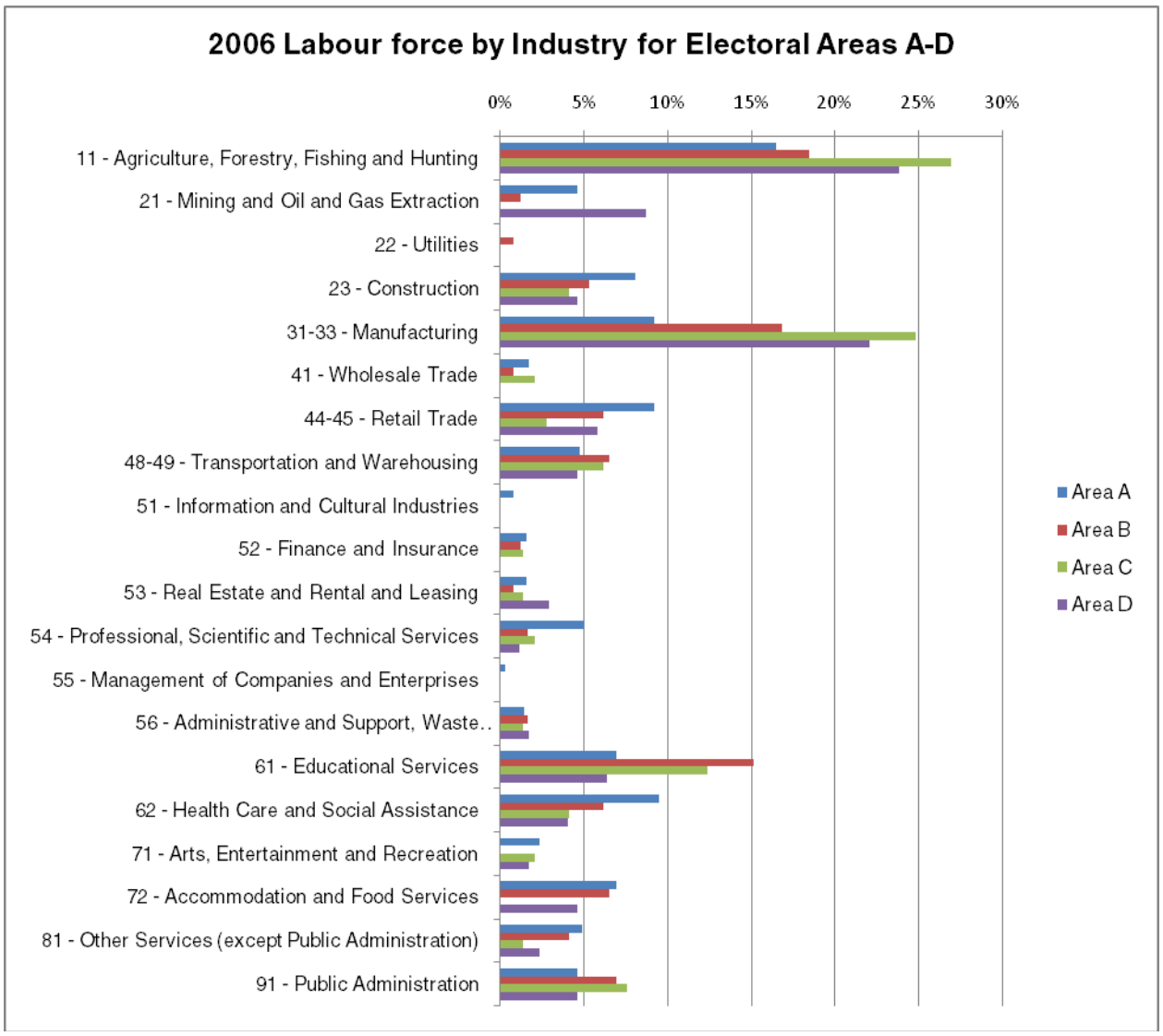
Also important is the structure of a community's labour force by industry, which can indicate whether a community's economy is based on a single industry or diversified in its sectors. One obvious advantage of a diversified economy in comparison to a single industry based economy is the ability to create 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

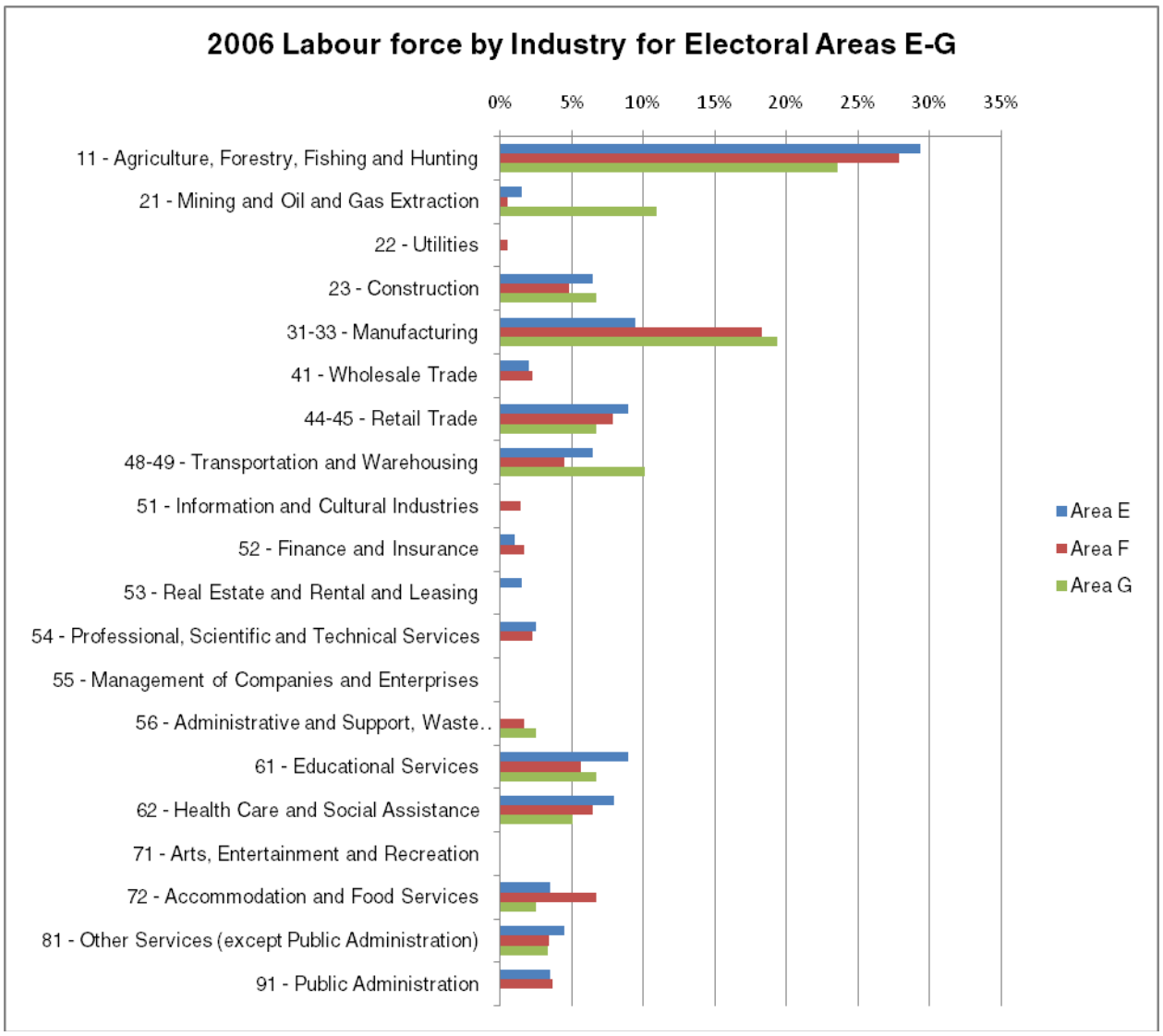
Source: Statistics Canada, 2006

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 above figures 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 F. In the case of Agriculture, Forestry, Fishing and Hunting, the Electoral Area has the second highest proportion of labour force concentration out of all Electoral Areas, second only to Electoral Area E.

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

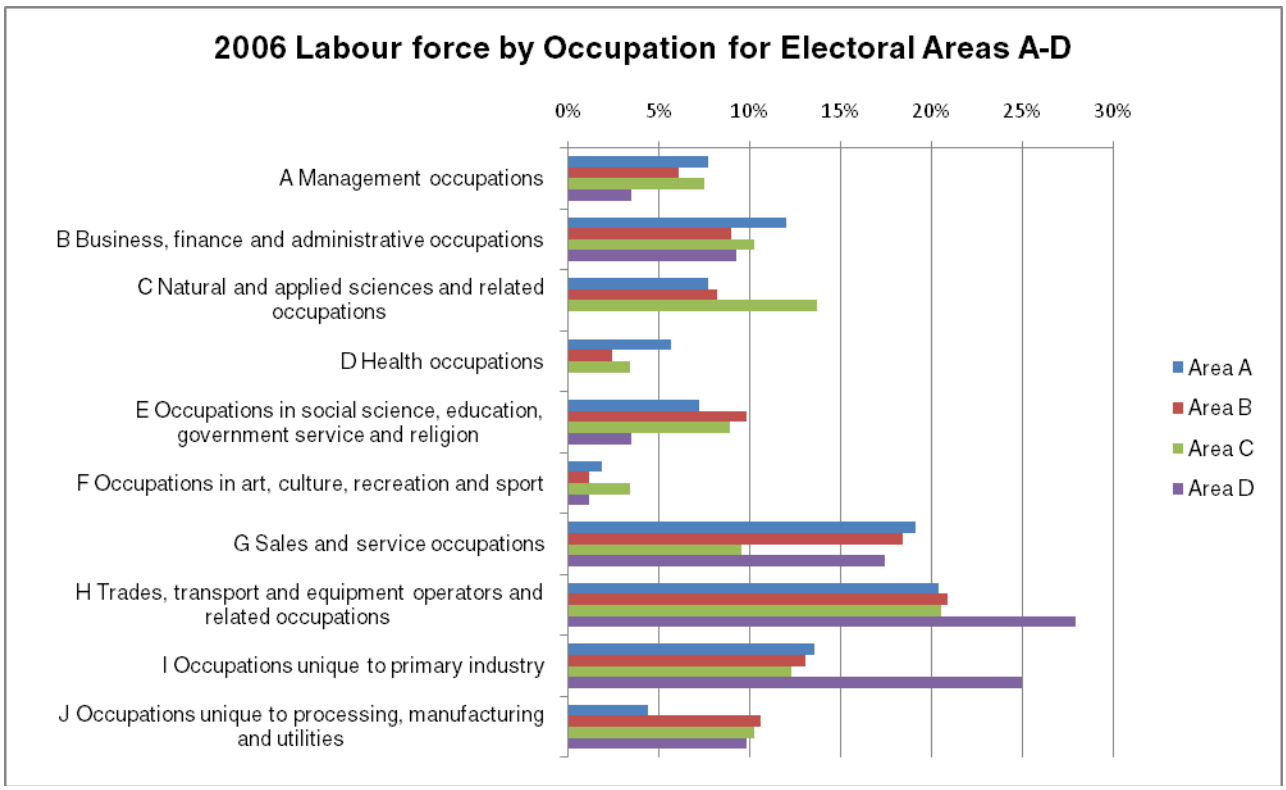
where wages are high also provide revenue opportunities for a community and provide the means to formulate strategies that anchor professionals to a community.

