

(Electoral Area Portion)

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1.0 INTRODUCTION

The Board of the Regional District of Fraser-Fort George has identified the economic diversification of the region as a Strategic Priority. It has done so recognizing that economic development needs to be done in the context of the interests, mandates and abilities of other organizations in the region. To maximize potential outcomes, partnering with agencies that have similar goals or related mandates is required. One of the cornerstones of the strategy is to review and update the 2001/02 Prince George Area Industrial Land Study. The Profile is to evaluate and prioritize the best sites for potential development. Following the completion of the Profile, the most appropriate development sites are to be brought up to market availability. Ultimately, a joint inventory of available industrial land between the City of Prince George and the surrounding Electoral Areas is to be an ongoing marketing product.

1.1 BACKGROUND (2001-02 INDUSTRIAL LAND STUDY)

In the late 1990's, there emerged an identified shortage within the City of Prince George of industrial land appropriate for the development of heavy industry. Therefore, the City and the Regional District jointly initiated a process to identify lands that could accommodate new industry. The Study was culminated in 2001 and was endorsed by the Regional Board in January, 2002. Participants in the development of the Industrial Lands Study included the Regional District, City of Prince George, Ministry of Environment including the Water, Wildlife and Habitat and Air Quality Branches, Ministry of Transportation, Ministry of Agriculture and the Federal Department of Fisheries and Oceans. The BC Land Reserve Commission was referred to, but did not send a formal response. The Land Commission did however participate in the review of the Pineview Official Community Plan that reflected the recommendations of the Industrial Land Study.

General parameters evaluated in the review of land around Prince George included:

- Physical
- Agricultural soils
- Soil stability
- Terrain
- Flood potential
- Water supply
- Air movement
- Pollution sensitivity
- Wildlife
- Cultural
- Distance from settlement
- Ownership
- First Nations interests

- Service Proximity
- Rail & Road accessibility
- Electricity
- Natural Gas
- Airport
- Regulatory
- A.L.R.
- O.C.P. & Zoning
- Environmental
- Property taxes
- Provincial forest status

There were a number of qualitative factors considered in the original heavy industrial lands study to reduce the potential of air quality impacts from new industry. The most critical was locating outside of the river valleys, to reduce the effects of topographical channelling, stagnation, and fumigation on emissions. Another critical factor was distance from receptors at higher elevations that might be impacted by plumes or odour emissions.

Lands that were evaluated were placed into the following recommended industrial categories:

- Heavy: No predetermined restrictions on size or emissions within environmental limits.
 Potential for off site impacts.
- Intermediate: Minimal emissions with off-site impacts limited to immediate area only.
- Light: Minimal to zero emissions with negligible impacts on surrounding uses.
- Not Recommended for industrial use.

Areas that were recommended for potential industrial use included:

- Salmon Valley (Hart North) Heavy Industrial
- Isle Pierre Intermediate
- Clear Lake Heavy
- Stoner Heavy
- Willowcale Intermediate
- Shelley Light and Intermediate

These areas are delineated on a map attached to the Study, but were not meant to be completely definitive to those properties, but generally applicable to the immediate vicinity.

The 2002 Industrial Land Study is now over six years old and there have been significant changes in the region since the Study was developed, such as:

- First Nations relations & treaty negotiations
- Prince George International Airport expansion
- The Prince Rupert/Kitimat Port developments
- Emerging Prince George Inland Port opportunities
- The Pine Beetle epidemic and accompanying programs
- CNR purchase of BCR
- Highway No. 97 South enhancements
- Increased interest in tourism opportunities
- Petroleum pipeline proposals
- Mineral mining acceleration
- Petroleum exploration

The City of Prince George is currently evaluating its ability to accommodate additional light industrial land. Demand for such lands is growing most notably in response to the expanding Prince George International Airport and opportunities arising from the Prince Rupert Port developments. To complement this effort, and to continue with the identified need to direct potential emission generating industry outside of the Prince George Air shed, it is now timely to review and build on earlier efforts by updating the 2002 Study in conjunction with the City's industrial land process.

1.2 INDUSTRIAL LAND PROFILE OVERVIEW AND INTENT

In order to accommodate business interests that require land for industrial use, there needs to be a coordinated approach between the Regional District, the City of Prince George, Provincial Integrated Land Management Bureau, and private business towards enabling the supply of all types of industrial lands. Furthermore, the potential for environmental impacts of new industry, such as on the Prince George airshed and other settled areas, needs to be an instrumental element in the selection of potential industrial development areas.

Given these circumstances, the City of Prince George, the Regional District of Fraser-Fort George, the Lheidli T'enneh and McLeod Lake First Nations, Initiatives Prince George, and the Ministries of Environment and Agriculture and Lands formed a steering committee to develop an Industrial Profile of the area with the intent of helping to direct industry to the most suitable lands.

There is an inventory of information for potential industrial sites developed in the 2002 Prince George and Area Industrial Lands Study. Criteria essential to accommodating industry is to be refined within the environmental and regulatory limitations that this area faces. Identified sites need to be formalized in planning policy and additional detailed development information gathered and analyzed. Ultimately, lands should be made market ready, and close to market ready, for ease of development by prospective businesses.

A current and maintained inventory of lands available for industrial use, within the City and the Electoral Areas of the Regional District, is to be a critical deliverable from this exercise. Finally, as some businesses may have needs that are not completely addressed in this industrial profiling process, a procedure needs to be developed for considering potential industrial lands at alternate locations.

1.2.1 Primary Objectives

The primary objectives that the 2008 Prince George Area Industrial Land Profile is to achieve are:

- 1. To build upon the concepts, principles and sites identified in the 2002 Prince George Area Industrial Study;
- 2. To identify additional sites that are suitable to accommodate industrial uses within the Prince George area;
- 3. To build an industrial land inventory system within the City of Prince George and surrounding Electoral Areas that is kept up to date and readily accessible.
- 4. To focus on accommodating industry that will take advantage of the area's transportation structure and other natural assets;
- 5. To prioritize recommended industrial development sites to help focus resources on their preparation for accepting sustainable development;
- 6. To develop an acceptable level of 'pre-clearance' of identified appropriate sites to shorten the time period for development approvals, without overriding due process in project review by applicable agencies and the public;
- 7. To develop a marketing strategy for identified sites applicable to all participating agencies.

1.2.2 Industrial Classifications

Lands evaluated in the Industrial Land Profile have been considered for inclusion within the following industrial categories:

"Heavy Industry": The location should be able to accommodate industrial development where there are no predetermined restrictions relating to size of structures or scale or nature of operations. All potential emissions would have to meet current industry standards as determined by current environmental regulations. Such uses may have the potential to have off site impacts in terms of air emissions, noise, or visual appearance.

Uses that could likely be expected to characterize Heavy Industry, as outlined is the North American Industry Classification System (NAICS), would include pulp mills, petroleum refining, medium density fibreboard production, mining processing, plastics processing, primary metal industries and similar uses that typically require large amounts of land.

• "Intermediate Industry": The location should be able to accommodate industrial development that has minimal on-site air emissions. This level of industrial use could potentially impact areas in close proximity, but not beyond.

NAICS uses that could likely be expected to characterize Intermediate Industrial would include many logging and forest industries (modern sawmills), service industries incidental to mineral extraction, primary manufacturing, beverage, machinery, electrical or electronic industries that have a low potential to have extensive off-site impacts.

"Light Industry": The location would accommodate industrial/business development that does not produce off-site impacts from emissions or noise, other than possibly from transportation levels and nature. Serviced light industrial development are expected to be mostly located within a municipality, which should include the majority of such uses.

Uses that could likely be expected to characterize Light Industry would include electronics or furniture manufacturing, warehousing and distribution and support services for other industrial operations. There should be no off-site impacts from on-site activities and functions.

It would be expected that light or intermediate industries could locate in close proximity to the heavier industrial uses that they support, supply or service.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS)

The following table represents examples of NAICS major categories for industrial uses and a range of possible uses, which are found within each category. The table also designates each of the uses as being either Heavy, Intermediate or Light Industrial uses as per the definitions in the Industrial Lands Profile.

The purpose of this table is to give some direction with respect to the types of industrial uses that this study recognizes as being Heavy, Intermediate or Light.

NAICS MAJOR		INDUSTRIAL DESIGNATION		
CATAGORIES	SAMPLE USES	HEAVY	INTER	LIGHT
Mining	metal ore miningnon-metallic mineral mining	Х		
Utilities	 electric power generation, transmission and distribution 	Х		
Paper Manufacturing	pulp millschemical pulp millspaper board mills	х		
Petroleum and Coal Products	petroleum refineriesasphalt paving, roofing and saturated materials	х		
Chemical Manufacturing	petrochemicalindustrial gasresin and synthetic rubber	Х		
Primary Metal Manufacturing	 iron and steel mills aluminum production and processing non ferrous metal smelting ferrous metal foundries 	Х		
Transportation Equipment Manufacturing	heavy duty trucks motor vehicles		Х	
Wood Products Manufacturing	 sawmills (modern) shingle and shake mill veneer, plywood engineered wood products 		х	
Wood Product Manufacturing	- prefabricated buildings		Х	
Plastics and Rubber Products Manufacturing	plastic pipeplastic fittingsplastic bottles		Х	
Fabricated Metal Product Manufacturing	- forging - stamping		Х	
Machinery Manufacturing	agriculturalindustrialmining		Х	
Computer and Electronic Product Manufacturing	computers and perilipheralsaudio video equipment			Х

Furniture Manufacturing	- furniture - cabinets		Х
Warehousing and Storage	- general or refrigerated, postal sorting		Х

1.2.3 Additional Research Needed

While there is significant work being done on what types of industry to attract, once identified, those industries need an economically viable and environmentally acceptable location from which to operate.

The City of Prince George's air shed has been identified as not being able to accept additional air emissions without compromising the health of its citizens. The City and the Ministry of Environment have been working for years on strategies to limit air emissions with several initiatives being pursued simultaneously towards this goal. Securing safe and economically viable industrial sites that will not negatively impact the air shed is important in Prince George's efforts to diversify its economy without negatively affecting its citizens.

By having credible information upon which to base location decisions, industry will be able to make critical capital investment commitments that will diversify the local economy. The economy of the Prince George area is/has been heavily dependent on the forestry sector. With the upcoming shortfall in harvestable timber as a result of the Mountain Pine Beetle devastation, alternate economic opportunities are essential to this region. Having a credible industrial land base ready to develop will help significantly to attract a larger economic base for the community.

The work done on the industrial profile to date has been based on available information that is adequate to provide good direction to lands that should be able to accommodate industrial development. However, much more detailed and reliable technical information is required to enable industrial interests to be secure in the knowledge that potential development sites will support their interests without having undesirable impacts on the environment or the local population. The Ministry of Environment has provided a 2006 air movement (wind) profile for in and around the City of Prince George which may be utilized for some of the potential sites close to the City. This information, however, is not available for a majority of the sites being investigated.

Therefore, the Regional District has applied to the Western Economic Diversification Canada's: Mountain Pine Beetle Community Economic Diversification Initiative for funding of additional information gathering and analysis for the sites identified in this Industrial Lands Profile. While this information is not necessarily critical to the completion of the Profile, it will add additional data to support business locations in the identified sites. This information should also provide a significant amount of environmental background to aid in the environmental assessment stage of new major project reviews.

The segments of information identified for further investigation at specified locations include:

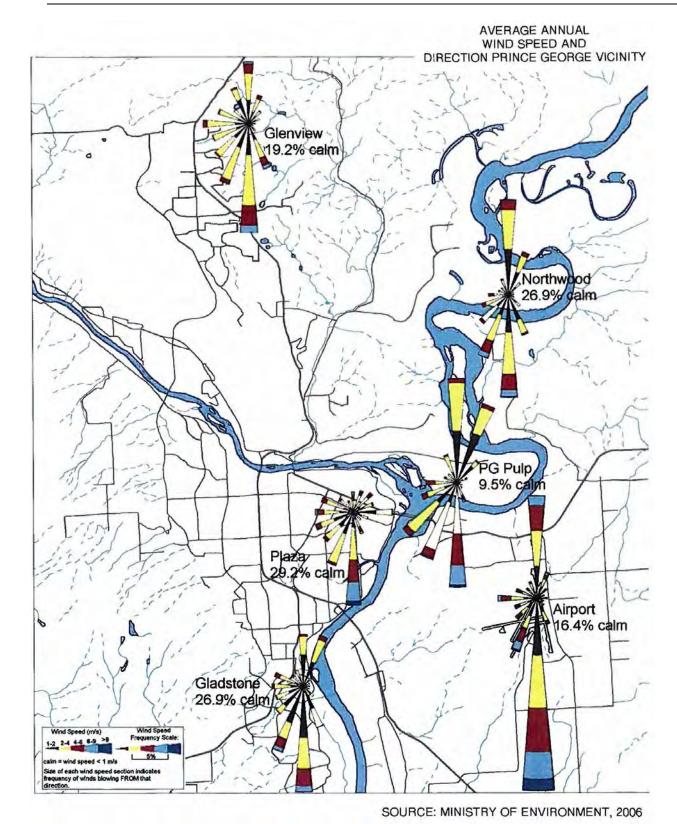
- a) Environmental sensitivities on and around identified sites and potential mitigation alternatives (especially for air emissions):
- b) Geotechnical analysis of terrain and soil conditions;
- c) Essential transportation accessibility and upgrades that may be necessary and potential traffic impacts:

d) Acceptability of existing utility infrastructure and upgrades necessary to accommodate industry.

Results of this analysis may be used in the evaluation of the broader traffic impacts of development and potential solutions thereto.