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

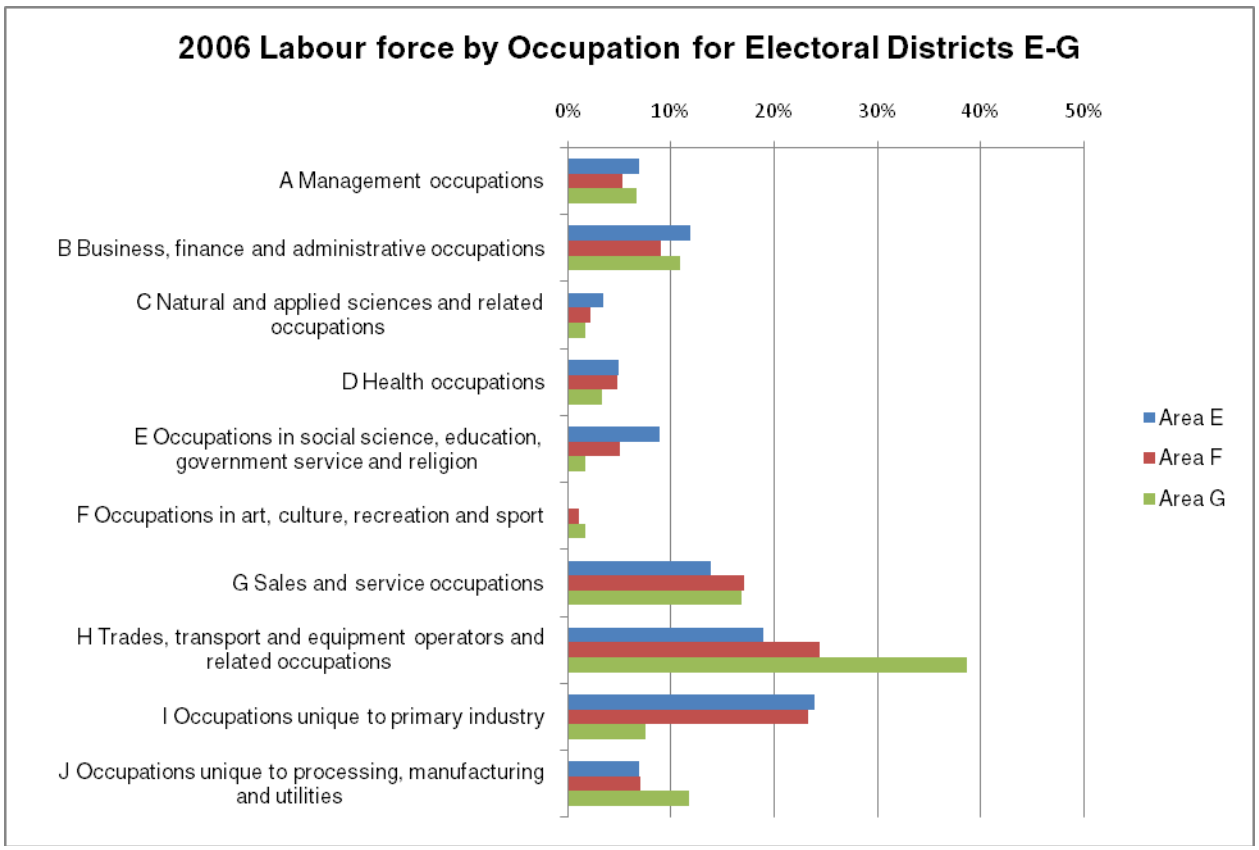
Source: Statistics Canada, 2006

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

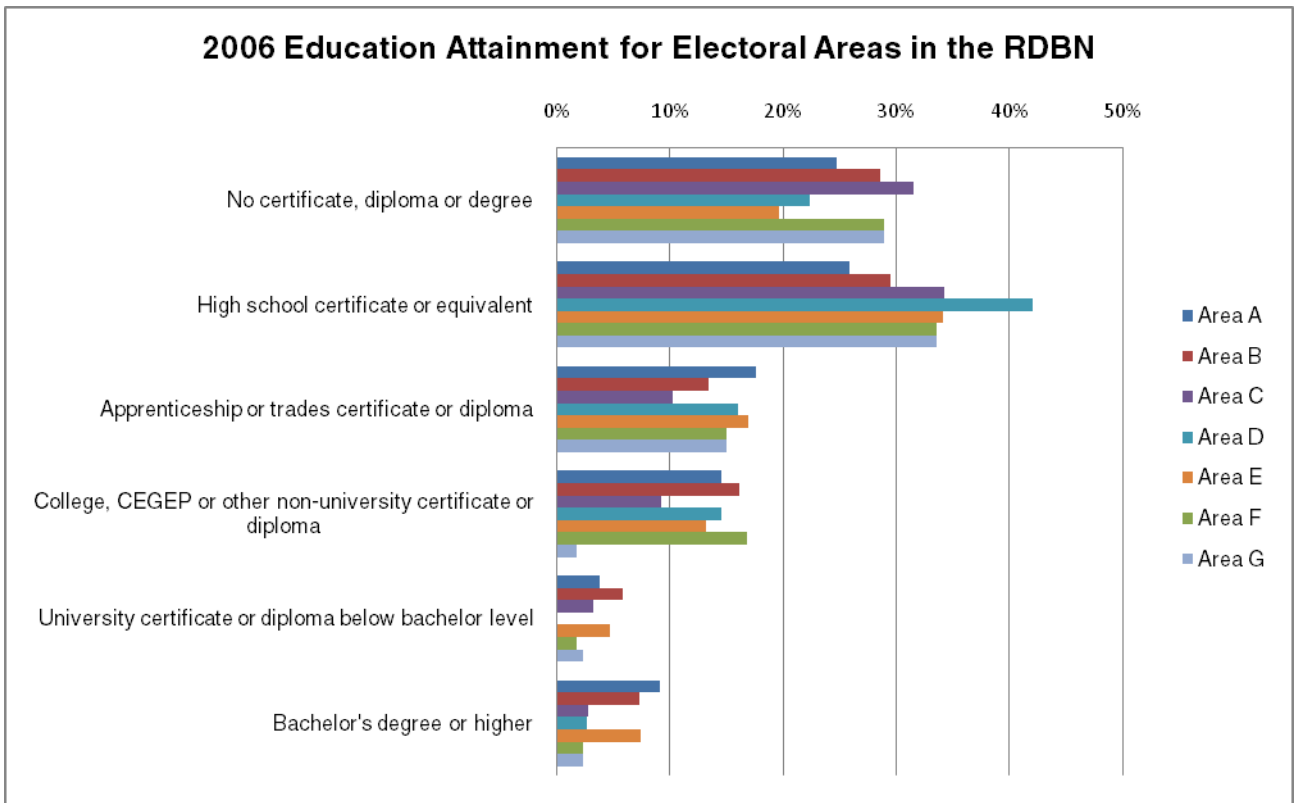
Occupations among the Electoral Areas are concentrated in trades, transport and equipment operators and related occupations; occupations unique to the primary industry; and sales and service occupations. The highest concentration of occupations in Electoral Area F is in trades, transport and equipment operation, followed closely by occupations unique to primary industry. Both of these speak to the comparative agricultural strengths of the Electoral Area, as well as the advantages with regards to transportation logistics.

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.

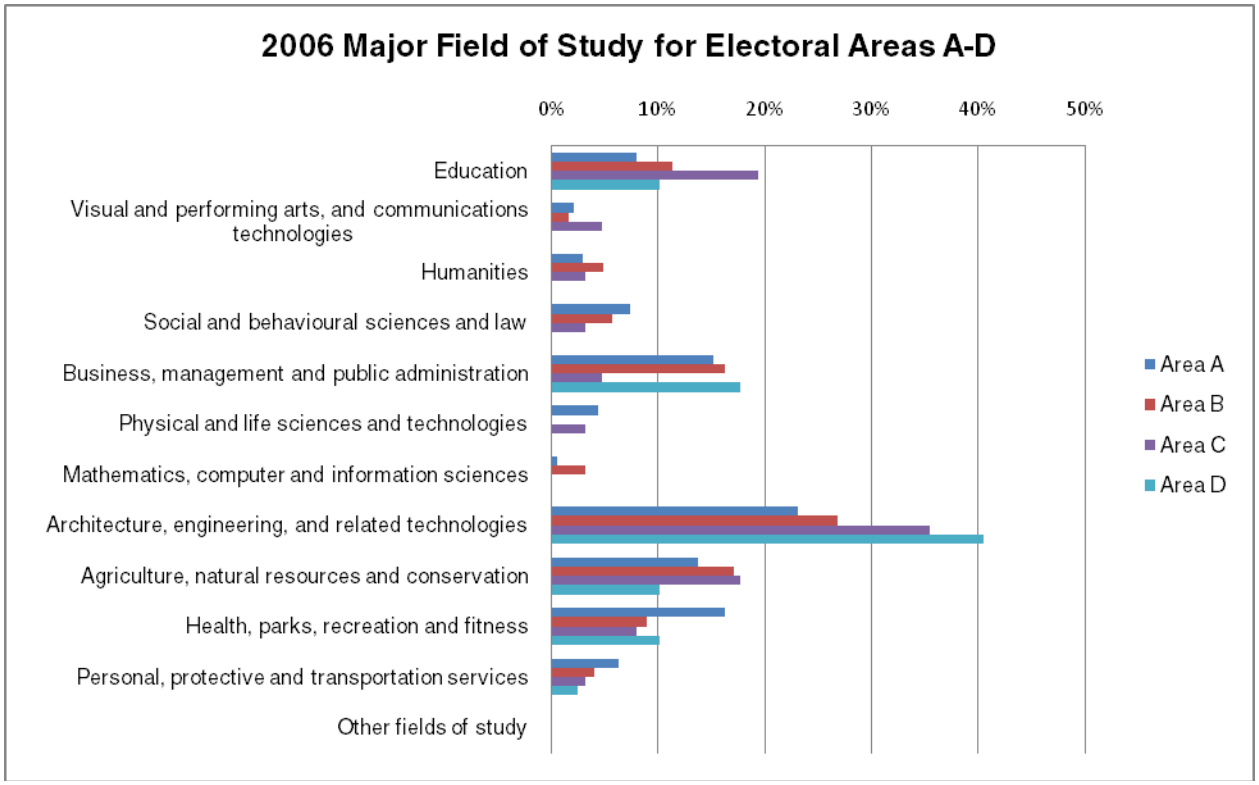
The education attainment for the Electoral Areas shows they are mostly concentrated in the following categories: no certificate, diploma or degree and high school certificate or equivalent. Electoral Area F contains the highest proportion of population with a college, CEGEP or other non-university certificate or diploma.

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



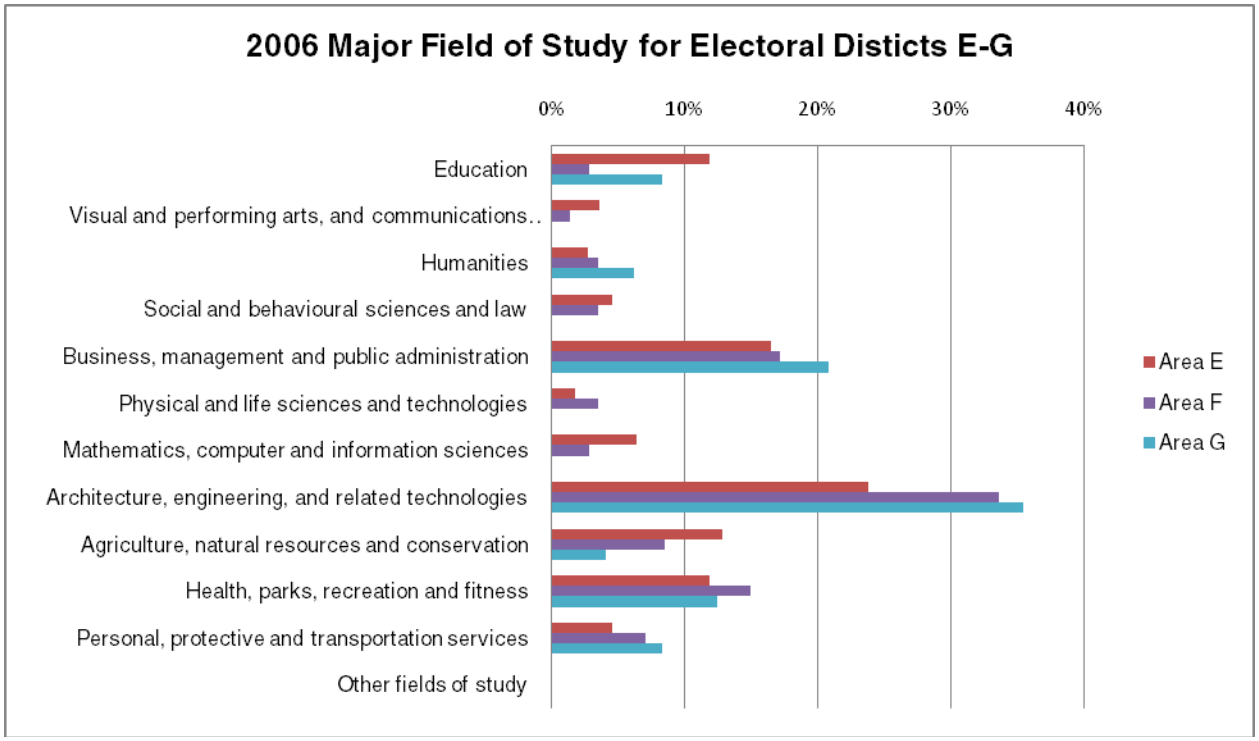
Source: Statistics Canada, 2006

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 F is architecture, engineering, or related technologies.

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. The average household income for Electoral Area F was slightly higher than the average household income for the RDBN in 2006 ($63,397). However, the average household income remained lower than that of British Columbia, which was $67,675 in 2006.

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 F these include the following organizations:

The Community Futures Development Corporation (CFDC) is a federally funded economic development organization providing services to the District of Vanderhoof and Electoral Area F. Although CFDC's office is located in the neighbouring community of Prince George, they are inclusive of the 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 Vanderhoof also employs a full-time Economic Development Officer. At present, the District is operating without a formal economic development strategy, but it has recently received funding approval to proceed with the development of a strategy for the community, and expects to issue a Request for Proposals in the near future.

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. 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, though little of this work appears to be taking place in Electoral Area F.

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 usable 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).

According to the 2006 census, there were 1485 employees within this industry and this has remained 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 residents in the Regional District 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 (less than 35 kV) or transmission level, depending on lead requirements. 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 for all electricity providers.

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

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 BC Hydro and BCTC support the development these projects within the province, especially in the clean energy sector. Generally, industries wishing interconnections to the transmission network must apply through the BC Transmission Corporation.

Existing infrastructure in the area roughly follows the Highway 16 and Highway 27 Corridors. Along the Highway 16 corridor through Vanderhoof, there are existing 500 kV and 69 kV overhead lines passing through the Electoral Area from the Williston Substation. Overhead 69 kV lines pass through the District along Highway 16, and run north along Highway 27 to Fort St. James. There are 69 kV substations in Vanderhoof, as well as substations servicing Nechako Lumber and Canfor's Plateau Mill. A 230 kV line runs east from the Glenannan Substation to the Tachick Substation within the Electoral Area. 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. Due to increased demand from mining activity in the Glenannan-Smithers-Hazelton area, several substations are scheduled for improvements to increase capacity. In the context of Electoral Area F, this means transformer replacements for the Vanderhoof substation to increase capacity.

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, power consumption, and distance from connection points. Since every connection is unique, BC Hydro reviews all new connections separately to determine the best method of connection, as well as the extent of any system reinforcements needed.

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 customer to the point of interconnection with the transmission grid, 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 or any other allowances from BC Hydro.

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 (as noted above, also the transmission connections to the system), 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.

6.2 Rail Access

The CN mainline follows the Highway 16 corridor through the study area, from Prince George to Prince Rupert. Siding access points are located in several locations across the Electoral Area, but most notably at Nechako Lumber/L&M Lumber and the Canfor Plateau Mills. Track improvements along this line are being conducted with the intention of facilitating 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

Public telecommunications coverage in Electoral Area F 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 Sinkut Wireless. 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 mainline infrastructure extends west from the compressor station at Summit Lake, and is delivered to the District of Vanderhoof via a lateral extending south. The largest customer within the district is the Canfor Plateau Mill, with a dedicated lateral extending from the mainline. In addition, one of the five compressor stations along the mainline is located within the District of Vanderhoof. It is currently inactive, but will continue to be maintained in the event that increases in demand warrant reactivation.

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 directly through Vanderhoof. As well, Highway 27 runs north to Fort St. James, and connects with Highway 16 within the District of Vanderhoof. 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. 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 or Rural OCP 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 capital projects planned for Highway 16 or Highway 27 through the Electoral Area. However, through the approximately $54 million in general improvements to Northwestern highways announced by the provincial government, several roads in the Vanderhoof area will be repaved.

7 Industrial Land Requirements

7.1 Introduction

This section identifies the industrial uses that have potential to locate in Electoral Area F 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 F.

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 Vanderhoof. 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 Vanderhoof's I1, I2, I3, I4 and RR2 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.

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

[1] Industry Canada, Trade Data Online

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

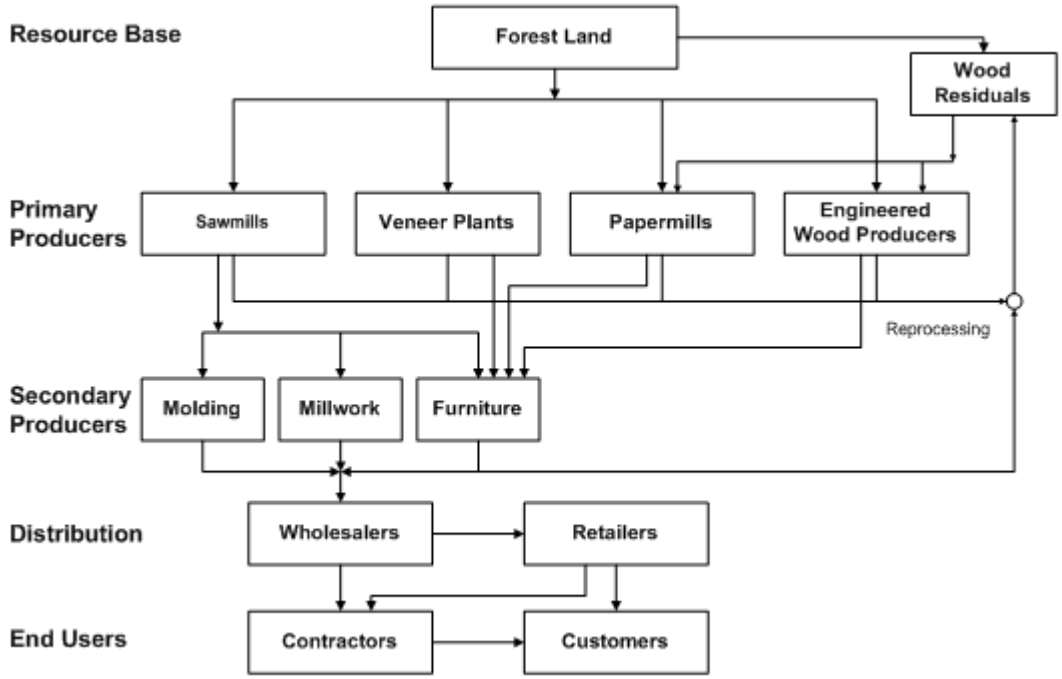
Common to the rural areas of the Northern interior, forestry forms a significant part of the economy of Bulkley-Nechako. With almost 23% of the workforce engaged in the forestry and logging; wood products manufacturing, or paper manufacturing industries, the local economy remains susceptible to these 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. Small-scale manufacturing plants could include light manufacturing and treatment/processing of wood products. In the case of specialty mill operations, both a wood window/door manufacturer and a shake and shingle mill, have been previously identified in the gap analysis conducted through the RDBN's Economic Development Action Plan. In addition, the Vanderhoof Rural Official Community Plan allows the development of Heavy Industrial uses, subject to the site being suitable for that activity. Examples of this could include a pellet plant, or fibreboard, plywood, and fencepost manufacturing activities. 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.

In summary, Electoral Area F is one of the stronger areas regarding the ability to site a larger-scale industry that can support biomass to energy projects throughout the Regional District. The possible development of a large-scale secondary manufacturer will also inevitably provide strength to any local co-generation plant, and could potentially draw one to the Electoral Area.

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-	▪ 3 Phase Power	M2	2-8 ha.

added) Manufacturing[2]	▪ Road/Rail Access		
Log yard	▪ Good Road Access	M2	2-4 ha.
Community Kiln	▪ Road Access	M2	2 ha.
Portable sawmill and Lumber Kiln	▪ None Specifically	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

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

[2] The Mining Association of Canada, Facts and Figures, 2008
[3] ibid
[4] Mining Economic Taskforce Report, 2009

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

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.