1.2.4 Alternative Site Evaluations

While the Industrial Land Profile has identified a number of sites that could accommodate a wide range of industrial uses, sites that have several economical location and infrastructure advantages and have had preliminary environmental considerations, these may be other sites identified by industry or a developer that could also be viable. Such sites should be evaluated for consideration of amendments to an OCP, zoning or ALR application is a similar manner as has been done for the sites subject to this analysis. Included in such analysis, there should be a rationale provided as to why the sites recommended by the Industrial Land Profile, or those identified within a municipality, are not seen to be adequate to meet identified needs.



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2.0 LAND USE PLANNING AND REGULATIONS

2.1 OFFICIAL COMMUNITY PLANS

The Regional District of Fraser-Fort George has five current Official Community Plans within the Industrial Profile area, and a sixth nearing completion. They are:

- 1. Salmon River-Lakes (Electoral Area 'A') 1996
- 2. Chilako River-Nechako (Electoral Area 'C') 1996
- 3. Tabor Lake-Stone Creek (Electoral Area 'D') 1996
- 4. Pineview (Electoral Area 'D') 2007
- 5. Upper Fraser-Willow River (Electoral Area 'F') 1996
- 6. Crooked River-Parsnip (Electoral Area 'G') under development

The Community Plans have comparable Objectives and Policy statements regarding industrial development in the Electoral Areas outside of the City of Prince George, in addition to site specific land use designations. Generally, they are as follows; but as this is a summary of objectives and policies from several OCP's, please refer to the applicable Community Plan or the Regional District for greater detail and certainty.

2.1.1 <u>Industrial OCP Objectives</u>

- To promote a strong and stable regional economy by providing for industrial land requirements to accommodate the needs of new or expanding industrial activities that augment existing industrial development.
- To promote the objectives of the <u>Prince George Area Industrial Land Study</u> through industrial land use designations in this Plan and in consultation with the public and other agencies. (Pineview OCP)
- To encourage the continuation of the City of Prince George, Mackenzie and Bear Lake as the primary service, commercial and industrial centres for the region.
- To promote an orderly sequence of future industrial and commercial development compatible with neighbouring land uses and transportation facilities.
- To provide for small scale industrial uses and home based business to encourage local employment opportunities, without contradicting Objective 2.6 iii).
- To recognize that resource extractive industry is often best located in rural areas close to the resource.

2.1.2 Environmental OCP Objectives

- The Regional Board supports the objectives and goals of the Fraser Basin Management Program in improving the Fraser River's environmental quality.
- The Regional Board supports the elimination of health hazards and minimization of air and water pollution by working with the Provincial Ministries responsible, as they relate to land use.

2.1.3 Industrial OCP Policies

Generally, the Regional Board will consider industrial development proposals as follows:

- Heavy Industrial uses are to be considered in areas that are in close proximity to existing
 industry, essential transportation and services in areas that are environmentally sound,
 especially with respect to the Prince George airshed.
- Intermediate Industrial uses are to be considered in areas that are in close proximity to existing industry, transportation, and services. Proposed uses are to have minimal air, ground, or waste water emissions.
- Light Industrial uses in rural areas away from the City of Prince George may be considered on a limited basis for local employment opportunities subject to a Plan amendment.
- Provisions will be made for the accommodation of home businesses throughout the Plan area
- Industrial uses are to be generally located so as to minimize potential conflicts with residential and other established land uses.
- Buffering of industrial lands along the Fraser River and Tabor Creek is to be maintained to ensure that water quality and riparian habitat are protected. Buffering will also be considered where industrial uses are in close proximity to agricultural uses (Pineview).

2.1.3.1 Light Industrial Land Use Policies

Within a Light Industrial designation, the use of land shall be generally limited to:

- Rural and Service Industrial uses including logging/trucking contractors, automobile/equipment repair, household goods repair, greenhouse, nursery, agricultural products processing not including an abattoir, limited resource processing and other like uses. Rural and Service Industrial uses will typically not generate significant air, water or ground contamination; and
- Manufacturing and warehousing/storage uses which are not associated with significant noise levels or emissions to the air, land or water; may include associated sales in conjunction with the use.

2.1.3.2 Intermediate Industrial Land Use Policies

Within an Intermediate Industrial designation, the use of land shall be generally limited to:

- Light Industrial uses;
- Industrial uses that have minimal air, ground, or water emissions, either in the short term
 or cumulatively in the long term, such as logging and forestry industries (sawmills),
 service industries incidental to mineral extraction, primary manufacturing industries,
 beverage industries, machinery industries, electrical and electronic industries.

2.1.3.3 Heavy Industrial Land Use Policies

Within the Heavy Industrial designation, the use of land shall generally be limited to:

- Light and Intermediate Industrial uses;
- Sawmill, planer mill, pulp mill and other timber or wood products processing and manufacturing uses;
- Mining, minerals processing and related industry;
- Other heavy industrial uses including manufacturing, abattoirs, petroleum storage and processing or utility complexes, vehicle and equipment salvage.

2.2 ELECTORAL AREA ZONING

Regional District of Fraser-Fort George Zoning Bylaw No. 833 lists a variety of industrial zones that are listed below, along with the general permitted uses. (For greater detail and certainty, refer directly to the Bylaw and/or Planning Services.)

MI-Rural Industrial Zone: Logging/Trucking Contractor

Auction Yard, Equipment and/or Livestock

Farm and Logging and Trucking Equipment Repair

Farm Equipment Dealership and sales

Residential-Single Family

Homecraft Millsite

MIA-Rural Light Industrial Zone: Heavy Equipment Dismantling and Sales

Storage/Warehouse Facility

Homecraft

Residential-Single Family

M2-Service/Light Industrial Zone: Farm, Logging and Trucking Equipment Repair

Industrial Parts and Equipment Manufacture and Repair

Electronic Components Manufacture

Key-lock/Card-lock Fuel Sales Works Yard

vvorks yard Truck Stop

Vehicle Bodywork and Mechanical Repair

Storage/Warehouse Facilities Residential-Single Family

Forestry Complex

M3-Resource/Heavy Industrial Zone: Sawmill

Wood Products Manufacture and Processing

Bulk Fuel Storage Plant

Utility Complex

Salvage/Wrecking Yard

Farm, Logging and Trucking Equipment Repair Servicing Industrial Parts and Equipment Manufacture and Repair

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Electronic Components Manufacture Key-lock/Card-lock Fuel Sales

Works Yard Truck Stop

Vehicle Bodywork and Mechanical Repair

Residential-Single Family

M4-Resource/Heavy Industrial/

Residential Zone:

Sawmill

Wood Products Manufacture and Processing

Bulk Fuel Storage Plant

Utility Complex

Residential-Single Family

M5-Agricultural Industry Zone: Farm Supplies Centre

Commercial Greenhouse Intensive Agriculture

Meat/Produce Processing and Sales

Commercial Feedlot Slaughterhouse Agriculture

Residential-Single Family

Homecraft

M5A-Limited Agricultural Retail Zone: Agricultural Retail

Residential-Single Family

Bulk Fuel Sales

M6-Service Industrial Zone: Vehicle Bodywork and Mechanical Repair

Household Goods/Appliances Servicing

Second Hand Store

Furniture/Wood Product Manufacture and Repair

Residential-Single Family

Homecraft

M7-Mineral Resource Processing Zone: Mineral Resource Processing

Residential-Single Family

Agriculture

M8-Industrial 8 Zone: M2 zone plus

Residential-Single Family Wood Products Manufacture

M9-Industrial 9 Zone: Residential-Single Family

Residential-Two Family Residential-Multi-Family Logging/Trucking Contractor Equipment Repair and Servicing

M10-Industrial 10 Zone: Land Farm Treatment Facility

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The above list of zones have been developed to accommodate and manage industrial uses that have been common to the area. It is not exhaustive and can be amended in accordance with the needs of specific industries that may not be adequately accommodated. Existing industrial lands are discussed in Section 3.0 and noted on the Appendices' maps.

2.3 PROVINCIAL AGRICULTURAL LAND RESERVE

The Agricultural Land Reserve (ALR) is a provincially applied and administered land use regulation applied generally to all lands in British Columbia with a Canada Land Inventory agriculture capability classification of 5 or better (i.e. Classes 1 through 5). An application is required for all non-agricultural development proposals as is defined by the *Agricultural Land Commission Act* and associated Regulations. Lands affected by the ALR are depicted on the maps in the Land Profile Appendices.

The ALR is administered by the Agricultural Land Commission for the Province of B.C. The Regional District of Fraser-Fort George has an agreement with the Land Commission that effectively delegates all ALR land use and subdivision decisions to the Regional Board for proposals that are consistent with the Official Community Plans. This delegation does not include exclusion of (taking out) land from the ALR. Fraser-Fort George is the only B.C. local government with this delegated authority.

Therefore, despite lands being located within the protective confines of the ALR, if they are designated for development in the Regional District's Official Community Plans, they may be considered for approvals consistent with the Plan, with due consideration to the potential impact on agriculture by the local Regional District Board of Directors.

The Agricultural Land Commission has provided comments as to their interests in the ALR portions of the sites considered in this Industrial Profile. Those comments have been incorporated into the individual site sections and have helped in the formulation of the Summary, Conclusion and Recommendations section.

2.4 CROWN VERSUS PRIVATE LAND

The Industrial Profile has identified and provided a preliminary evaluation of several sites in the area. These analysis apply to the sites generally, both Crown and private, and could be applied to adjacent properties as well, except that the regulatory limitations are property specific. The Agricultural Land Commission comments apply specifically to those portions of site that are located within the ALR. OCP designations and zoning regulations are typically property specific. However, there are some conceptual 'circle' designations in the OCP that can be interpreted as applying to the area in general.

Where there are lands in the profile that are privately owned, their availability for development is dependent on the land owner. It is possible that they could be made available for a quicker development, or not at all. Crown Lands have a process that needs to be followed before the lands can be made available for public sale. Typically, ILMB requires a maximum three-year sales horizon for newly created Crown parcels to be sold. Therefore, there needs to be a clear demand to make a strong business case before new crown lots are placed on the market.

The Northern Development Trust (NDI) and the ILMB of the Crown are working towards a program that would see identified potential development lands in the hands of local government

for quicker disposition. In the meantime, highly rated sites should begin the ILMB disposition evaluation process as soon as possible.

3.0 EXISTING INDUSTRIAL LANDS

It is not the intent of the Industrial Land Profile to do an analysis of currently available industrial land as this has already been addressed by the City of Prince George's Industrial Land Study and Landcor's evaluation for Northern B.C. on behalf of the Northern Development Initiative Trust (NDIT). Existing and available industrial land for development should be included in the ongoing inventory of industrial land in and around the City of Prince George.

The Landcor study, August 2007, looked at occupied and vacant industrial lands including Crown, Crown Leases, municipal, privately owned and corporate ownership. Landcor did its study using information from the BC Assessment Authority's data base. It covers Northern B.C. from 100 Mile House to Fort St. John and Prince Rupert to Valemount.

Landcor found that there was a total of 13,590 acres of industrial land between the City of Prince George and its surrounding Electoral Areas. Of this, 3,981.2 acres (78 properties) were found to be vacant; 3,530.6 acres in the Electoral Areas and 450.6 acres within the City. The report went on to then exclude Crown leases, municipal and large corporate owned parcels from the inventory because they were either being used or were not deemed to be readily market available for development.

In Northern B.C., generally there was 33,942 acres (491 properties) available for development, representing 2.7% of the entire industrial land base. Of that, 95% of the vacant developable land is one acre or less in size. Throughout the north, there is very little large acreage industrial land available. The Prince George area has six vacant parcels over 10 acres in size, two in the City and four outside. In total, there were eleven vacant privately owned parcels in the City and eight in the Electoral Areas for a total of 19 parcels accounting for 208 acres.

The Landcor study concludes that "there is not enough vacant industrial land within the Northern Transportation Corridor of B.C. to support a significant manufacturing development initiative." (page 55). The Study also notes that industrial land in the North is generally 10% of the cost of land in the lower mainland, providing an extremely attractive incentive to new industry.

The City of Prince George conducted an analysis utilizing Eric Vance and Assoc. and McElhanney Consulting Services Ltd., for a Background Paper on its industrial land lease as part of its Official Community Plan review. The paper was completed in September 2007.

The industrial land analysis recognized the Community Plan had grouped lands into the two categories of Major and Light industrial land designations. Major being heavy industry requiring at least 25 ha (61.8 acres) and Light industry being all other industry that typically requires full city and water services.

"The OCP designates a total of 2,384 ha (5,890 acres) of land for industrial use in the City, of which 50.3% (1198 ha/2860 acres) is for major industry and 49.7% 1136 ha (2931 acres) is for light industry." (page 23). The Study notes that not all land designated for industrial use is zoned for that use. The study focuses on light industry noting new heavy industry is generally encouraged to locate outside of the City's airshed.

The study identifies under utilized lands that are difficult to redevelop to higher usage, as well as vacant lands that are ready for development. The Study notes that there is little readily developable land available and there is a need for such if the City is to take advantage of the newly arising opportunities related to the transportation enhancements in the North. The Study goes on to recommend potential locations within the City for expanding light industrial uses, with an emphasis on protecting or enhancing air quality.

4.0 INFRASTRUCTURE AND UTILITIES

The identification of available infrastructure to service potential industry is important such that identified weaknesses can be targeted for improvement. Conversely, identified strengths can be used as a basis to attract appropriate industries to the area. The Omineca Beetle Action Coalition (OBAC) is developing several development strategies for the North, including one on infrastructure that will be applicable to the Industrial Profile.

4.1 ELECTRICITY (DETAILS BEING VERIFIED)

The main 500 kV transmission lines from the Peace River hydro power generation runs north/south through the region, paralleling Highway 97. Overhead hydro (500 kV and 138kV) runs along the Highway 16 West corridor from Prince George to Prince Rupert. There is 3-phase power to the east in the Upper Fraser area that was used to service sawmilling capacity, but there is not a larger supply that generally extends that way.