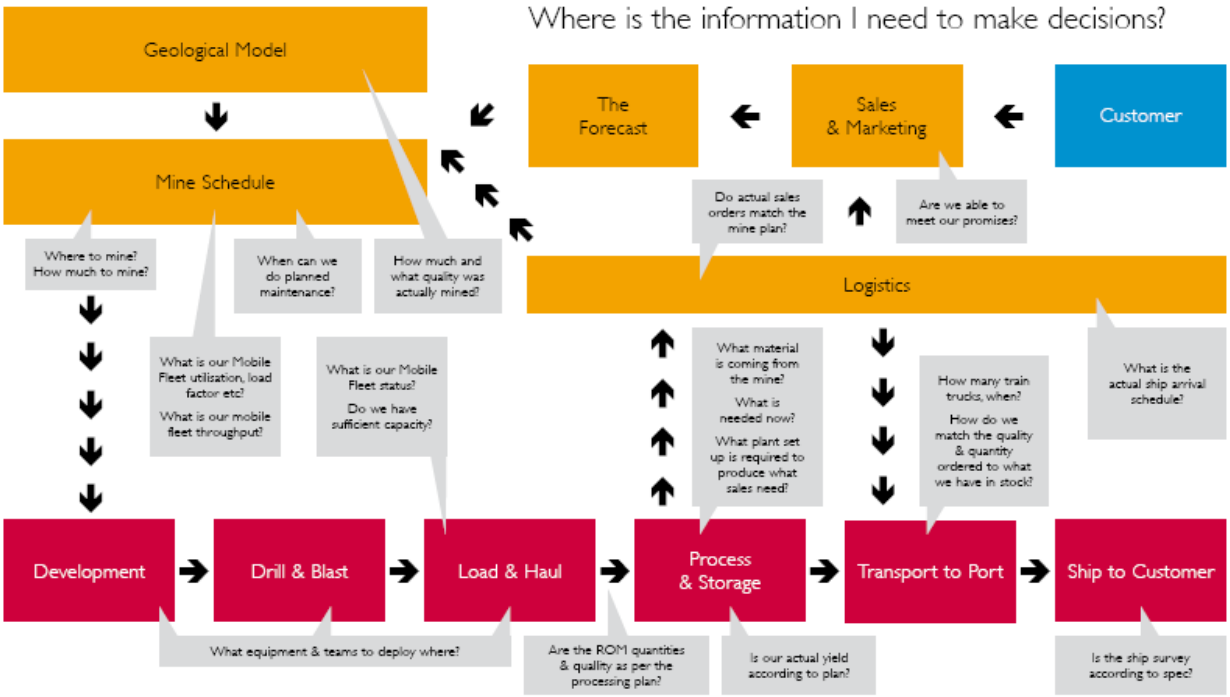
On the positive side, the demand from emerging markets lines up well with the mineral strengths of the Electoral Area. As demand surges for steel-making and metals, the mining strengths of the Regional District in copper, molybdenum, and to some extent gold, could begin to assist in the recovery of the 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, nor are there any mine sites in the environmental assessment phase. There are, however, extensive exploration sites and considerable mineral showings throughout Electoral Area F (TTM Resources Exploratory Activity to the south), and numerous sites in close proximity to Electoral Area F, such as the Nithi Mountain site in Electoral Area D. There likely exist future opportunities for mines to be developed. If a mine was to begin operations in the area, it would present opportunities for existing skilled trade workers and other support businesses in the area.

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

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements. There is good potential for growth within this sector in Electoral Area F, but based on current mining in the area, activities in this sector would likely be limited over the short-term. However, this could include support for exploratory operations like the storage and transportation of samples or explosives.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements

Warehouse Facilities for Sample Storage/Explosives/Equipment	▪ Good Road Access	M1	1-2 ha.
Maintenance, Heavy Equipment 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 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

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

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, Electoral Area F has a distinct advantage within the Regional District with regards to agriculture. Farms within the Electoral Area account for approximately 33% of the total farm area within the Bulkley-Nechako Census Division. This includes the largest proportion of crop activity in the Regional District, as well as the highest proportions of livestock activity. With regards to the latter sector of agricultural activity, Electoral Area F accounts for approximately 43% of calf/cattle operations, as well as 37% of swine in Bulkley-Nechako. Thus, agriculture may offer the best opportunities for the attraction of new industry, including: large and small-scale agriculture industries such as greenhouses, processing/packaging activities and, based on the local strength in livestock, abattoir or auction facilities. These strengths are specifically relevant with the growth in importance of local certified organic food products, and the 100 mile diet.

While Electoral Area A may have a specific strength regarding food backhaul opportunities that are not time sensitive (via Prince Rupert), Electoral Area F may be able to leverage the strong presence of an agricultural industry to offer backhaul opportunities in more time-sensitive agricultural products (via Prince George Airport) – pork and beef for example, or other niche products.

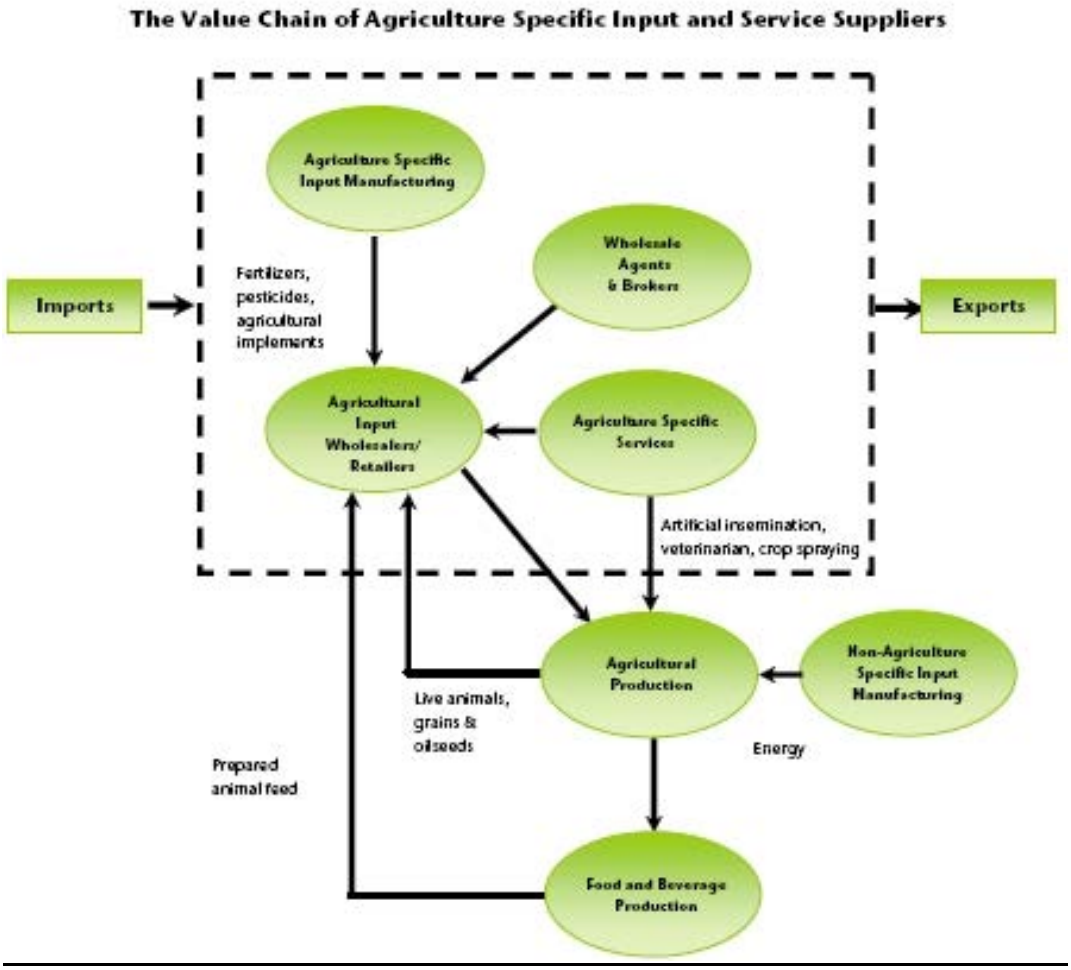
[11] CBC, From wheat to meat: cattle producers anxious over jumping feed prices, 2008

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.

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

Specific industry types are indicated below with infrastructure, zoning and parcel size requirements. It should be noted that some uses may require approval beyond the Regional District of Bulkley-Nechako.

Industry Type	Special Infrastructure Requirements	Zoning	Parcel Size Requirements
Abattoir	▪ Good Road Access ▪ Water	M3	2-4 ha.
Livestock Auction Arena	▪ Good Road Access	M3	6 ha.
Farm/Heavy Equipment repair and sales	▪ Good Road Access	M3	1-2 ha.
Greenhouse facilities	▪ Good Road Access ▪ 3-phase power ▪ Rail access - depending on products ▪ Water	Ag1 H2 RR1	1-2 ha.
Small to large-scale food processing/packaging facilities	▪ Good Road Access ▪ Rail Access – depending on products ▪ Water	M1	2 ha. +
Composting facility	▪ Good Road Access	M3	10 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

There have been discussions regarding the expansion of the Vanderhoof Airport to potentially accommodate increased short-hop traffic and Prince George increasingly focuses on long haul traffic. There appear to be related opportunities in the field of pilot training. These types of development may well require additional hangar construction, but will likely be limited to areas within the municipality.

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 will also support large scale IPPs that must be connected to the Provincial grid through transmission level infrastructure.

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. Due to the fact that the

Electoral Area is in close proximity to the Prince George Airport, these opportunities may be related to higher value goods that are transported by air.

Also, building on the strengths of the Vanderhoof Campus of the College of New Caledonia, there could be an opportunity to build a partnership between industry and the school to offer programs more specifically suited to a business through their contract training initiatives. Currently, courses offered from the campus in an industrial context include: Aboriginal Environmental Technician, Basic Prospector Training, Carpentry, Contractor Certifications, Driver's Training, Electrical (Foundation Level), Mining Exploration Field Assistant, Oil & Gas Training, Plumbing (Foundation Level), Residential Construction Framing Technician, and Entry Level Welding. The close proximity to associated apprenticeship programs in Smithers and Houston offers businesses in the Vanderhoof area the option to secure entry-level employees early, and send them for apprenticeship training within the Regional District. Specific industry types are indicated below with infrastructure, zoning and parcel size requirements.

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 linked to higher values goods	▪ Good Road Access ▪ Rail Access – depending on products	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.
Residential/Commercial Building Contractors (Framers, Plumbers, Electricians) – Associated Storage	▪ Good Road Access	M1	0.5-1 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 Uses

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
Large-scale Secondary (Value Added) Manufacturing	▪ 3-Phase Power ▪ Good Road Access ▪ Rail Access ▪ Water	M2	80 ha. +/-
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 of higher priced goods	▪ Good Road Access ▪ Rail Access – depending on products	M1	0.5-1 ha.
Abattoir	▪ Good Road Access ▪ Water	M3	2-4 ha.
Livestock Auction Arena	▪ Good Road Access	M3	6 ha.
Farm/Heavy Equipment repair and sales	▪ Good Road Access	M3	1-2 ha.
Composting Facility	▪ Good Road Access	M3	10 ha. +
Small to large-scale food processing/packaging facilities	▪ Good Road Access ▪ Rail Access – depending on products ▪ Water	M1	2 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 F, based on reviews of existing studies, reports, and consultations with local industries and experts. Presently, there is approximately 34 ha. of vacant useable industrial land in Electoral Area. 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 F which are underutilised, these are primarily zones Heavy Industrial (M2), 19.263 ha, which is in one site and Light Industry (M1), 13.002 ha, of which one site is 12.626 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)	25 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)	20 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)	5 ha.	1 ha. – 3 ha.

8 Potential Industrial Land Location 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	Highway 27 and Dog Creek Road (22kms South of Fort St James)	M1	12.626	12.626
2	Highway 27 (24kms South of Fort St James)	M2	19.263	19.263
3	6900 Teichroeb Road (and Highway 16), Vanderhoof	M3	16.240	2.123
Total			**48.129**	**34.012**

Parcels 1 and 2 represent two existing zoned industrial sites which have potential to be developed, though both are owned by the Crown. Parcel 3 is a small site but has some potential for small scale 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
F1	Northside Road, Vanderhoof	104.6 ha.	104.6 ha	AG1
F2	Highway 16 between Raymond Pit Road and Highway 27	122.9 ha.	122.9 ha	AG1
F3	Highway 16 and Highway 27	57.6 ha.	57.6 ha.	AG1

Parcels F1 through F2 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
F1	Northside Road, Vanderhoof	This is some of the best agricultural land in the community and it would not be the first choice for industrial development. There is also considerable existing land at the airport which should be developed first. This may have some long-term potential for industrial development particularly if the existing lands at the airport are developed and there is a need to expand.
F2	Highway 16 between Raymond Pit Road and Highway 27	This site is adjacent to the existing industrial land in the municipal boundary and represents the greatest potential for industrial land. There may be some question around the supply of water to this site.
F3	Highway 16 and Highway 27	Like potential site F2, this site is close to industrial lands within the municipal boundary, but has some topographical issues. The north half of the site is a very steeply sloped knoll and it is unlikely to be suitable for any industrial building. There was however a suggestion that it may be suitable for wind generation activity.

In addition to discussing the potential sites, the consultation also identified one other site which the region may want to consider. This site was:

Site	Feedback
Engen Road, North of Highway 16 at the rail road tracks	There is a former mill located just off Highway 16 on Engen Road as it meets the rail tracks. There is an existing rail siding at this site and there is some suggestion that this is being considered for a hay pellet plant.
Teichroeb Road and Highway 16	There is approximately 200 acres of land surrounding the existing Country Locker abattoir, which would be suitable for some form of industrial development. See Map 7.
63305 Highway 16	This site (see Map 8), is an old auction barn and with the land surrounding is has some potential for industrial uses. There was, however, some concern that for industries so far out of Vanderhoof (24kms) their tendency would be to go to Prince George for goods and services.

9 Conclusions

There are a total of 41.9 hectares of Existing Industrial Land in the study area. Approximately 6.7 hectares, or 16%, of the Existing Industrial Land is developed. Approximately 35.2 hectares, or 100%, of the remaining 35.2 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 2 ha in size, with only 2 parcels having usable portions estimated to be over 10 ha, one of which is 19ha.

The study has identified a potential demand for up to:

- 25 ha. of land in parcels that are from 0.5 ha. – 5 ha. in size for Light Industrial Use (warehousing, light manufacturing, transportation, etc.)
- 20 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)
- 5 ha. of land in parcels that are 1 ha. – 3 ha. for Agricultural Industrial Use (greenhouses, other large scale agricultural activities)

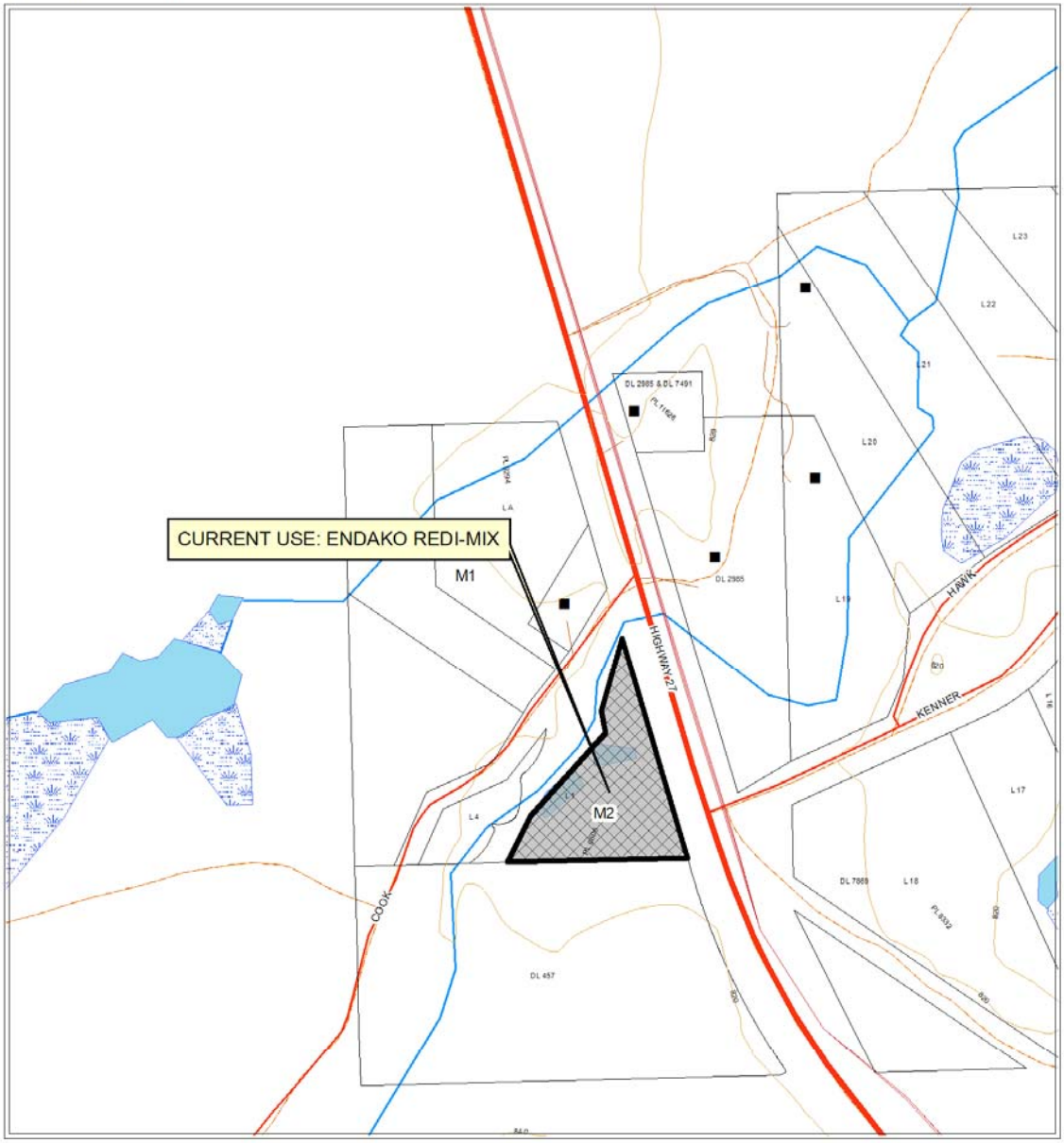
The study has identified, in Section 8 and Appendix B, properties that have some potential for industrial development. These properties total over 285.1 ha. of potential usable area. As part of the Official Community Plan review process for Electoral Area F, these lands will be further evaluated regarding 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 F - Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 1



ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	L 1 DL 2985 R5C PL 6606			
Civic Address:	Highway 27 and Cook Road (Omineca Redi-mix)			
PID:	008906904	**BCAA Folio Number:**	26-756-01760010	
Zoning:	M2	**ALR Status:**	No	
Parcel Size:	1.465 ha	**Ownership:**	Private	
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	1.465 ha	1.465 ha	0.0 ha	0.0 ha
Current Uses:	Omineca Redi-Mix			
Description:	Triangular site with Cook Road and Highway 27 forming two of the sides. Access to the site is from Highway 27 just opposite Kenner Road. Much of the site is low lying and relatively flat site with a small creek forming the north western boundary, before the land rises up to Cook Road. There is a residential property on Cook Road, which does not appear to be part of this site.			

INFRASTRCUTURE			
Road Access:	Yes, Highway 27	**3 Phase Power:**	n/a
Rail Access:	No	**Natural Gas:**	n/a
Other:	None		

Assessment:

Not a large site, with an appropriate existing use, making it unsuitable for any further development.

Existing industrial – Omineca Redi-Mix (site entrance – across from Kenner Road)

Existing industrial – Omineca Redi-Mix (site entrance)

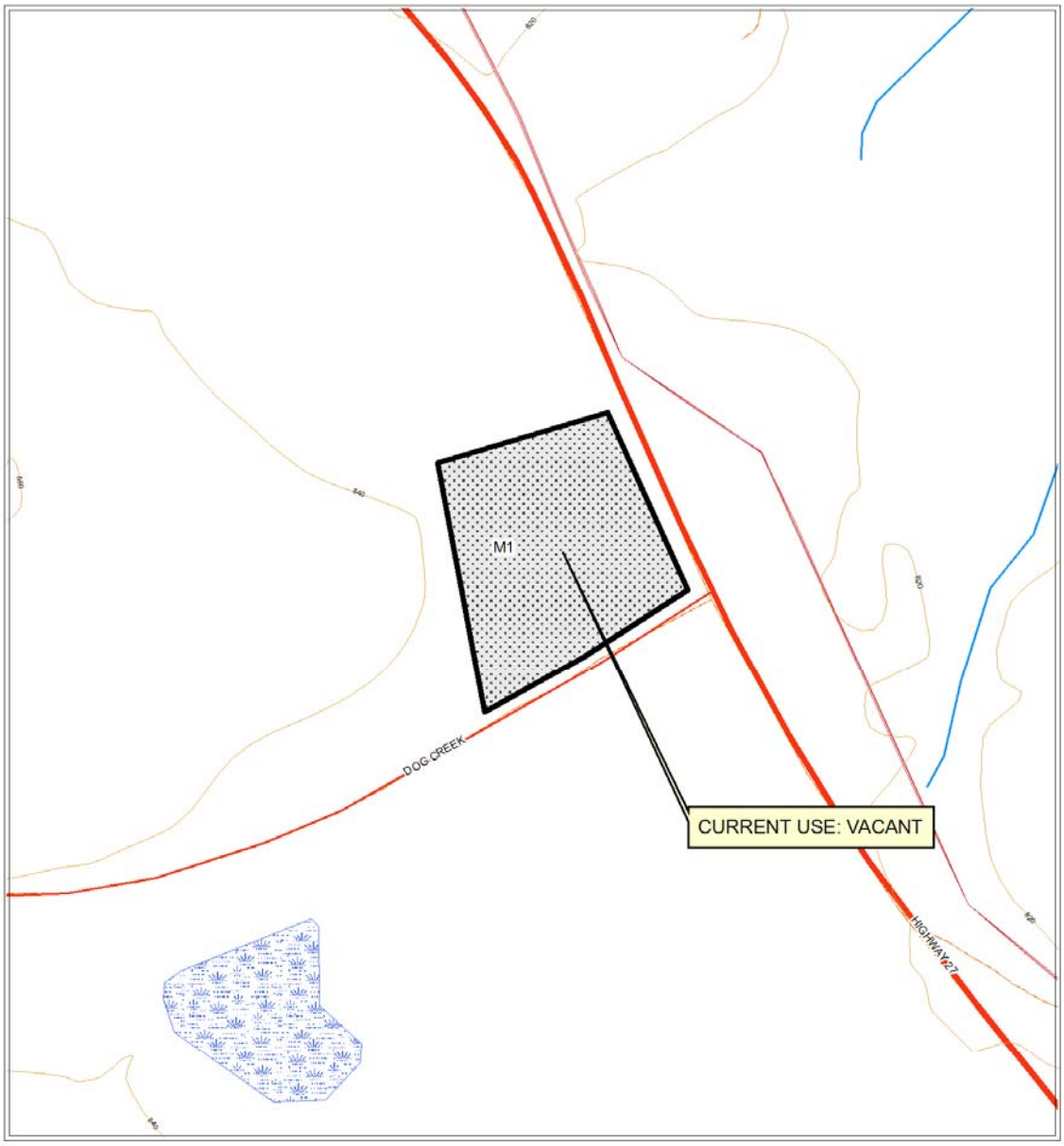
Existing industrial – Omineca Redi-Mix southern boundary of site