The Hart North, Shelley, Prince George Airport South and Stoner sites all are in close proximity to the large Peace River transmission lines and are also within local distribution areas. Isle Pierre and Clear Lake benefit from the western transmission and distribution systems.

BC Hydro supplies the power throughout the Province of B.C. and is responsible for managing power consumption. BC Transmission Corporation owns the hydro infrastructure, or 'assets', in British Columbia and supplies industry users with hydro infrastructure.

New Infrastructure – BC Hydro and BC Transmission Corporation builds new infrastructure and lines where there is residential and industry demand. End-users requiring 59 kV power and less (residential and smaller industry) deal with BC Hydro. Industry requiring 60 kV power and above must deal with the BC Transmission Corporation.

BC Hydro and BC Transmission Corporation note that it is quite difficult to provide quotations for industrial connections to parcels identified as potential future industrial sites. Costs to install infrastructure varies and is dependent upon criteria such as: access, industry types, required load, power consumption, distance the power line is from the connection point, etc.

There are also options to reduce costs for line connections include utilizing or providing a new circuit from an existing sub-station, and possibly locating an industrial area closer to an existing sub-station. Industry may also purchase power at the transmission level and install their own substation to step down the power. This option allows the purchase of power at a cheaper rate from BC Hydro.

The Appendices are to contain information on the availability of 3-phase power to the existing vacant and potential future industrial lands in the study area. All properties have potential access

to 3-phase power. In all cases, the availability of 3-phase power should be confirmed with BC Hydro directly.

4.2 RAILWAY

With the purchase of the BCR by CN Railway, CN now provides seamless service from every direction to and from Prince George. To the west, it follows the Highway 16 corridor to Prince Rupert. To the east, it follows the Fraser River through the Robson Valley and McBride to Edmonton, south to Vancouver and north to Fort Nelson and Tumbler Ridge and northwest to Stikine.

CN has recently completed rail yard improvements in Prince George to be able to handle the container traffic that is now flowing from the Prince Rupert port.

Railway Sidings

Industry looking to locate in the area may request that a siding be built. CN is to contacted for cost estimates in providing rail sidings.

Site Preparation Requirements – Cost to be paid for by Client: (This work is required to be completed prior to installing infrastructure)

- Firm, level rail bed to the right grade
- Rail bed has to hold a locomotive
- Needs to be positioned on a good clay and rock base
- Steel, ballast, track, ties
- Installation of Main-Line Turnout/Switch/Heater

The costs for the main-line turnout installation may be waived for clients with large volume thresholds (ie: several national locations) that enter into a long-term shipping contract with CN.

4.3 TELECOMMUNICATIONS (INFORMATION BEING VERIFIED)

Public telecommunications infrastructure in the study area is provided by companies such as Telus, Navigata Communications, Rogers and Bell Communications, ABC Communications and Shaw Cable. Other communication networks, mainly towers, have been built in the study area to support local private businesses and educational institutions, such as BC Hydro, the Canada Broadcasting Corporation, and 9-1-1 Emergency Services.

Companies, such as Telus, provide backbone telecommunications networks across northern British Columbia. This is done by either strategically placed tower locations and/or fibre-optics networks located across the north. Through the Federal BRAND Initiative (Broadband for Rural and Northern Development), this backbone network creates opportunity for businesses to purchase fibre in order to provide internet services to more rural and remote areas.

Public telecommunications coverage in the District includes a variety of digital and analog cellular services, wireless off air and satellite and ADSL (Asymmetrical Digital Subscriber Line) high-speed internet, and cable internet services. Cellular and wireless internet service is widely available within most developed parts of the study area. However, broadband internet is only available in some of the Electoral Areas outside of Prince George currently. New technology and initiatives of telecommunication companies are increasing the coverage areas.

4.4 NATURAL GAS

Natural gas transmission through the study area is by Spectra Energy Corp., formerly of Duke Energy. Natural gas distribution is handled by Terasen Inc.

Sites that are within Terasen's existing distribution network include Price George Airport South, Shelley #1 and #2 and Willow Cale. Hart North and Stoner are on, or close to, the Spectra transmission line. Clear Lake and Isle Pierre do not currently have access to natural gas.

Costs to install natural gas is dependent upon where the industrial parcel is located, required load, and distance the line has to run from the current infrastructure. Differing industrial load requirements dictates the size of the line and pressure required to run natural gas to the parcel site.

Terasen can provide rough estimates for installing natural gas based upon identified potential industrial parcels and industrial load requirements.

The appendices contain information on the availability of natural gas to the potential future industrial lands in the study area. In all cases, the availability of natural gas should be confirmed with Terasen directly.

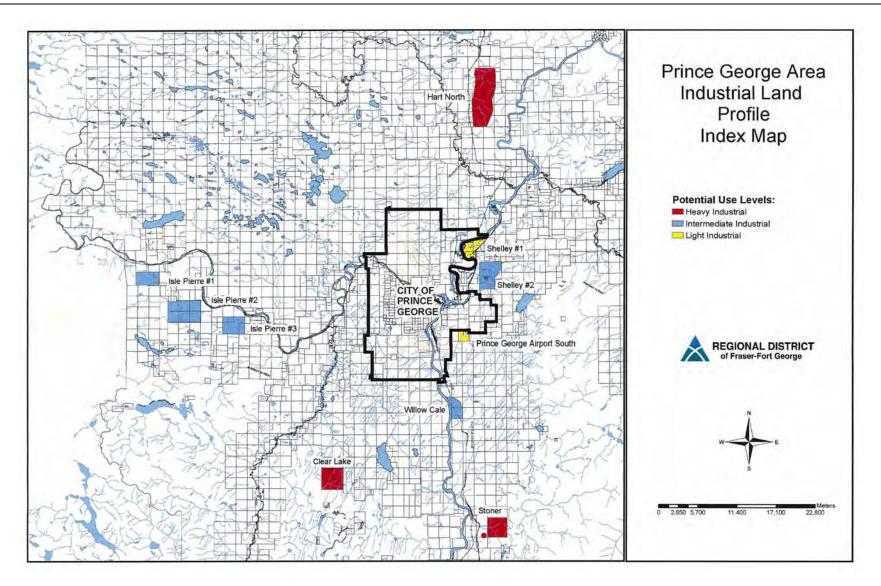
4.5 ROADS

Outside of Prince George the Ministry of Transportation (MoT) is responsible for establishing and implementing road design and construction standards for public roads. The MoT plays a role in ensuring that industrial activity does not have an unacceptable impact on the existing road infrastructure and that unsafe situations are not created. The MoT typically becomes involved with industry at the subdivision, rezoning, and access approval stages.

The MoT is the subdivision approval authority in the Regional District. At the time of subdivision approval, the MoT ensures that new lots are serviced by a road and that the existing road network can support the traffic generated by the new development. The MoT may require new roads and/or improvements to existing roads as a condition of subdivision approval.

Where land requires rezoning for an industrial use, the application is referred by the Regional District to the MoT to comment on road related issues. The MoT must approve all rezoning within 800 metres of controlled access highway and may require new road and/or improvement to existing roads as a condition of rezoning approval. The Regional District may also require improvement to existing roads as a condition of rezoning approval.

When a new business is established, that business may require a new Access Permit from the MoT. As part of the process to issue the Access Permit, the MoT will indicate the design of the new access, or the improvements required to the existing access to accommodate the vehicle traffic generated by the new use.



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1. Clear Lake: Site Summary Heavy Industry

20 Kilometres South of Prince George – Blackwater Road

Clear Lake is located 20 kilometres south of the City of Prince George off the Blackwater Road. There is little residential development in the vicinity of this site. There is a sawmill at Clear Lake and there is a Youth Corrections Facility located 5 kilometres south of the site at Hudta Lake. Baldy Hughes is being redeveloped as an addiction healing centre.

There is no surface water source located on or near this site and it is not known if there is a subsurface source which would be able to supply enough water for a large-scale water dependent industry. The Blackwater Road and the main road into the Clear Lake Sawmill provide good access to this site. The access to the Clear Lake Sawmill is private and can not be assumed to be available to access other properties without discussions with the owners of the mill. Given the terrain in the area, it appears that there would be very little difficulty in building a new access if one was required.

There is three phase power to the Clear Lake Sawmill site. BC Hydro would need to determine if this service could be extended or if an upgrade to the system would be required.

There is natural gas service to the Clear Lake Sawmill site. Terasen Gas would need to determine whether it has the capacity to handle additional loads. If the line were not capable of servicing the site the closest mainline would be to the north within the boundaries of the City of Prince George.

The Agricultural Land Reserve affects a small portion of this site. Approval would have to be received from the Agricultural Land Commission should lands within the ALR be proposed for industrial purposes. The site is within the Provincial Forest; therefore, an exemption or exclusion would be required.

There is no railway mainline or spur line within 20 kilometres of the site. From a topographic perspective, the lands between the site and the nearest rail line to the north along the Nechako River are relatively flat. As there is a significant distance to extend rail from the current main lines, as well as physical impediments such as highway use and the Fraser River, it is unlikely that rail access will be extended to this area.

Due to its location and distance from existing watercourses it is felt this site will have little impact on watersheds. Industry will need to drill on-site wells to accommodate domestic and operational water supply requirements. Acquirer characteristics are unknown.

The site has mixed forest with relatively high wildlife values. The existing mill, roads and old logging have caused some detrimental impacts, but it would still be better to further develop this location rather than initiate a development at a new location in largely a wilderness setting. There are 2 or 3 small streams through the site but it is not known if they are fish bearing. There are fish downstream on St. George Creek. There are also a few smaller wetlands that may be environmentally sensitive.

SITE: CLEAR LAKE

1. General

a. Location: 20 kilometres south of Prince George
 b. Area Extent: 400 – 800 hectares (1000 – 2000 acres)

c. Parcel Size(s): As neededd. Ownership: Crown Land

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 5 to 7 (Canada Land

Inventory)

b. Terrain: Does not appear to be severe topographical

impediments

c Access to Water: Unknown

3. Transportation

a. Controlled Access Highway No. 16 – 20 km via Blackwater Road

b. Prince George International Airport (YXS) 40 km

4. Services

a. Electricity: Phase 3 to Clear Lake Sawmill

b. Natural Gas N/A

c. Water: Groundwater unknown

d. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Chilako River-Nechako

Official Community Plan – (RDFFG): "Heavy Industrial" and "Agriculture-

Resource" (Amendments 6 months)

b. Zoning Bylaw No. 833 (RDFFG)

Rural 2 (Ru2); Rural 3 (Ru3) and

Heavy Industrial (M4) Rezoning (4 months concurrent @

OCP)

c. Agricultural Land Reserve: Mostly outside ALR

d. Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns: TBA

f. 2007 Property Taxes: \$24.37/\$1000 Major Industrial land & building value

g. Provincial Forest status: Totally withinh. First Nations: L'heidli Tenneh

i. Liquid waste:

up to 22,700 \(\) domestic sewage/day: Northern Health Authority over 22,700 \(\) waste/day: Ministry of Environment

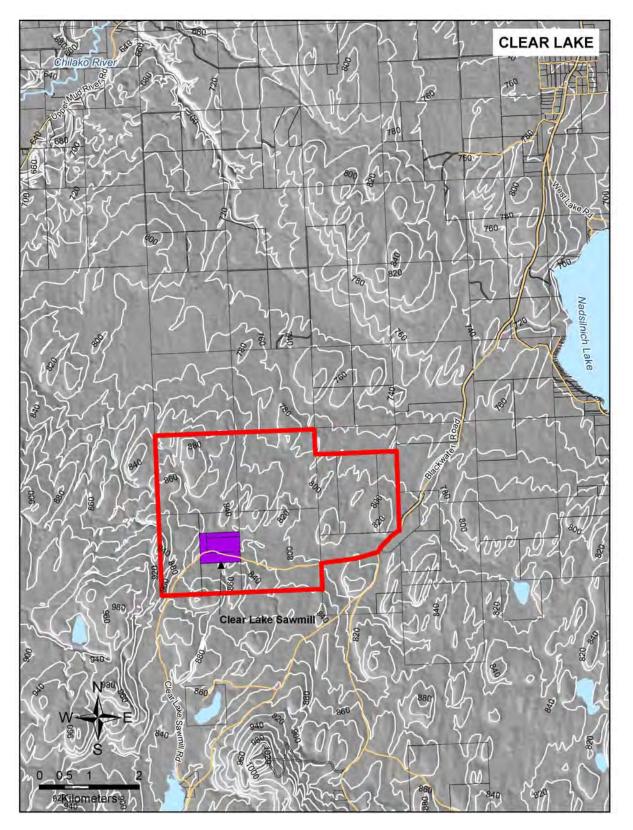
6. Environmental/Socio Sensitivity

a. Noise levels: No close residences, existing sawmillb. Airshed: Outside of the Prince George airshed