Existing industrial – Omineca Redi-Mix western boundary (from Cook Road)

Area F - 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 1:5,000

ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	N/A			
Civic Address:	Highway 27 and Dog Creek FSR			
PID:	N/A	**BCAA Folio Number:**	N/A	
Zoning:	M1	**ALR Status:**	N/A	
Parcel Size:	12.626 ha	**Ownership:**	Crown	
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	12.626 ha	0.0 ha	12.626 ha	12.626 ha
Current Uses:	Vacant			
Description:	This is a medium sized site at the junction of Highway 27 and Dog Creek Forest Service Road (just south of the Omineca Redi-Mix site). The site is trapezoidal in shape and sits well above the road level, with a relatively steep incline from the road. The site is currently undeveloped and is wooded. This site is currently Crown land.			

INFRASTRCUTURE			
Road Access:	Yes, on Highway 27	**3 Phase Power:**	No
Rail Access:	No	**Natural Gas:**	No
Other:	This site is 22.4kms from Fort St James and 33.4kms from Highway 16.		

Assessment:

A medium sized site that offers some potential to be developed for industrial uses.

Vacant industrial site – eastern boundary on Highway 27

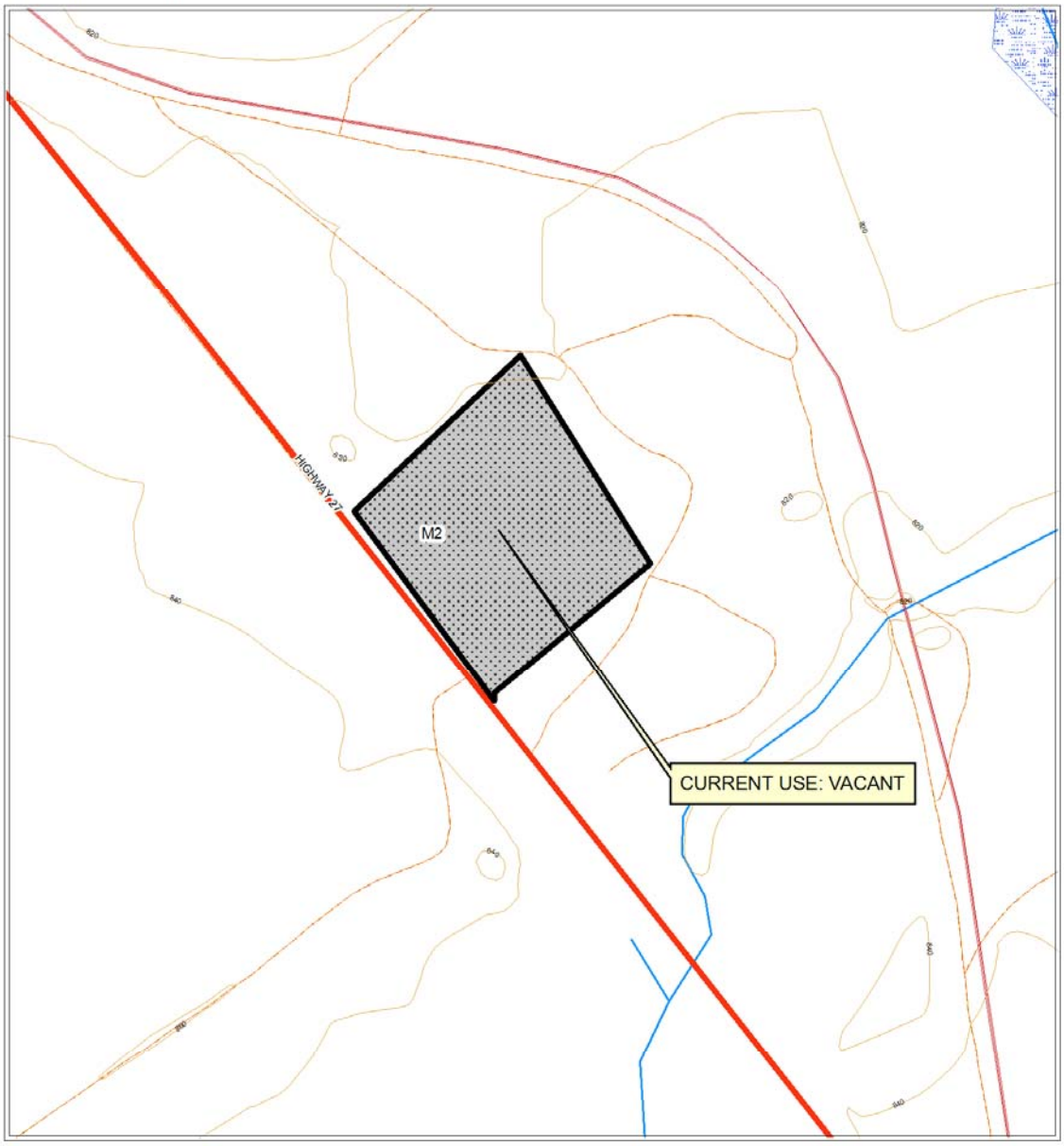
Vacant industrial site – southern boundary on Dog Creek Forest Service Road

Vacant industrial site – south eastern corner of site

Area F - 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 1:5,000

ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	N/A			
Civic Address:	Highway 27			
PID:	N/A	**BCAA Folio Number:**	N/A	
Zoning:	M2	**ALR Status:**	N/A	
Parcel Size:	19.263 ha	**Ownership:**	Crown	
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	19.263 ha	0.0 ha	19.263 ha	19.263 ha
Current Uses:	Vacant, undeveloped			
Description:	A completely undeveloped site raised slightly above the road level. There is a stream/creek running through the north west part of the site.			

INFRASTRCUTURE			
Road Access:	Yes, on Highway 27	**3 Phase Power:**	No
Rail Access:	No	**Natural Gas:**	No
Other:	The site is approximately 23.8kms from Fort St James and 31.7kms from Highway 16.		

ASSESSMENT

A completely undeveloped site that offers good potential to be developed for industrial uses.

Vacant industrial land from Highway 27

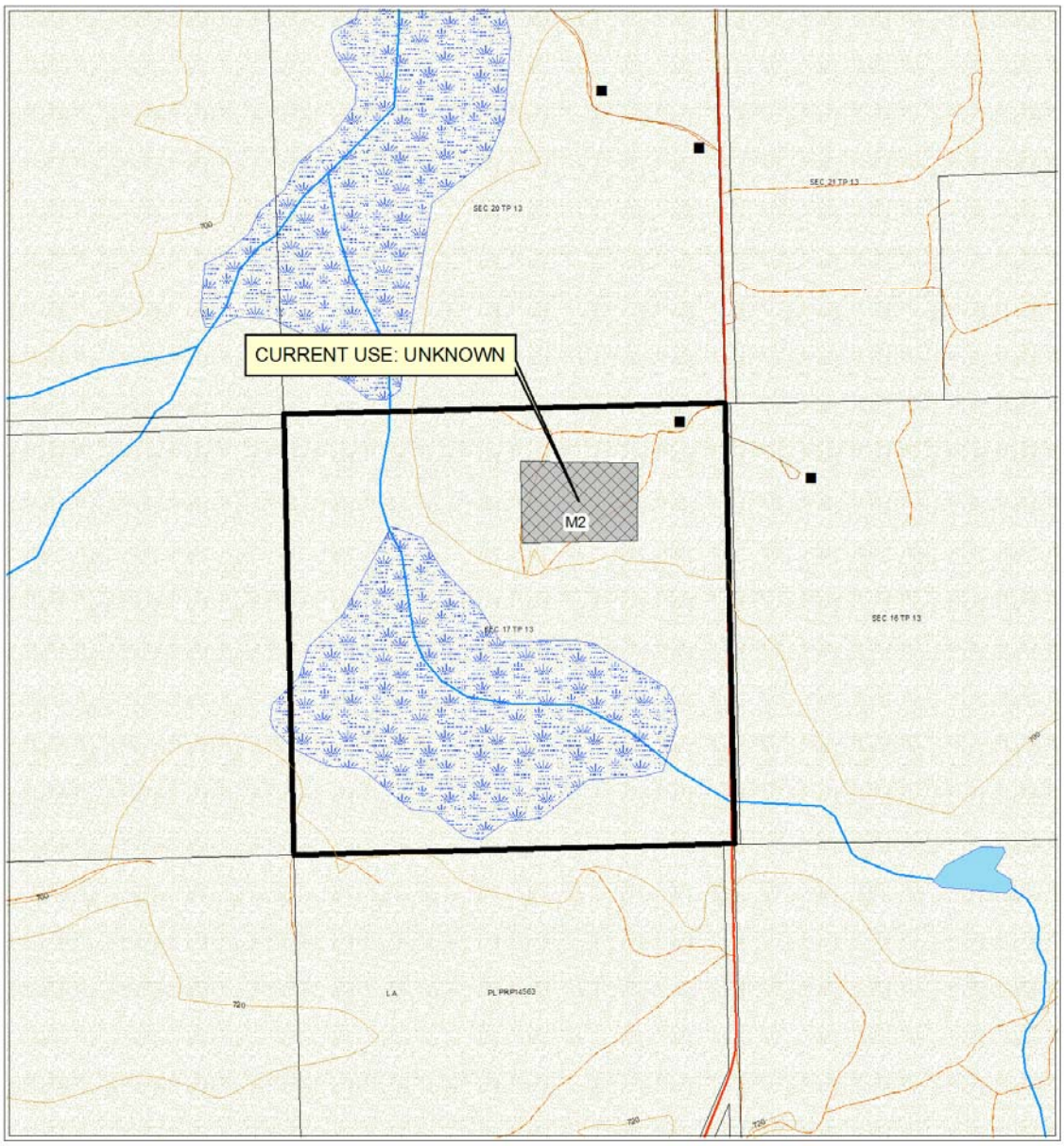
Vacant industrial land from Highway 27

Vacant industrial land – southern boundary of site

Area F - Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 4



ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	NE 1/4 OF SEC 17 TP 13 R5C			
Civic Address:	1965 McNolty Road, Egen			
PID:	015382338	**BCAA Folio Number:**	26-756-04490200	
Zoning:	M2	**ALR Status:**	Yes	
Parcel Size:	64.750 ha	**Ownership:**	Private	
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	3.523 ha	3.523 ha	0.0 ha	0.0 ha
Current Uses:	Unknown			
Description:	A very large site with a small area which has been designated heavy industrial. The site is very large, gently sloping from north to south. The industrial portion of the site is situated near the north east corner of the parcel with a residential property between it and McNolty Road. The industrial area includes a 10,000 sq ft steel building with a further 30 x 60 foot shop and numerous other outbuildings, including a greenhouse and motorhome shed. The property is currently for sale for $539,000 (Remax Vanderhoof, Jim Reimer, 250 570 2838; or propertyguys.com, 567 2096, ID# 83027).			

INFRASTRCUTURE			
Road Access:	Yes, 1.5kms from Highway 16	**3 Phase Power:**	Undetermined
Rail Access:	Not directly, at Highway 16	**Natural Gas:**	Yes
Other:	The site 23.7kms is from Vanderhoof		

ASSESSMENT

A small site obviously linked to the residential property.

Industrial parcel from McNolty Road, south of the site

Industrial parcel from McNolty Road, northern boundary of the site

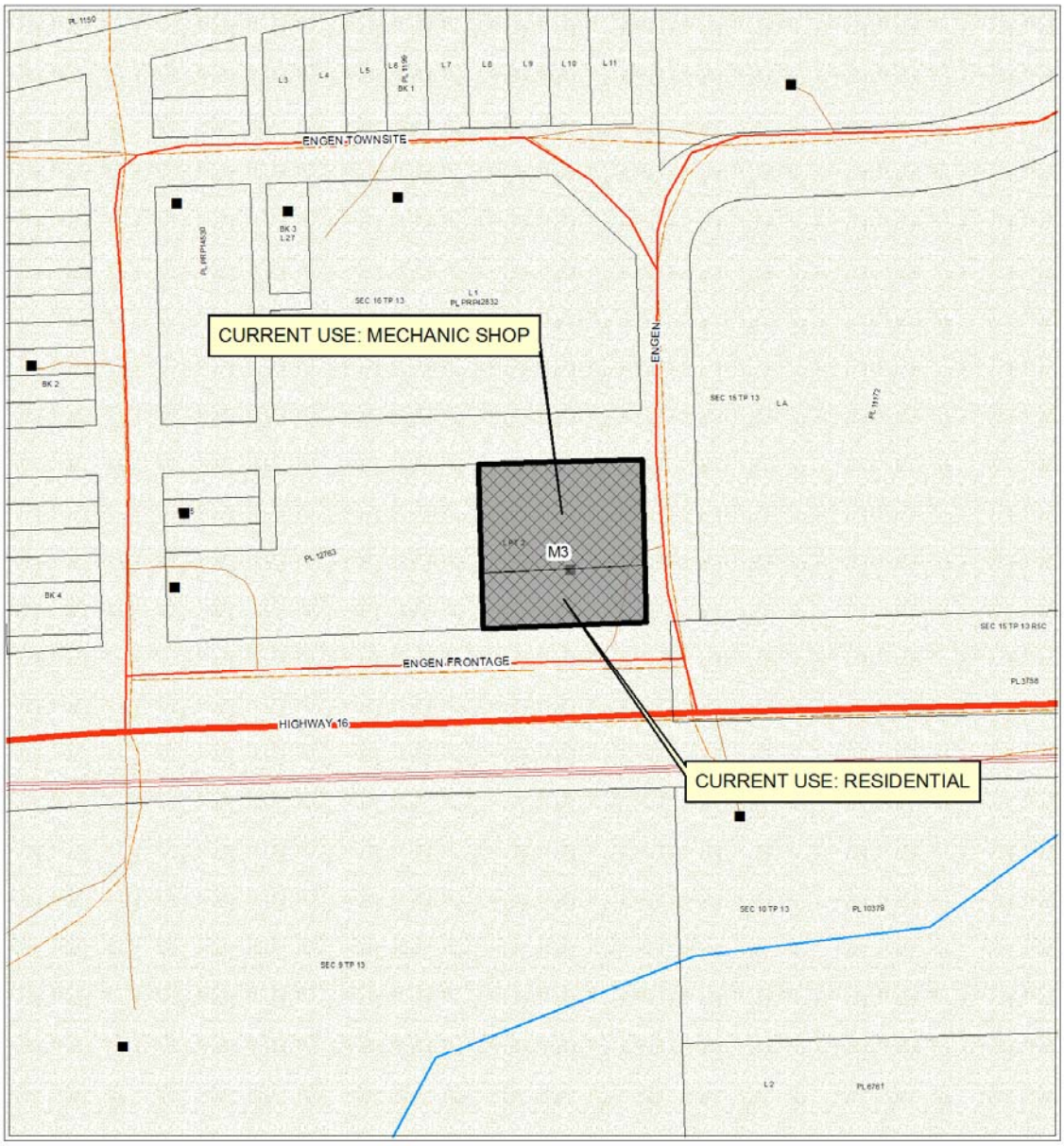
Existing Industrial – 10,000 sq ft steel building

Existing Industrial – 1,800 sq ft heated shop

Area F - 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 1:2,000

ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	L 2 SEC 16 TP 13 R5C PL 12763 EXC PL PRP14618			
Civic Address:	18510 Engen Frtg Rd			
PID:	016476638		**BCAA Folio Number:**	26-756-04488100
Zoning:	M1		**ALR Status:**	Yes
Site Size:	0.376 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	0.376 ha	0.0 ha	0.376 ha	0.376 ha
Current Uses:	Unknown light industrial use and residential			
Description:	A very small flat site at the junction of Engen Road and Highway 16. There is currently an industrial building on the site, with no obvious use, and a large number of disused vehicles. To the southern boundary of the site is a residential property, which is directly connected to the industrial building. There is also a small shed to the western boundary of the property, which appears to be the back garden of the residential property.			

INFRASTRCUTURE			
Road Access:	Yes, on Highway 16	**3 Phase Power:**	Undetermined
Rail Access:	No directly, 500m north on Engen Road	**Natural Gas:**	Undetermined
Other:	The site is 20kms from Vanderhoof and 39kms from Fraser Lake		

ASSESSMENT

A very small site which offers little use for industrial development.

Existing industrial use – industrial shed

Existing industrial use – outdoor storage of scrap vehicles

Residential property and back yard

Residential property and scrap vehicles

Area F - 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 1:10,000

ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	SE 1/4 OF SEC 29 TP 11 R5C EXC PL PRP14960			
Civic Address:	5896 Northside Road			
PID:	015845737		**BCAA Folio Number:**	26-756-04252000
Zoning:	M3		**ALR Status:**	Yes
Parcel Size:	60.067 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	1.716 ha	1.716 ha	0.0 ha	0.0 ha
Current Uses:	Glen Dale Agri Services			
Description:	A large agricultural holding with a small agricultural industrial area. The site is very large flat and open with a number of industrial buildings near the centre of the parcel. There is also a residential property on site close to the industrial buildings. Glen Dale Agri Services are a high-volume agri-business selling fertilizer, seed, feed, chemicals, retail & general farm/ranch supplies. Their main retail operation is located on Highway 16 to the west of Vanderhoof. This business is currently for sale for $5,000,000 (not including stock).			

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	Undetermined
Rail Access:	No	**Natural Gas:**	Undetermined
Other:	The property is 7.8kms from Vanderhoof and 2kms from the Vanderhoof Airport.		

ASSESSMENT

An agricultural industrial parcel which is part of the residential property, unlikely to be developed for other industrial uses.

Existing agricultural industrial parcel from south east corner of site (Northside and Striegler Roads)

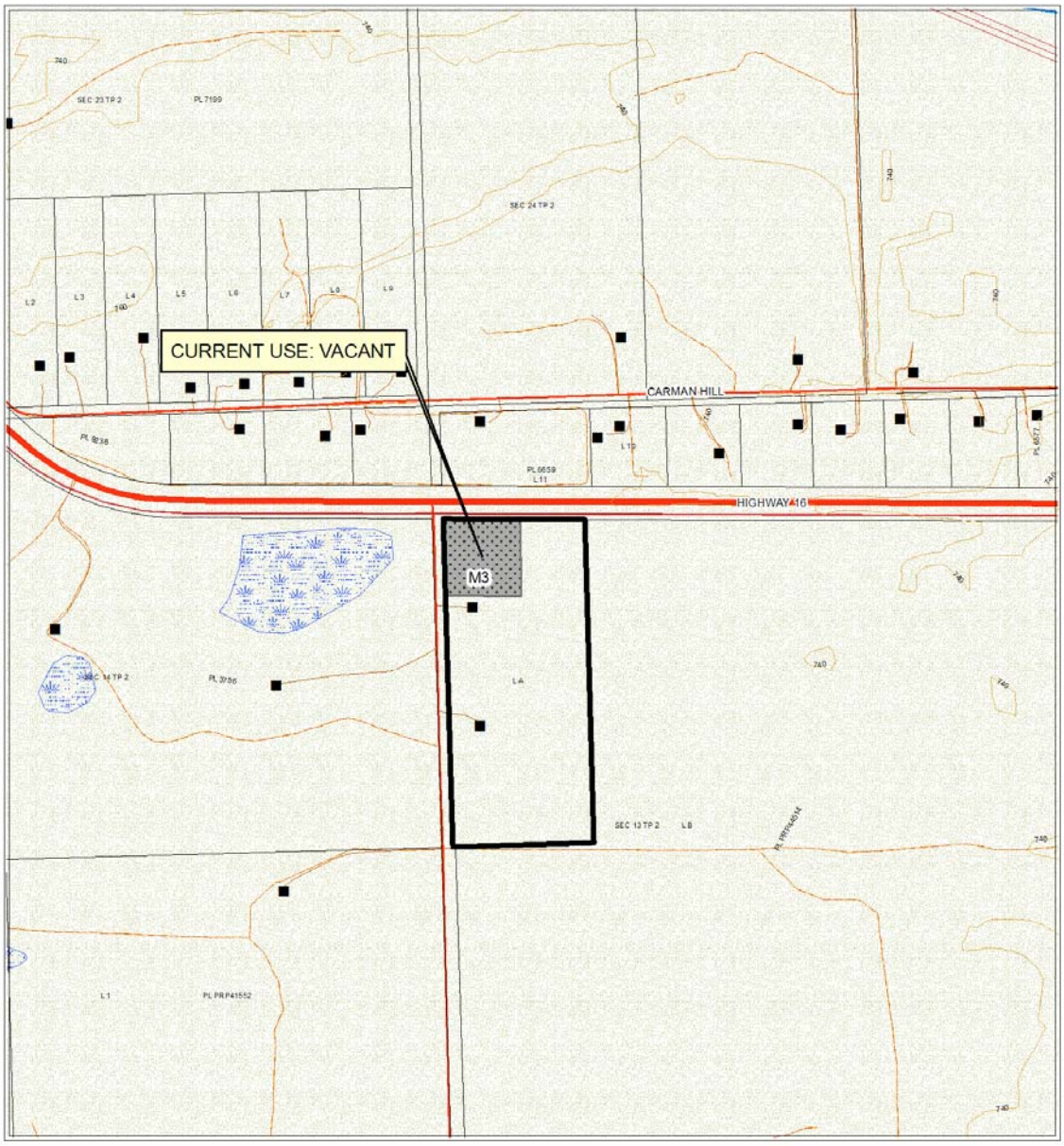
Eastern boundary of existing agricultural industrial parcel (from Striegler Road)

Existing agricultural industrial use – signage

Area F - Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 7



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: F

PARCEL DESCRIPTION				
Legal Description:	L A SEC 13 TP 2 R4C PL PRP44514			
Civic Address:	6900 Teichroeb Road and Highway 16			
PID:	024589586		**BCAA Folio Number:**	26-756-00423000
Zoning:	M3		**ALR Status:**	Yes
Site Size:	16.240 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	2.123 ha	0.0 ha	2.123 ha	2.123 ha
Current Uses:	Vacant, undeveloped			
Description:	A small square flat and open site at the intersection of Teichroeb Road and Highway 16. Currently it is used for pasture and there is a small animal shelter. The site is possibly connected to the neighbouring business, the Country Locker, a retailer of specialist meats.			