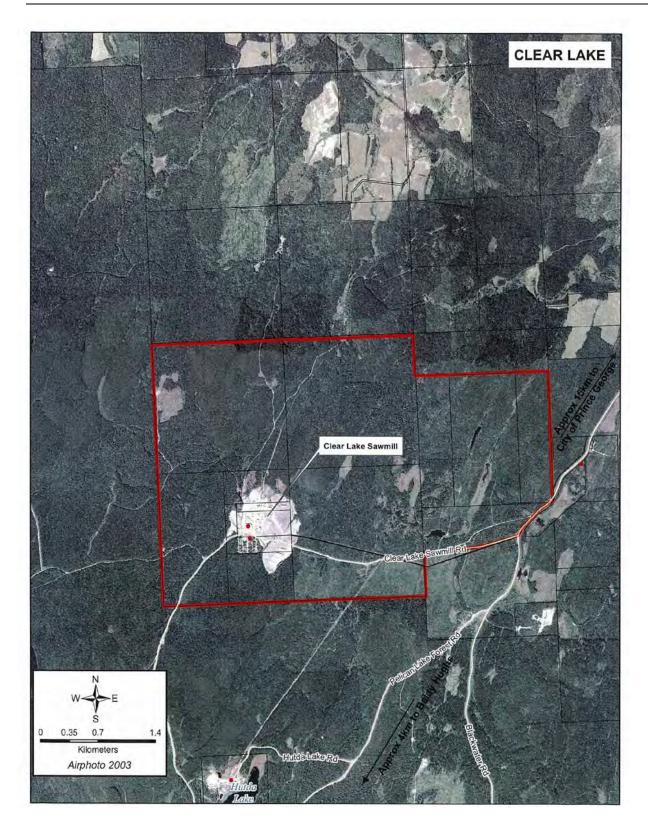
Prevailing winds, TBA Groundwater unknown

c. Water: Grou

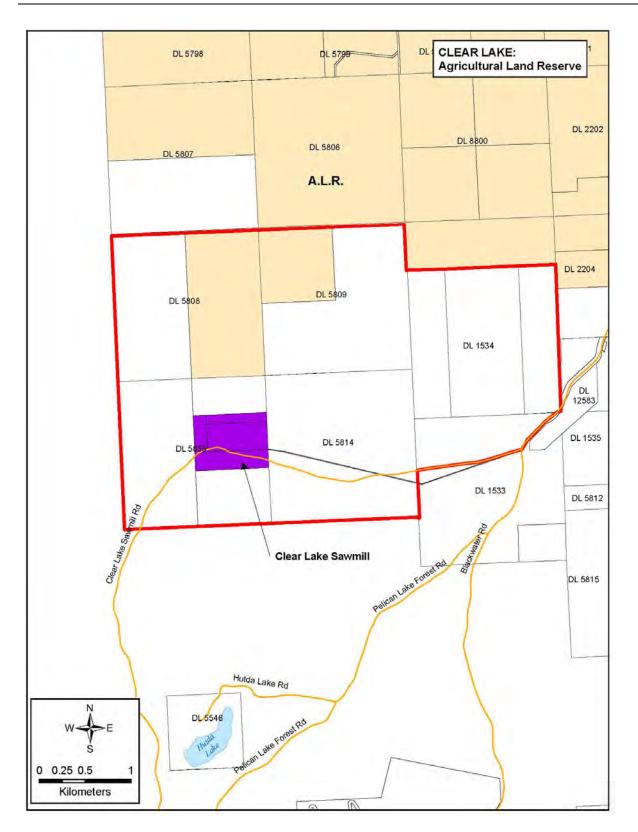
e. First Nations: L'heidli Tenneh
f. Proximity to residences: 8 kilometres (5 miles)
g. Traffic impacts: Blackwater Road



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2. <u>Hart North: Site Summary</u> <u>Heavy Industry</u>

30 Kilometres North of Prince George – Highway 97

This site is located approximately 30 km north of central Prince George and is situated between the Hart Highway 97 North and the Canadian National Railway (CNR).

There is the potential to service this site with water from either the Fraser River or the Salmon River. The Salmon River lies approximately 1 to 2 km to the west of the site while the Fraser River lies approximately 3 km east of the site. There is 70-100m elevation change between the site and both the Fraser and Salmon Rivers. Thus the actual servicing of this site with water should not be a significant challenge. Similarly the issue of liquid waste disposal should not create substantial issues. The site has areas which will be able to accommodate detention areas for wastewater.

The Canada Land Inventory rates Agricultural capability on the site as 20% Class 5 and 80% Class 7 with stoney soil deficiencies. There are some areas with varying degrees of grade change, however these should not provide a deterrent to the development of the site. These changes in grade are minimal and take place over large distances. Most of the southern portion of the site is not located within the Agricultural Land Reserve. The Agricultural Land Commission, in discussions for the 2008 Official Community Plan, does not object to this industrial designation.

Some of the site is located within the Provincial Forest, which would require amendment during the Crown Land disposition process.

This site is accessed directly from Highway 97 or from the Salmon Valley Forest Service Road which bisects the area. The Forestry Road is well maintained and is in good condition year round.

The major 500KV Hydro line runs east of the property and there is a substation within 1km of the site. It may be possible to tie into this substation to supply the site with power.

There are two natural gas main transmission lines immediately to the east of the site. These gas lines would be able to accommodate the service demands of an industrial user. The mainline capacity is unknown, however with the proximity to the site it may be reasonable to assume that the site can be serviced with natural gas from this mainline.

The CNR passes along the west portion of the site at a grade which will make railway extension into the site relatively easy. There does not appear to be any topographical constraint which would limit the extension of a spur throughout this site. The Integrated Land Management Bureau of the Province of BC has secured approval from the Agricultural Land Commission for a line extension into the potential industrial area.

This site is located on a plateau and as such reduces the potential for inversions and calm air conditions to cause pollution build up. Hart North is the best all round industrial site in the Prince George area.

This site was identified 30 years ago in the China Steel Study as the most suitable site for Heavy Industry within the region, and has ever since been identified in local long term plans for Heavy Industrial uses.

SITE: HART NORTH

1. General

a. Location: 30 km north of Prince George

b. Area Extent: 30 sq.kms. (3000 ha)
c. Parcel Size(s): Varied as needed
d. Ownership: Crown Provincial

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 5 to 7 (Canada Land Inventory)

b. Terrain: Minimal Grade issues

c Access to Water: Groundwater wells unknown

3 km to Fraser River

3. Transportation

a. Controlled Access Highway No. 97

b. C.N. Railway – level grade access

North to Peace River and Alberta

- South to Vancouver, Prince Rupert, Alberta via Prince George

- Northwest to Fort St. James and beyond

East to Tumbler Ridge and to Alberta via Prince George

c. Prince George International Airport (YXS) 30 km

4. Services

a. Electricity: Phase 3(TBA)

Sub Station 2 kms(TBA)

b. Natural Gas 30in. & 36in. transmission pipelines 1 km

c. Oil Transmission pipeline 1kmd. Water: Groundwater wells unknown

Fraser River 3 km

e. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Crooked River Parsnip

Official Community Plan – (RDFFG): "Heavy Industrial" and "Agriculture/Resource"

(Amendments 6 months where necessary)

b. Zoning Bylaw No. 833 (RDFFG)

Rural 2 and Rural 3: Requires Rezoning (4 months concurrent @

OCP)

c. Agricultural Land Reserve: Partially within, but supported by Land

Commission

d. Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns:

f. 2007 Property Taxes: \$24.29/\$1000 Major Industrial land & building value

g. Provincial Forest status: Partially within

h. First Nations: McLeod Lake Indian Band (Treaty 8)

i. Liquid waste:

up to 22,700 ℓ domestic sewage/day: Northern Health Authority over 22,700 ℓ waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Located between CNR mainline and Hart

Highway No. 97

b. Airshed: Outside of the Prince George Airshed

Prevailing winds, TBA

c. Water: TBA d. Wildlife: TBA

e. First Nations L'heidli Tenneh

f. Proximity to residences: Summit Lake community 6 to 14 km north

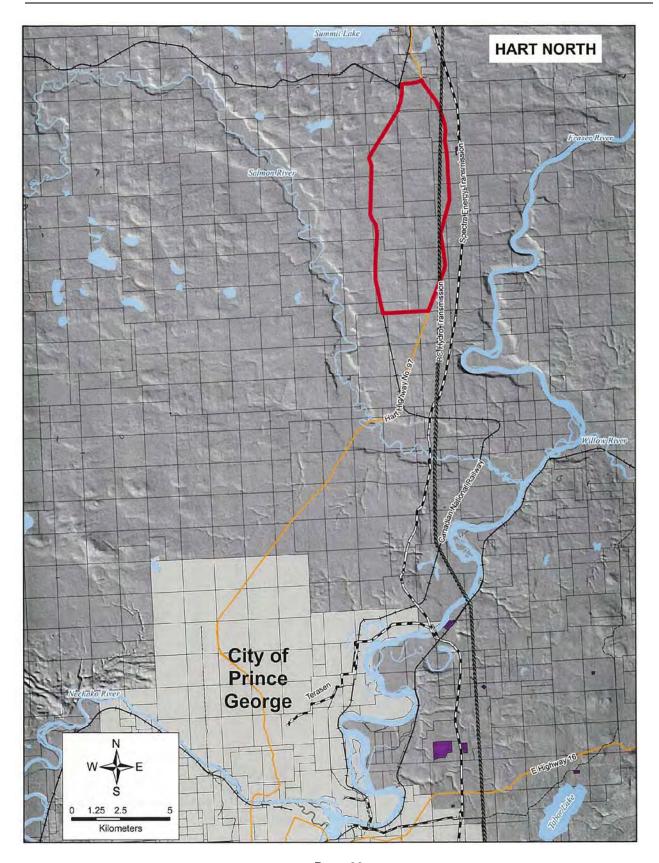
Salmon Valley community 5.5 to 13.6 km

south

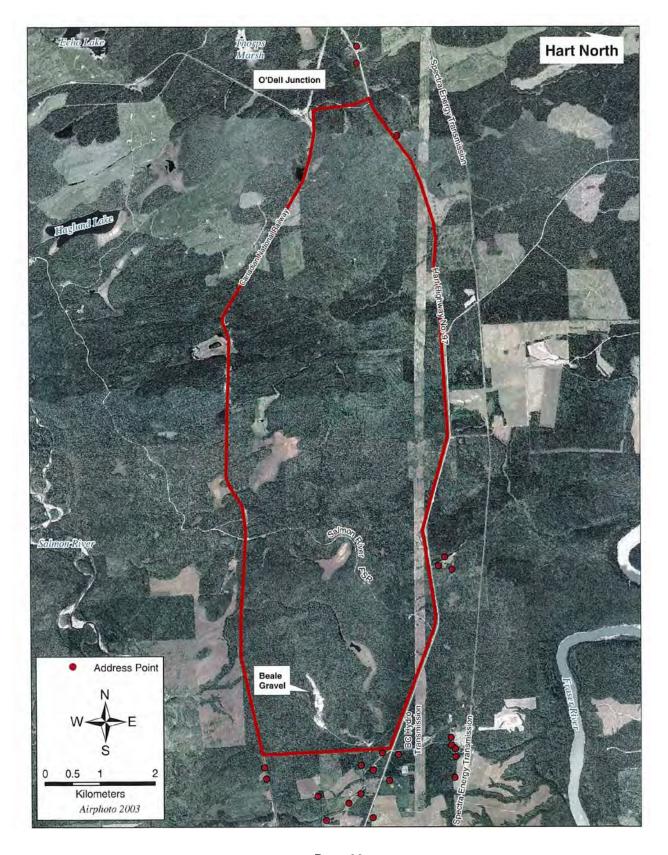
Residences with 1 km: North: 1

East: 3 South: 12

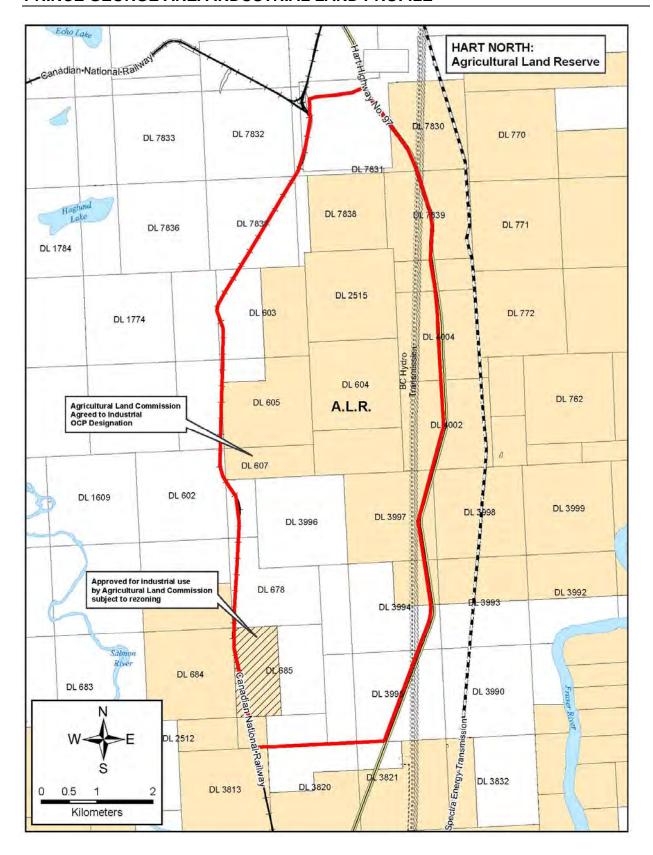
g. Traffic impacts: Direct access to Highway 97 available.



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3. <u>Isle Pierre: Sites Summary</u> <u>Intermediate to Heavy Industry</u>

45 Kilometres West of Prince George – Highway 16

These three sites are relatively isolated from residential or agricultural development thereby reducing the potential for conflict with those land uses. However, the proximity to the salmon bearing Nechako River, upstream from the City of Prince George's domestic water well source, and water level fluctuations are sensitivities that would need to be addressed prior to consideration of development.

There are clearly large developable sites in all three of the potential industrial areas considered with Canada Land Inventory agricultural soil capabilities ranging from class 4 to 7. There are also some topographically challenging portions of the sites as well.

The Isle Pierre Road off of Highway 16 West Services these properties located two to five miles north of the Highway. The Forest Service Road also accesses the sites.

There is three-phase power to the existing Isle Pierre Canfor Sawmill, but the ability to extend or upgrade is subject to BC Hydro. The Pineview substation is located 60 kilometres away and is of a residential service standard. The City of Prince George would be the closest industrial grade gas line location.

The central and westerly sites are not within the Agricultural Land Reserve, but a portion of the easterly site is affected. Therefore, if that portion of the easterly site is to be developed, approval from the Agricultural Land Commission will be required. The ALC notes that the area does not appear to have been used for agriculture. To be used industrially, it would need to be shown that no other location is feasible.