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	n/a
Rail Access:	No	**Natural Gas:**	n/a
Other:	The site is 8.4kms from Vanderhoof		

ASSESSMENT

A small site with some potential for small scale agricultural industrial development.

Vacant agricultural industrial parcel - northwestern corner of the site from Teichroeb Road

Vacant agricultural industrial parcel - northern boundary of site from Teichroeb Road

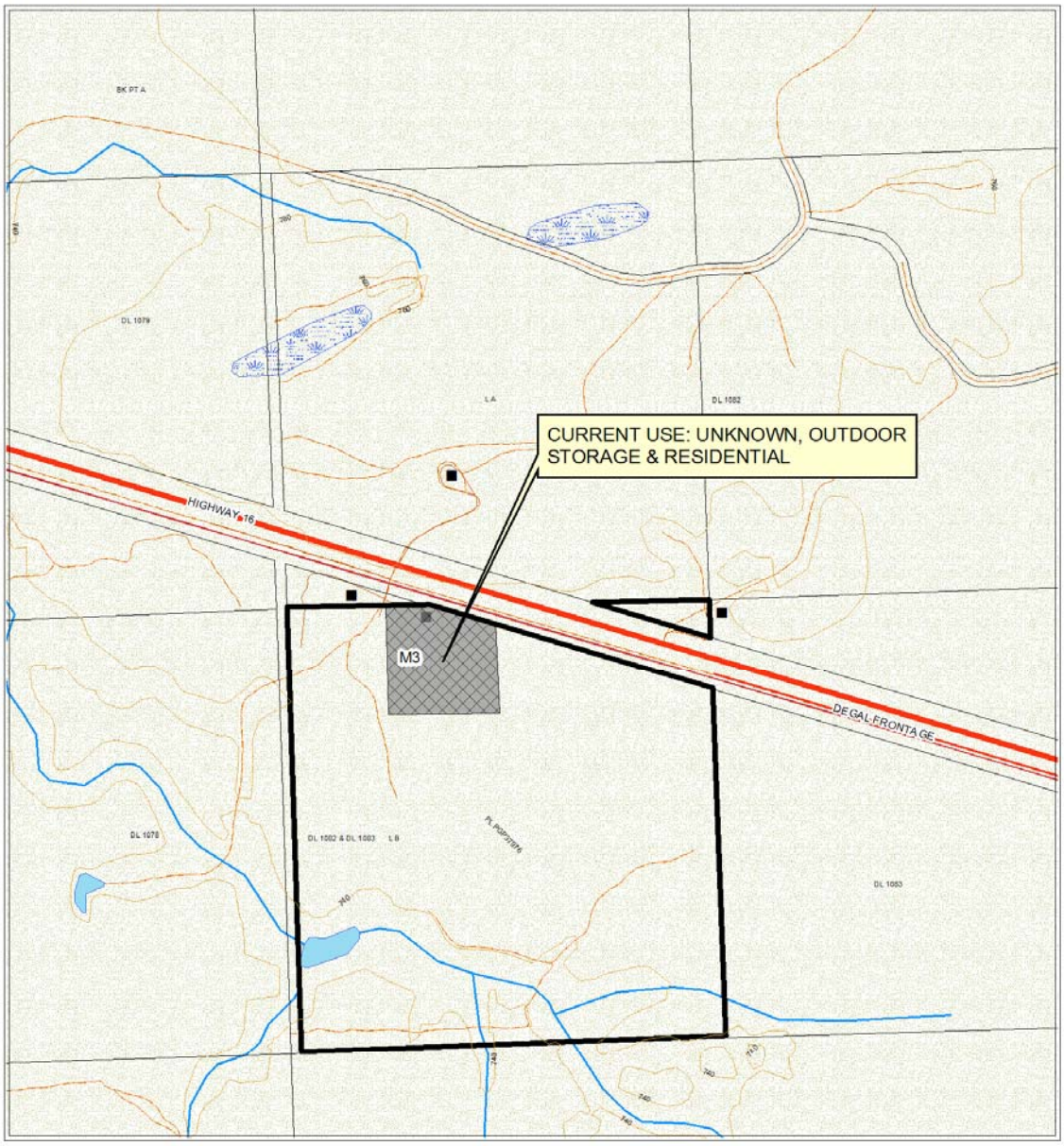
Vacant agricultural industrial parcel – eastern and southern boundary of site from Teichroeb Rd

Adjacent retail establishment (Country Locker)

Area F - Industrial Land Use Study

Appendix A: Exisiting Rural Industrial Lands

Map 8



ELECTORAL AREA: F

PARCEL DESCRIPTION				
Legal Description:	L B DLS 1082 & 1083 CARIBOO PL PGP37976			
Civic Address:	63305 Highway 16			
PID:	018775985		**BCAA Folio Number:**	26-756-00097300
Zoning:	M3		**ALR Status:**	Yes
Parcel Size:	59.197 ha		**Ownership:**	Private
Industrial Land:	**Total**	**Developed**	**Vacant**	**Usable Vacant**
	0.846 ha	0.0 ha	0.846 ha	0.846 ha
Current Uses:	Unused, was an auction barn.			
Description:	A large parcel with a small agricultural industrial area. The agricultural industry zoned parcel consists of a 2 story industrial building, as well as a significant outdoor storage shed. There is also residential trailer on the site as well, which appears to be occupied. The industrial parcel is relatively flat but slopes down towards a creek flowing through the middle of the site.			

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	Undetermined
Rail Access:	No	**Natural Gas:**	Undetermined
Other:	Site is approximately 25kms from Vanderhoof		

ASSESSMENT

A small site with some limited potential for a small scale industrial operation.

Entrance to agricultural industrial parcel from Highway 16

Existing industrial building

Existing covered outdoor storage and residential trailer behind

Land between industrial building and residential area

Appendix B – Potential Industrial Land

PARCEL F1

PARCEL DESCRIPTION			
Legal Description:	SW 1/4 OF SEC 28 TP 11 R5C & SE 1/4 OF SEC 28 TP 11 R5C EXC PL 5205		
Civic Address:	Northside Road, Vanderhoof		
PID:	008-847-592 007-785-917	**BCAA Folio Number:**	2675604139000 2675604129000
Parcel Size:	104.6 ha.	**ALR Status:**	In ALR
Zoning:	AG1	**Ownership:**	Private
Current Uses:	Agricultural		
Description:	A large parcel which is open and flat, and is currently used for agricultural purposes. The site is directly opposite the municipal airport in Vanderhoof, which itself has large tracts of vacant land.		

INFRASTRCUTURE			
Road Access:	Yes	**3 Phase Power:**	N/A
Rail Access:	no	**Natural Gas:**	Yes
Other:	Municipal Airport is on south side of Northside Road directly across from site.		

SPECIAL CONSIDERATIONS			
Rezoning Required:	Yes	**ALR Application Required:**	Yes
Other:	The site is directly across from the municipal airport in Vanderhoof, making it suitable for some industrial used which may benefit from proximity to the airstrip. There is also access to Highway 27 via Northside Road/Snell Road E which avoids coming to the site through Vanderhoof.		

Eastern boundary of site from Northside Road

Southern boundary from eastern part of site from Northside Road

Southern boundary from western end of site (junction of Northside Road and Striegler Road)

Western boundary from junction of Northside Road and Striegler Road

PARCEL F2

PARCEL DESCRIPTION			
Legal Description:	SW 1/4 OF SEC 11 TP 12 R5C & SE 1/4 OF SEC 11 TP 12 R5C		
Civic Address:	Highway 16 West		
PID:	004-616-375 015-848-507	**BCAA Folio Number:**	2675604300000 2675604299000
Parcel Size:	122.9 ha.	**ALR Status:**	In ALR
Zoning:	AG1	**Ownership:**	Private
Current Uses:	Agricultural and vacant		
Description:	A large area on Highway 16, bounded by Highway 27 to the west and Redmond Pit Road to the east. This is a large site which is mainly agricultural land to the western half and a densely wooded area to the eastern end of the site. The south west corner of the site has a creek running through it with steep banks towards it. The eastern end is largely below the grade of Highway 16 and has some low lying wet areas.		

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:	Similar to the other potential development site in this area, this site is at the junction of Highway 16 and 27 and is close to the municipal boundary of Vanderhoof, making it ideal for industrial development. There are, however, a number of existing farm and residential properties on this site which may make development more difficult. There also appears to be some low lying wetlands through parts of the site.		

Southern boundary from junction of Redmond Pit Road and Highway 16

Middle of site from Highway 16

Southern boundary (Highway 16) from middle of site

Site from junction of Highway 16 and Highway 27

Site from north western boundary (along Highway 27)

PARCEL F3

PARCEL DESCRIPTION			
Legal Description:	S 1/2 OF SEC 10 TP 12 R5C EXC FIRSTLY THE W 1/2 SECONDLY THE W 40 FT THIRDLY PT ON HWY SRW PL 11430 FOURTHLY PT SRW PL BCP28616		
Civic Address:	Highway 16 West, Vanderhoof		
PID:	011952245	**BCAA Folio Number:**	2675604295000
Parcel Size:	57.6 ha.	**ALR Status:**	In ALR
Zoning:	AG1	**Ownership:**	Private
Current Uses:	Agricultural land, there is a truck weight station at the junction of Highway 16 and Highway 27.		
Description:	A medium sized parcel that is primarily flat and open, though the northern boundary is a hill which is heavily wooded. The south eastern boundary has a creek running through it with steep banks down to the water.		

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

SPECIAL CONSIDERATIONS			
Rezoning Required:	Yes	**ALR Application Required:**	Yes
Other:	Proximity to the junction of Highways 16 and 27 and its proximity to Vanderhoof make this an ideal site for industrial development. The weight station makes this a suitable site for some form of transport / logistics / freight break out functions.		

Eastern boundary along Highway 27

Main part of site

Southern boundary along Highway 16

Parking lot of weight station and site beyond

Site from weight station parking lot