These sites have a mixed forest of deciduous and coniferous forests, which contribute to the wildlife diversity. As any development would be into a largely wilderness setting, the relative impacts on wildlife/biodiversity will need evaluation. On site fisheries concerns are low, but off site impacts on the Nechako River may very well be a consideration and a restriction on type of development that might be possible.

These sites are outside of the Prince George airshed thereby alleviating the potential impact from emissions. The main environmental concern would be proximity to the Nechako River which is salmon bearing and leads to the main domestic water source for the City of Prince George.

SITE: ISLE PIERRE

1. General

a. Location: 45 km west of Prince Georgeb. Area Extent: 3 sites over 1000 acres each

c. Parcel Size(s): As needed

d. Ownership: Crown Provincial

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 5 to 7 (Canada Land Inventory)

b. Terrain: Gradual slopes generally

c Access to Water: Nechako River 1 to 2 kilometres

3. Transportation

a. Controlled Access Highway No. 16 – 5 to 7 km via Isle Pierre Road – Industrial std. Existing Forestry roads to Isle Pierre Sawmill

b. C.N. Railway – 0.5 kilometres

West to Prince Rupert

East to Prince George and Alberta

- South via Prince George to Vancouver

c. Prince George International Airport (YXS) 55 km

4. Services

a. Electricity: Phase 3 to the Isle Pierre Sawmill

b. Natural Gas N/A

c. Water: Groundwater unknown

1 to 2 kilometres to the Nechako River

d. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Chilako River-Nechako

Official Community Plan – (RDFFG): "Agriculture-Resource" (Amendments 6 months)

b. Zoning Bylaw No. 833 (RDFFG)

Rural 2 (Ru2) Requires rezoning (4 months concurrent @

OCP)

c. Agricultural Land Reserve:
 d. Environmental requirements:
 2 of the 3 sites not affected by the ALR
 Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns:

f. 2007 Property Taxes: \$24.37/\$1000 Major Industrial land and building value

g. Provincial Forest status: TBAh. First Nations: TBA

i. Liquid waste:

up to 22,700 \(\) domestic sewage/day: Northern Health Authority over 22,700 \(\) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Located close to CNR mainlineb. Airshed: Outside of the Prince George Airshed

Prevailing winds, TBA

c. Water: Nechako River important salmon bearing and

upstream from the City of Prince George's

domestic water well system

d. Wildlife: TBA

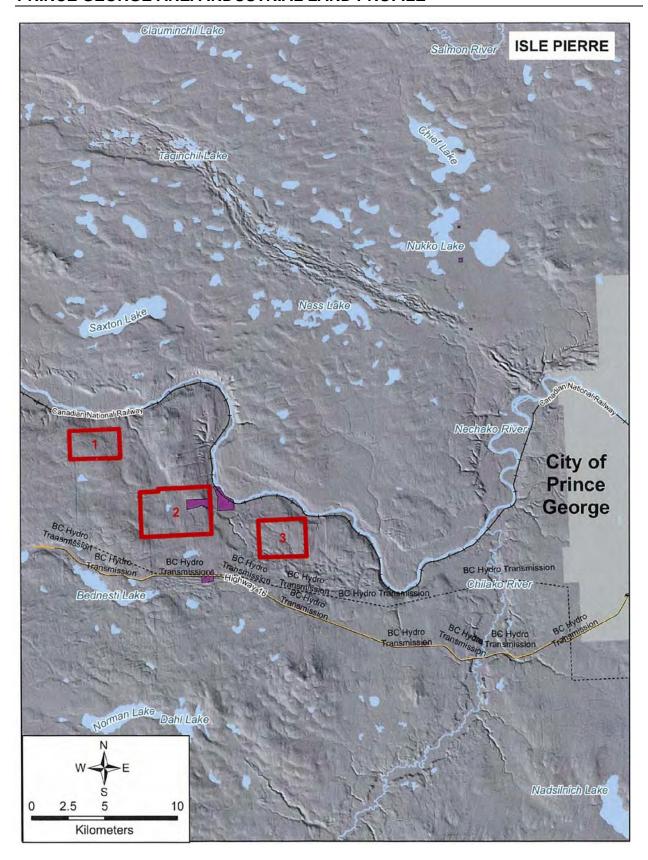
e. First Nations:

f. Proximity to residences: TBA

g. Traffic impacts: Isle Pierre Road currently used for access to

Isle Pierre Sawmill. Significant traffic increases may require impact study of

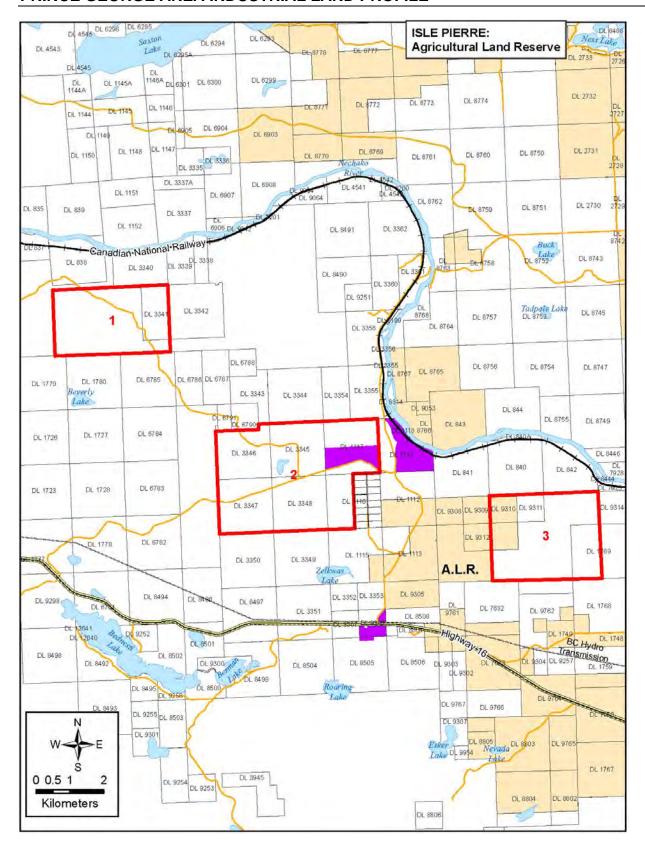
Highway 16 intersection.



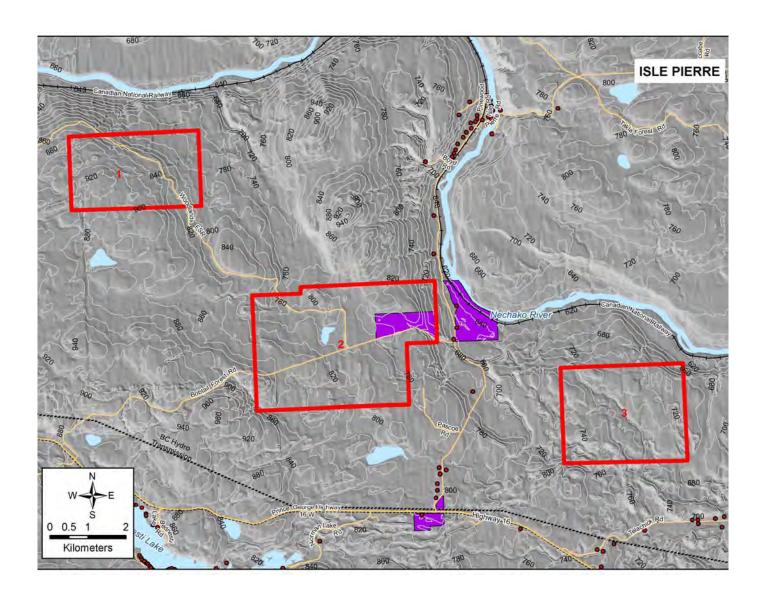
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4. Prince George Airport South: Site Summary Light Industry

This area is immediately south of the Prince George International Airport (YXS) and is a combination of Crown Provincial lands and private land. Because of its proximity to the airport, the Prince George airshed and the community of Pineview, the most appropriate use of these lands would be for light industry/service commercial airport related uses.

The Crown land portion of the site land is located within the Agricultural Land Reserve (ALR) and requires approval from the Agricultural Land Commissions (ALC) to develop. However, it is already surveyed into 2-hectare parcels, located next to the Pineview settlement and the Prince George International Airport thereby significantly depreciating its value for potential agricultural use. Further, the City of Prince George is proposing adjacent serviced light industrial uses in it Community Plan review, subject to concurrence by the ALC.

The private and Airport Authority held lands are designated for Light Industrial use within the Official Community Plan. The Crown land portion is currently designated for Rural Residential use and would require an amendment to accommodate industrial use.

The CNR North/South mainline is located 3 kilometres west of the site and would need to be brought up a significant grade to access the site. The site is serviced through truck and air transportation. The potential for a new direct access to Highway 97 would be desirable both as a new entrance to the airport and to draw traffic away from the Pineview residential community.

There is existing hydro electricity servicing the Pineview community, the Airport, and the Danson Industrial Park 1.5 kilometres west of the site within the City of Prince George. The general area is serviced with natural gas and there is a transmission line located 3 kilometres east of the site.

Fish and wildlife values/impacts are yet to be determined.

This area is best suited to light industry only. Development of the site should include buffering provisions to the rural residential uses to the south in Pineview.

The Province of B.C. is currently (May 2008) carrying out land analysis including geotechnical, timber cruise and appraisals and may consider marketing this land in the future, likely as unserviced land within the Regional District outside of the proposed serviced light industrial land within the City.

SITE: Prince George Airport South

1. General

a. Location: Adjacent to the City of Prince George and YXS Airport

b. Area Extent: Approximately 350 hectares (860 acres)
c. Parcel Size(s): 2 hectares (5 acres) to 65 hectares (160 acres)
d. Ownership: Crown Provincial, Private, Airport Authority

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 2 to 7 (Canada Land Inventory)

b. Terrain: Generally flat with 2 minor stream gullies

c Access to Water: Unknown

3. Transportation

a. - Controlled Access Highway No. 97 (3 km)

- Ellis Road to Highway 97

- Johnson Road to Old Cariboo Highway

b. C.N. Railway - 3 km

c. Prince George International Airport (YXS) 1.0 km

4. Services

a. Electricity: Established distribution system; Pineview substation 6.5 km
 b. Natural Gas Established distribution system; transmission line 3 km

c. Oil N/A

d. Water: Groundwater – TBA 4 km to the Fraser River

e. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Pineview

Official Community Plan – (RDFFG): Crown lands: "Rural Residential"

Private and Airport Authority lands: "Light

Industrial"

b. Zoning Bylaw No. 833 (RDFFG)

Rural 1 (Ru1) and Rural 3 (Ru3) Requires rezoning (4 months +)

c. Agricultural Land Reserve: Private land recently excluded from the ALR;

all other lands need application

d. Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns: TBA f. Crown Land Development Policy: TBA

g. 2007 Property Taxes: \$23.03/\$1000 Light Industrial land & building value

h. Provincial Forest status: N/A

i. First Nations: L'heidli Tenneh

j. Liquid waste: Onsite

up to 22,700 \(\) domestic sewage/day: Northern Health Authority over 22,700 \(\) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Next to YXS International Airport - runway

being extended

b. Airshed: Within the Prince George airshed

c. Water: Minimal stream activity

d. Wildlife: TBA

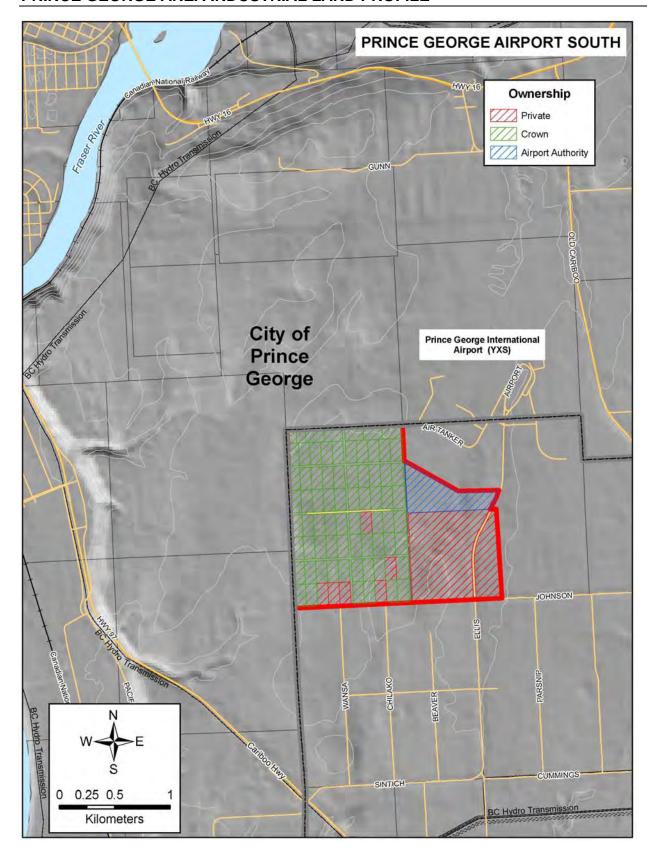
e. First Nations: L'heidli Tenneh

f. Proximity to residences: Adjacent to Pineview Rural Residential -

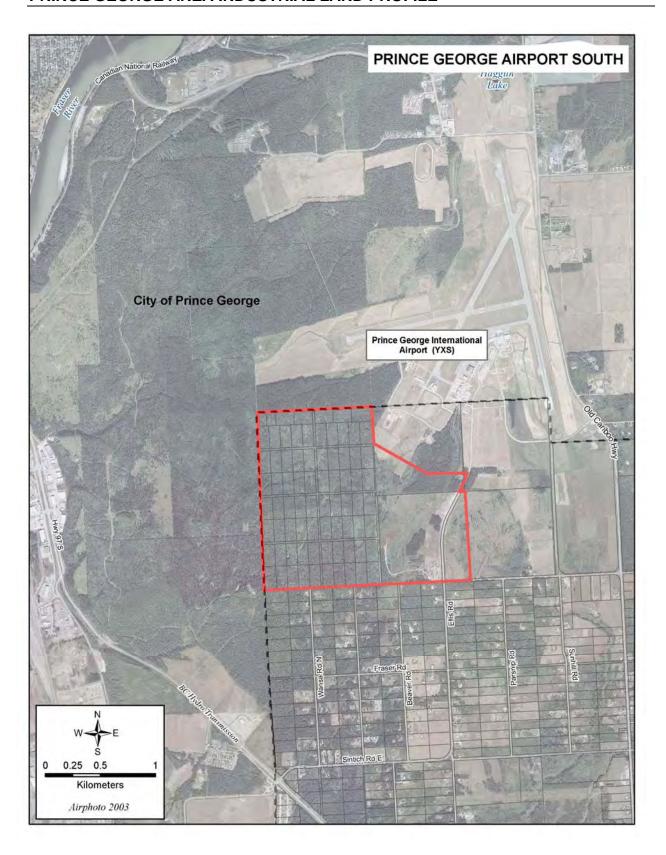
buffer recommended

g. Traffic impacts: Ellis and Johnson Roads,

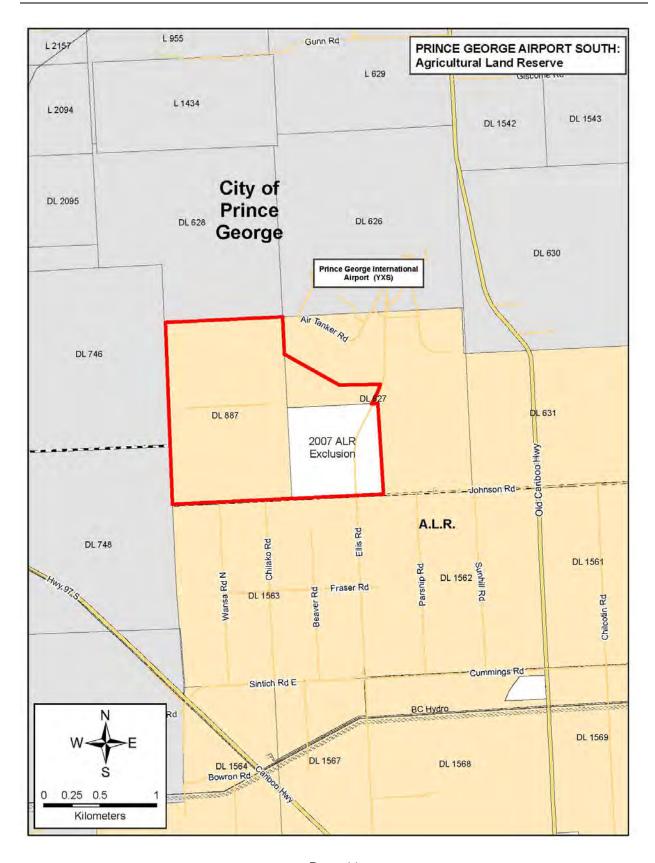
may need new access to Highway No. 97



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5. Shelley #1: Site Summary Light Industry

15 Kilometres from the City of Prince George – Shelley Road

This site lies directly across the Fraser River from the City of Prince George, and is approximately a 15 kilometre drive by public road from the City limits. A portion of the area has served as a large log sort yard. It is a combination of private ownership and crown land.

The site is on the left bank of the Fraser River and is flat throughout. This area lies one to two metres below the Fraser River 200 year floodplain. The Fraser River has the capacity to provide any size industrial operation with sufficient water for its operational requirements.

The Canada Land Inventory rates soils on this site as 70% Class 2 and 30% Class 7 agricultural capability with excess ground water problems. However, as the property is within the floodplain and is significantly fractured with back channels and the CN railway, its agricultural feasibility may be significantly compromised. The property is in the Agricultural Land Reserve. Approval from the Agricultural Land Commission will be required to use lands within the ALR for Industrial purposes. The ALC has stated that it would be opposed to the industrial use of the site.

There is a CN rail line located immediately adjacent to this site and there are no grade or topographical constraints to providing this site with an on-site spur line.

The site is located approximately 15 kilometres from the City of Prince George via Highway 16 and Shelley Road. All roads accessing this site are paved and are maintained by the Ministry of Transportation. Proposed industrial uses and their magnitude will dictate the possible need to upgrade Shelley Road in order to accommodate heavy industrial traffic.

There is existing hydro service to the site, which should be able to accommodate the demands of an industrial use. This capability needs to be confirmed. Canfor (Northwood) Pulpmill is located directly across the Fraser River from this site so it can be assumed that there is the potential to extend an hydro industrial service to this site from either Shelley Road (former sawmill site) or from the Canfor side of the Fraser River.

This site has access to a natural gas mainline. It is not currently known if this gas line can accommodate the needs of an industrial user.

This site has high fish and wildlife values and concerns. The area is mostly riparian habitat with old back channels of the Fraser River. Originally dominated by cottonwood/spruce forest, it has been partly logged (private land) and now has second growth. Nonetheless, it is still very important wildlife habitat for moose, deer, bears, furbearers and a wide variety of the species including osprey, ducks, grouse, and hares. The back channels are fish habitat and two small streams in the area are also high valued fish streams. The proximity of the railroad, the community of Shelley, logging roads, and the rail line through the site has impacted the area. Being in the valley bottom, there will be major concerns with any air emissions as it is within the City of Prince George airshed which is already subject to substantive industrial emissions.

This site is located in the immediate vicinity of one of the largest heavy industrial uses in the Prince George Region. It has been identified as having poor dispersal capacity for air pollutants. The access to

this site requires significant travel along Shelley Road which is a predominately residential road and this in itself may be an issue for local residential impacts and also the possible costs associated with upgrading Shelley Road to accommodate heavy industrial traffic.

Conclusion

Although this site has the necessary attributes to accommodate all levels of industrial development there are some influencing factors which detract from utilizing this site for an industry which is either emission producing or high industrial traffic generating. The combination of being within the Fraser River 200-year floodplain, being within the Agricultural Land Reserve, high fish and wildlife values and its compromised location in the valley bottom in an area with poor air pollutant dispersion capacity, lead to this site being a poor overall candidate for industrial development in the near future. It should, therefore, be eliminated from further consideration.

SITE: SHELLEY #1

1. General

Location: Immediately east of Prince George (15 kilometres by road) a.

Area Extent: Approximately 450 hectares (1100 acres) b.

64 hectares (160 acres) to 174 hectares (430 acres) Parcel Size(s): C.

Ownership: Private and Crown land d.

2. **Physical Characteristics**

Soil type/quality: Agricultural capability classes 2 to 7 (Canada Land Inventory) a.

Flat with river back channels b. Terrain:

Access to Water: Fraser River immediately adjacent С

3. **Transportation**

a. - Controlled Access Highway No. 16 (9 km)

- Shelley Road to the site (9 km)

C.N. Railway - East/West mainline (0 km) b.

Prince George International Airport (YXS) 15 km by road C.

4. **Services**

Electricity: Phase 3 to former Shelley Sawmill and across River a.

Natural Gas Gas distribution within vicinity b.

C. Oil N/A

d. Water: Groundwater - shallow

Adjacent to the Fraser River

Liquid Waste disposal: Onsite e.

5. Regulations/Policies

Willow River a.

> Official Community Plan - (RDFFG): "Agriculture-Resource" under review

> > (Amendments 6 months)

Zoning Bylaw No. 833 (RDFFG) b.

> Rural 2 (Ru2) Requires Rezoning (4 months concurrent @

> > OCP)

Within the ALR – requires application c. Agricultural Land Reserve: d.

Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns: Within

f. 2007 Property Taxes: \$25.47/\$1000 Light Industrial land & building value

Provincial Forest status: N/A g.

First Nations: L'heidli Tenneh h.

Liquid waste: i.

up to 22,700 \(\) domestic sewage/day: Northern Health Authority over 22,700 \(\) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Close to existing heavy industry
b. Airshed: Within the Prince George airshed
c. Water: Within Fraser River 200 year floodplain

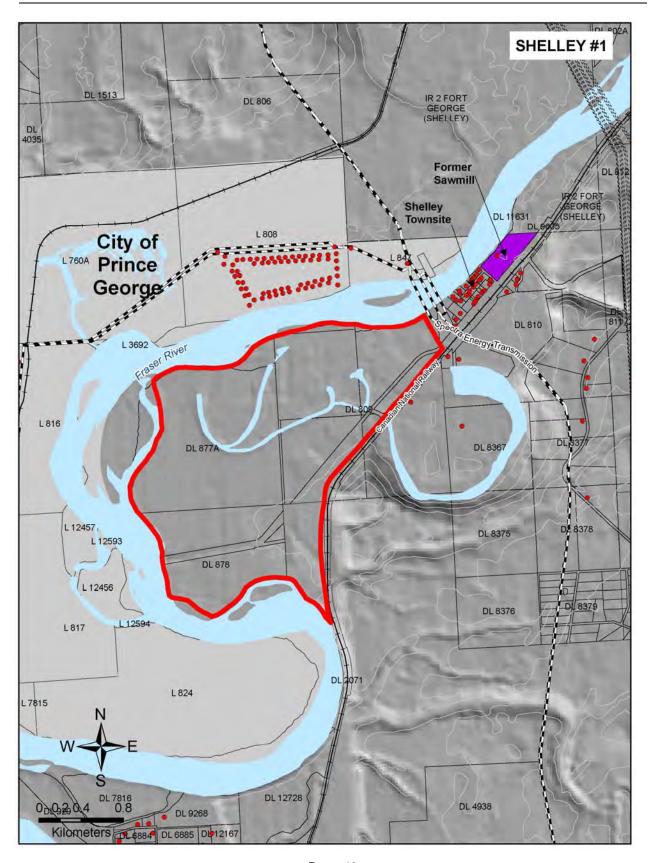
(1 to 2 metres below)

d. Wildlife: TBA

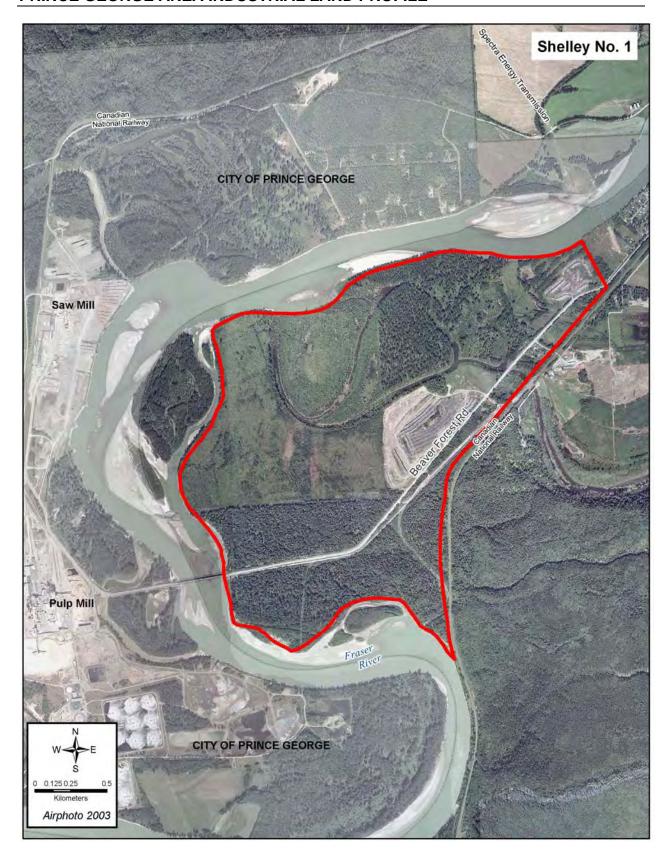
e. First Nations: L'heidli Tenneh

f. Proximity to residences: Shelley Community 2 kilometres

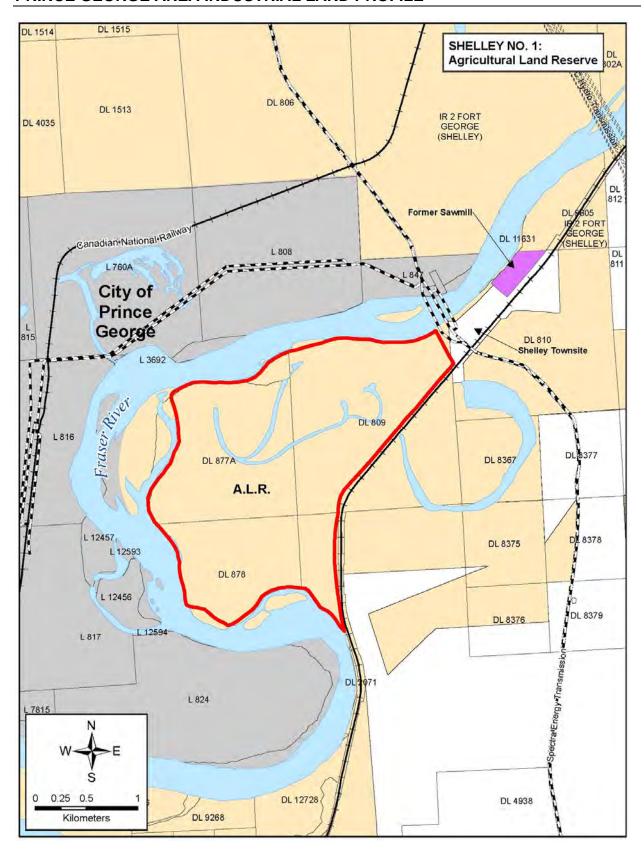
g. Traffic impacts: Shelley Road access may need upgrade



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6. Shelley #2: Site Summary Light to Intermediate Industry

East of Prince George – Shelley Road

Shelley #2 is located immediately east of the City of Prince George. The site is 7 kilometres by road from the City boundary and is located west off of Shelley Road. This site has the potential to accommodate light industrial uses. Because of its proximity to the City of Prince George, further analysis is required regarding potential elevated emission point sources before it could be considered for potential intermediate industrial uses. The site itself is relatively removed from residential development, however, there may be a potential future impact on the north side of the site where there is rural residential subdivision that is not yet occupied.

The City of Prince George's sludge lagoons are located centrally in the site, as is a former small Regional District landfill site.

The Canada Land Inventory Agricultural capability rates soils on the site as 70% Class 2 with adverse climate problems and 30% Class 7 with excess ground water problems. Further investigation is required.

The Fraser River lies 1 to 2 kilometres to the west of the site. There is considerable grade change between the site and the Fraser River, approximately 75 metres (250 feet). The disposal of waste water should not present a problem as the site appears to have the ability to retain waste water on site.

The majority of the grade change in this property occurs on the west side where the CN railway line is located next to the Fraser River. Extension of a rail spur line into the site would likely have to come from the north. Alternatively, an access road could be constructed to navigate the western grade down to a rail load out site.

It is not known if the existing hydro service to the site can accommodate industrial uses and if so to what extent. There are both hydro main transmission lines and a natural gas pipeline running through this site.

This site is not affected by the Agricultural Land Reserve. No approval from the Agricultural Land Commission is required to develop this site.

This area has good wildlife values although lower than most other sites in the Profile. Mixed forest still makes this area favourable for moose, deer, bear, other species. Starbaby and Bittner Creeks both have fish values and these will have to be protected. Developments and roads have compromised the wildlife values on and adjacent to this site so it is seen as a site with lower overall concerns with regard to additional industrial developments.

The air modelling study for potential dispersion characteristics of ground level wood waste burning done by B. Ainslie and P. Jackson of UNBC indicates that the Shelley #2 site should be considered as being within the Prince George airshed, thereby deterring potential ground level emission generating industry. Further analysis is required on whether high elevated emissions may be acceptable.

SITE: SHELLEY #2

1. General

a. Location: Immediately east of the Fraser River and the City of Prince

George

b. Area Extent: Approximately 1040 hectares (2560 acres [4 mi²]

c. Parcel Size(s): Varied as neededd. Ownership: Unsurveyed Crown land

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 4 to 5 (Canada Land Inventory)
 b. Terrain: Generally flat with some intervening stream gullies. Elevation

above City of Prince George proper

c Access to Water: Fraser River 1 to 3 km

3. Transportation

a. - Controlled Access Highway No. 16 (1-2 km)

- Shelley Road (paved)

b. C.N. Railway - .5 to 2 km

c. Prince George International Airport (YXS) 10 km

4. Services

a. Electricity: Power distribution in area

b. Natural Gas Available

c. Water: Groundwater – TBA

1 to 3 km to the Fraser River

d. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Willow River

Official Community Plan – (RDFFG): "Agriculture-Resource" (Amendments 6 months)

b. Zoning Bylaw No. 833 (RDFFG)

Rural 3 (Ru3) Rezoning (4 months concurrent @ OCP)

c. Agricultural Land Reserve: N/A

d. Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns:

f. Crown Land Development Policy:

g. 2007 Property Taxes: \$25.47/\$1000 Light Industrial land & building value

h. Provincial Forest status: Partially within i. First Nations: Lheidli T'enneh

j. Liquid waste:

up to 22,700 \(\ell \) domestic sewage/day: Northern Health Authority over 22,700 \(\ell \) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels:b. Airshed: Within the Prince George Airshed

Prevailing winds, TBA

c. Water: Fraser River

d. Wildlife: TBA

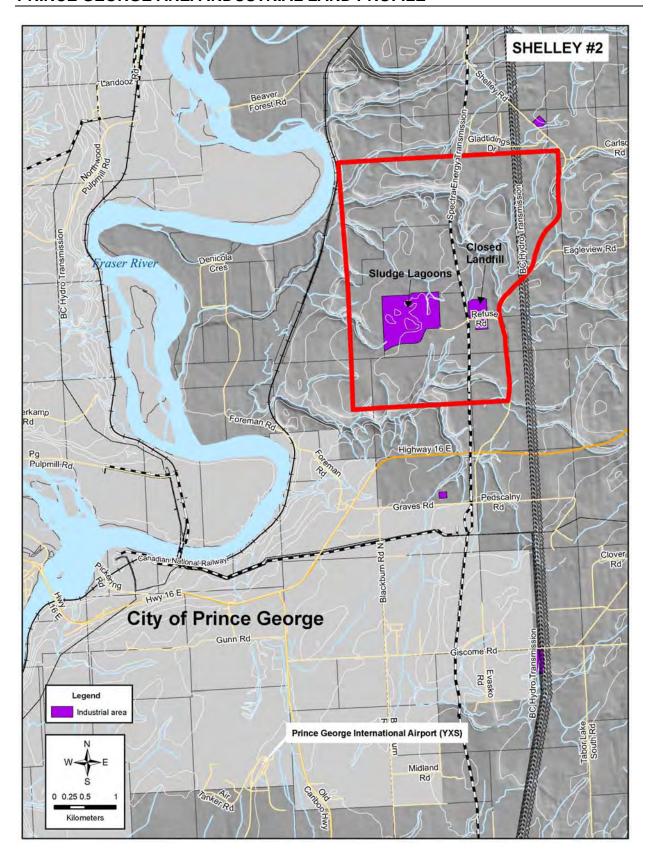
e. First Nations: Lheidli T'ennehf. Proximity to residences: 1 to 4 Kilometres

g. Traffic impacts: Shelley Road upgrade may be needed for heavy

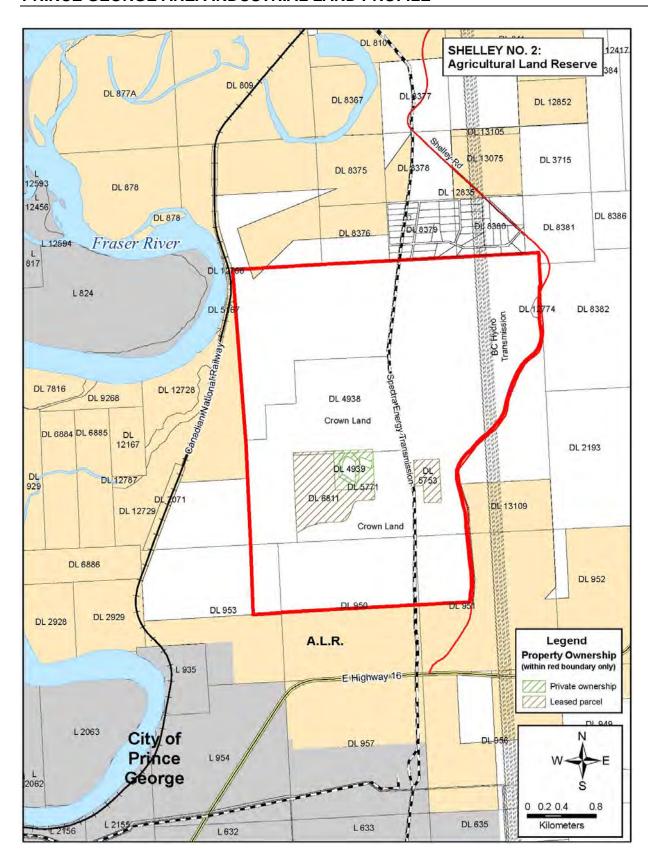
traffic



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7. Stoner: Site Summary Heavy Industry

35 Kilometres South of Prince George – Highway 97

The Stoner site is 35 kilometres south of the City of Prince George, 2 kilometres east of Highway 97 and 3 to 4 kilometres east of the Fraser River.

The site is elevated approximately 200 metres above the community of Stoner. There is approximately 360 hectares (900 acres) that is an elevated plateau above Highway 97 and the CNR mailine. The westerly portion of the site has a steep grade making road access a challenge and direct rail access likely not possible unless it is brought in from the north. There is an old railway grade along the west side of the site that may be useable for a new rail siding. There is an existing Forestry road accessing the site and the site is located within the Provincial Forest.

BC Hydro's main transmission lines are located 1 kilometre west of the site, but the current closest main substation is located in Pineview, 22 kilometres (14 miles) north. There is a natural gas transmission pipeline through the western side of the site.

The site does have relatively high wildlife values within the mixed forest, therefore development could likely have some significant impacts. Much of the terrain is relatively broken and rough with soil stability challenges next to Stone Creek and its tributaries. Stone Creek itself has good fisheries values. An environmental/geotechnical evaluation would be required.

The site is outside of the Prince George Airshed and is not within the ALR. It should be able to accommodate major industrial uses from an air dispersion point of view. However, further study on the potential for downwind streaming impacts on communities further away may be necessary.

Conclusion

While this site has several natural attributes for industrial development, its elevation challenges would indicate that it should not be the highest priority area for short-term development.

SITE: STONER

1. General

a. Location: 35 kilometres south of Prince George

b. Area Extent: Approximately 120 hectares (300 acres) and

240 hectares (600 acres)

c. Parcel Size(s): as needed

d. Ownership: Crown Provincial

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 5 to 7 (Canada Land Inventory)

b. Terrain: Steep grades (8% +) to access from Westerly side;

elevated plateau at 820 metres above sea level. Access from

north needed to lower grades

c Access to Water: Unknown

3. Transportation

a. - Controlled Access Highway No. 97 (2 km)

- Existing Forestry roads from Highway 97

b. C.N. Railway - 1 kilometre west

c. Prince George International Airport (YXS) 30 km by road

4. Services

a. Electricity: Parallels Hwy. 97 Lower Mainland Transmission Lines/.0 km

Pineview substation (22km)

b. Natural Gas Transmission pipeline adjacent to site

c. Water: Groundwater – unknown

3 km to the Fraser River

d. Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Tabor lake-Stone Creek

Official Community Plan – (RDFFG): "Agriculture-Resource" (Amendments 6 months)

b. Zoning Bylaw No. 833 (RDFFG)

Rural 3 (Ru3) Rezoning (4 months concurrent @ OCP)
c. Agricultural Land Reserve: N/A

d. Environmental requirements: Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns: High Values

f. Crown Land Development Policy: TBA

g. 2007 Property Taxes: \$32.72/\$1000 Major Industrial land & building value

h. Provincial Forest status: Within

i. First Nations: L'heidli Tenneh

j. Liquid waste: onsite

up to 22,700 \(\) domestic sewage/day: Northern Health Authority over 22,700 \(\) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Elevated site above Stoner Communityb. Airshed: Outside the Prince George airshed

Prevailing winds, TBA

c. Water: Stone Creek, 1 to 3 km to Fraser Riverd. Wildlife: High values, impactable by development

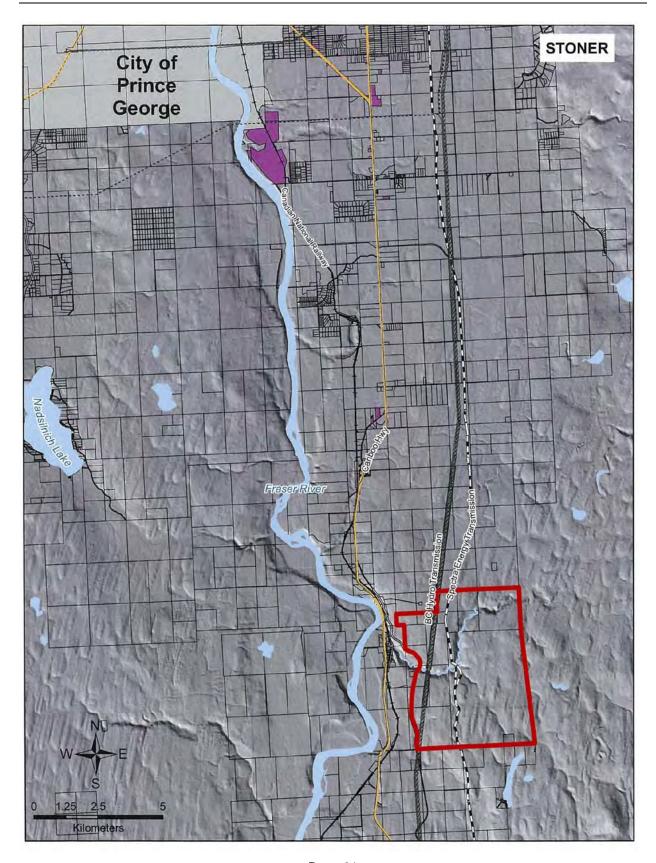
Stone Creek fisheries values

e. First Nations:

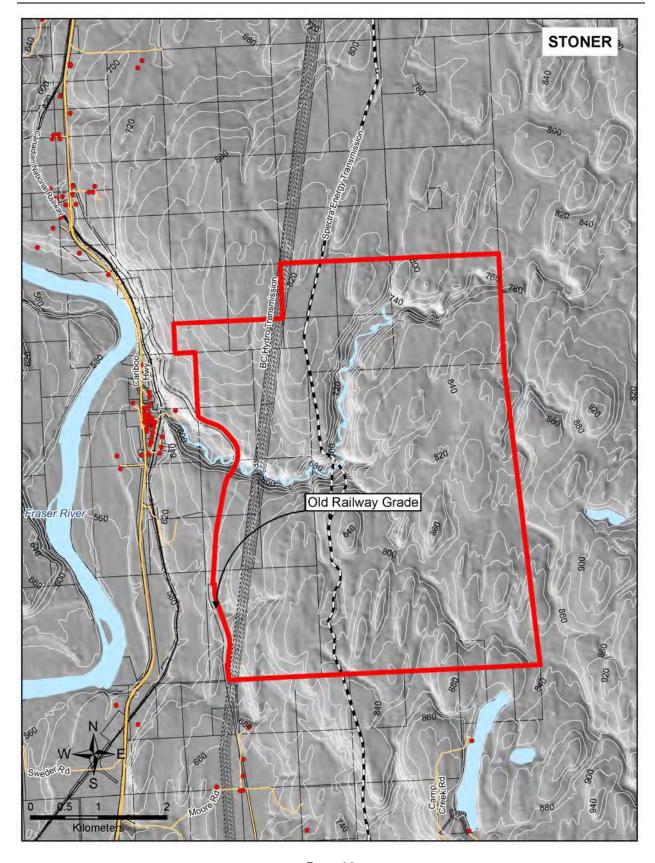
f. Proximity to residences: 2 kilometres

g. Traffic impacts: Turning onto Highway 97 and Railway

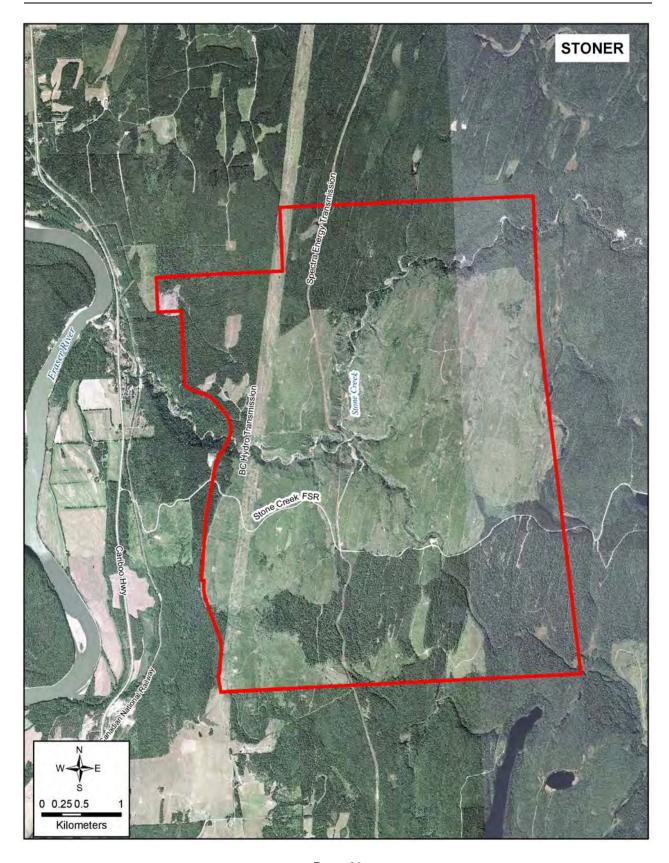
crossing required



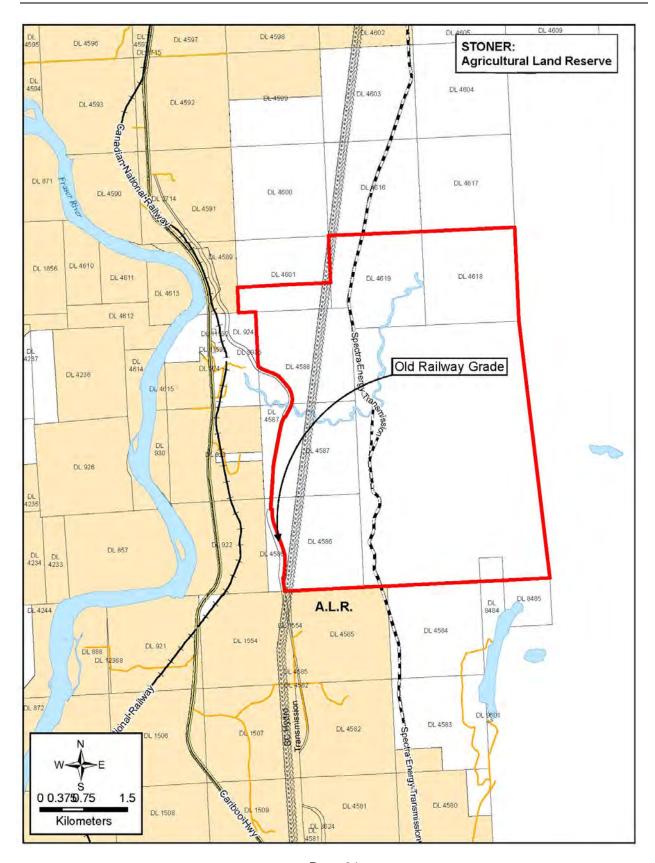
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8. Willow Cale Road: Site Summary Light Industry

Immediately South of Prince George

This site is located just south of the City of Prince George on the Willow Cale Forest Service Road. Rural residential development to the east is on an upper bench. The Willow Cale Road also services industrial uses within the BCR Industrial Park, is an industrial standard gravel road, capable of accommodating industrial development.

This land is under private ownership. This site is completely within the Agricultural Land Reserve. Any application for development requires Agricultural Land Commission approval. However, the site is designated for Industrial use in the Pineview Official Community Plan, the Regional District is able to consider ALR subdivision and non-farm uses, but not proposals to exclude land from the ALR. The Land Commission has endorsed the OCP Industrial designation.

The CNR North/South mainline runs directly through this property and there are no topographical constraints on this site which would inhibit the construction of a spur line to service this site.

There is electrical power already to this site however it is not known what level of use this line could service. There is a natural gas mainline on the east side of the property.

This site has the lowest wildlife values of all the sites in the profile. They are low mostly because of the large amount of existing adjacent development and human settlement. There are no streams on this site although the Fraser River itself has high fisheries values.

This site is an extension of the BCR industrial park within Prince George and it is within the Prince George airshed. New industrial development with air emissions will likely not be acceptable. Airshed impact modelling on this area is needed.

As the site has neighbouring rural residential development in the Damms Road and Sunshine Crescent subdivisions, appropriate setbacks and buffering needs to be taken into consideration at the development stage.

SITE: Willow Cale Road

1. General

a. Location: 2 kilometres south of Prince Georgeb. Area Extent: Approximately 340 hectares (840 acres)

c. Parcel Size(s): 32 hectares (80 acres); 91.5 hectares (226 acres);

52 hectares (128 acres); 160 hectares (400 acres)

d. Ownership: Private

2. Physical Characteristics

a. Soil type/quality: Agricultural capability classes 2 to 7 (Canada Land Inventory)

b. Terrain: No significant issues, parcel dependent

c Access to Water: Fraser River 1 kilometre

3. Transportation

a. - Controlled Access Highway No. 97 (2 to 5 km)

- Willow Cale Forestry Road

b. C.N. Railway - adjacent to the site

c. Prince George International Airport (YXS) 15 km

4. Services

d.

a. Electricity: TBA

b. Natural Gas Distribution system available, transmission line (4 km)

c. Water: Groundwater – unknown
1 km to the Fraser River

Liquid Waste disposal: Onsite

5. Regulations/Policies

a. Pineview

Official Community Plan – (RDFFG): "Intermediate Industrial"

b. Zoning Bylaw No. 833 (RDFFG)

Rural 3 (Ru3)

c. Agricultural Land Reserve: Within the ALR – requires application Provincial Ministry of Environment

Requires rezoning (4 months +)
Within the ALR – requires application Provincial Ministry of Environment

Environment Canada

e. Wildlife concerns: Low

f. 2007 Property Taxes: \$30.16/\$1000 Major Industrial land and building value

\$24.06/\$1000 Light Industry

g. Provincial Forest status: N/A (Private Land)
h. First Nations: N/A (Private Land)

i. Liquid waste: Onsite

up to 22,700 \(\ell \) domestic sewage/day: Northern Health Authority over 22,700 \(\ell \) waste/day: Ministry of Environment

6. Environmental/Socio Sensitivity

a. Noise levels: Extension to existing industrial area;
 b. Airshed: Within the Prince George airshed
 b. Prevailing winds, Northerly & Southerly

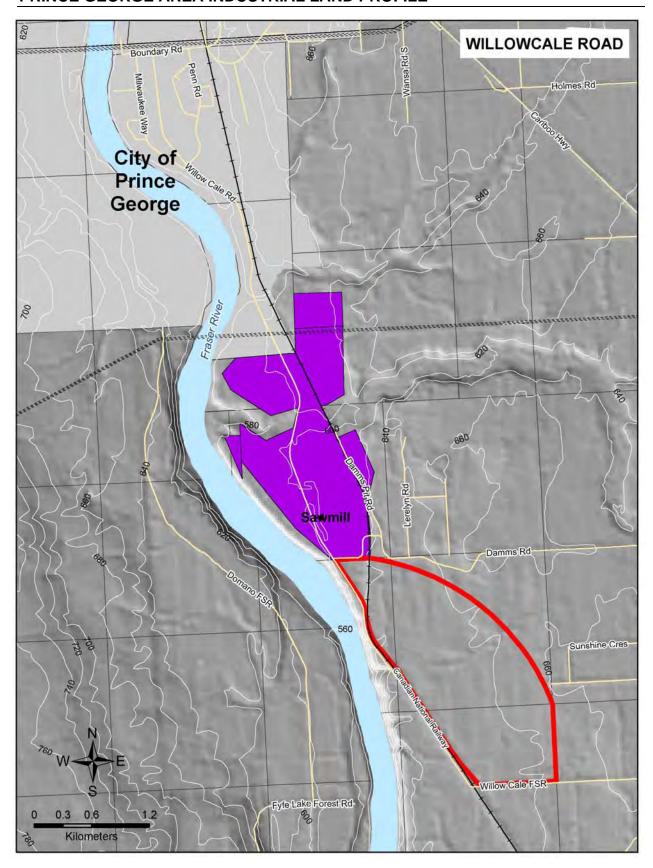
c. Water: Fraser River important salmon habitat

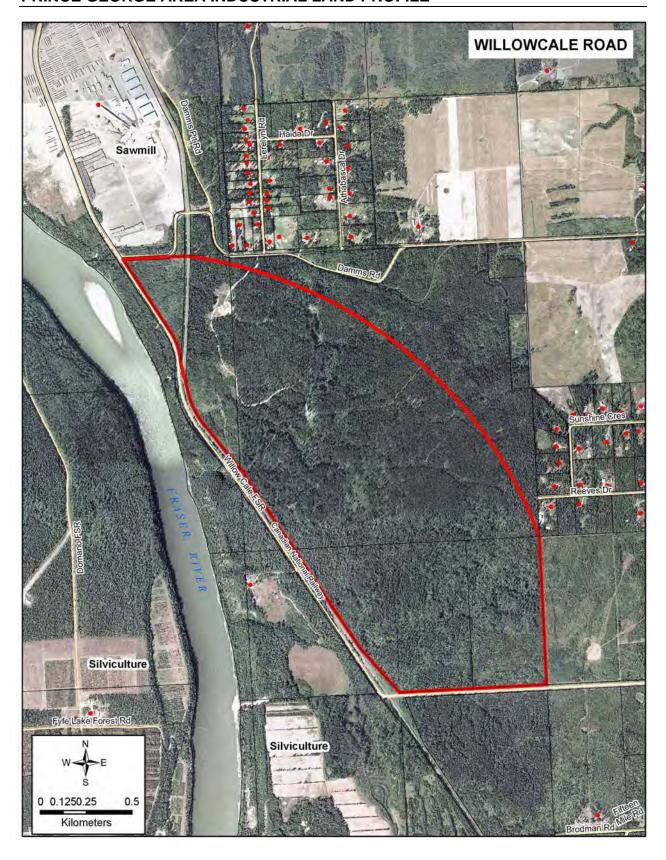
d. Wildlife: Low concern

e. First Nations: N/A f. Proximity to residences: 0 to 2 km

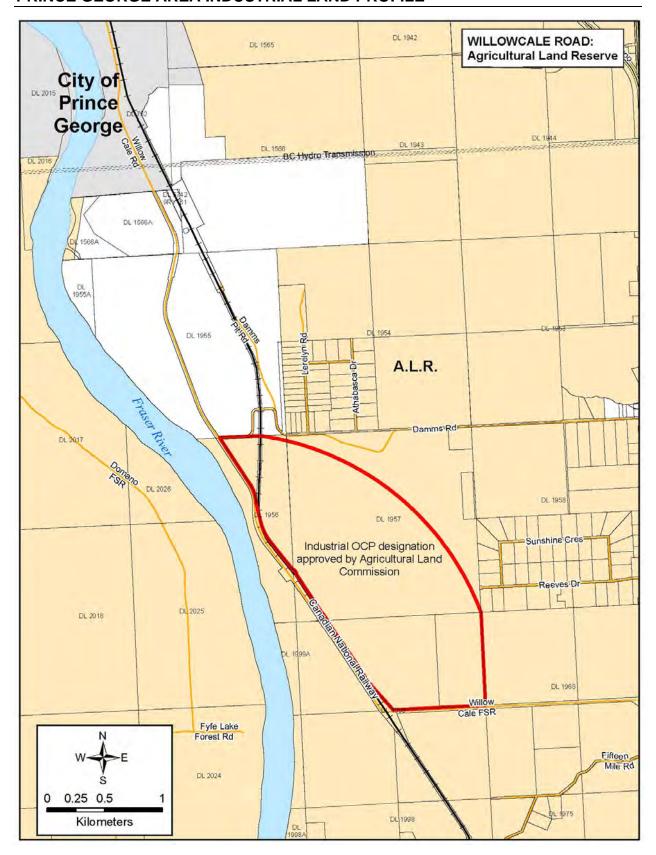
g. Traffic impacts: Willow Cale Industrial Forest Road to

Highway 97





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