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Metro Vancouver 2015 Industrial Lands Inventory: Technical Report

metrovancouver

SERVICES AND SOLUTIONS FOR A LIVABLE REGION

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Executive Summary

The Metro Vancouver 2015 Industrial Lands Inventory (‘2015 Inventory’) provides a comprehensive look at the quantity and quality of industrial lands in the Metro Vancouver region as of mid-2015. It provides information about the amount of land that is developed for industrial activities and identifies industrial lands that are vacant by type of activity, and other land characteristics. This work continues the ongoing monitoring of the region’s industrial land base which commenced in 2005 and supports *Metro 2040* implementation and objectives to protect and intensify industrial lands and provide further analysis of industrial lands issues, such as market readiness and the potential to intensify or redevelop lands.

Metro Vancouver is a high growth region and the protection of industrial land is one of many important regional objectives. Industrial lands are critical to trade and transportation functions that serve Western Canada and also serve as important locations for production and other activities supporting a prosperous and growing regional economy.

In 2005 and 2010, Metro Vancouver completed Inventories of the industrial lands in the region. For both the past Inventories, Metro Vancouver considered only whether the land was ‘Developed’ or ‘Vacant’. The previous binary inventory classification did not reflect the on-the-ground reality that some ‘Developed’ properties are only partially utilized (and have significant redevelopment and intensification potential), nor the fact that some ‘Vacant’ properties may have significant development constraints (or are currently being used for other non-industrial purposes). In actuality, industrial lands have different types of uses, levels of utilization, and (re)development potential due to various site and area factors or characteristics.

The objective for the enhanced methodology in the 2015 Inventory is to create a clear set of rules that can be consistently applied using available information to systematically categorize industrial lands in the Metro Vancouver region. It is important to note that the lands inventoried and amounts reported are <u>gross</u> areas; various types of constraints or limitations as noted will reduce the <u>net</u> developable amount of land.

Inventory Highlights

In 2015, the Metro Vancouver region had 11,331 hectares (28,000 acres) of industrial lands, of which 80% (9,071 ha / 22,414 ac) were 'Developed' and 20% (2,261 ha / 5,586 ac) 'Vacant'. Most of the lands in the 2015 Inventory are located in municipalities in the southern and eastern parts of the region: 23% in Surrey, 16% in Richmond, and 14% in Delta / Tsawwassen First Nation.

In terms of the ‘Vacant’ land in the 2015 Inventory, 3% is used for ‘Resource Extraction’, 2% for ‘Residential’, 1% for ‘Agriculture’, and 11% is undeveloped or fully vacant. These lands will serve as the future supply of industrial lands. However, only 20% of ‘Vacant’ industrial lands are on sites larger than 20 ha (50 ac). The available site size impacts the types of industrial users that can be accommodated.

Nearly half (47%) of industrial lands are categorized within the 2015 Inventory as ‘General Industrial’, a range of industrial uses that are typically building-intensive, along with associated accessory uses. Almost all of these lands (93%) are ‘fully utilized’ (80-100% utilized), which means that there are limited immediate opportunities for intensification given the current building form and use. Nevertheless, as these lands redevelop over the medium and long term, there will be potential to densify and intensify.

In terms of other land use classifications, 12% of industrial lands are used for transportation infrastructure (port, airport, rail), and an additional 10% for 'non-market' industrial functions such as ‘Utilities’ and ‘Oil Tank Farms’. The 2015 Inventory also includes lands with non-industrial uses such as Retail’ (3%) and ‘Commercial’ (3%).

Protection for industrial lands in the region varies, with 91% of the total 2015 Inventory regionally designated as either ‘Industrial’ (68%) or ‘Mixed Employment’ (23%). At the municipal level, 79% is both zoned and designated Industrial. Of the ‘Developed’ industrial lands, most (ranging from 81-92% by consolidated land use classification) are protected with both municipal Industrial designation and zoning. These designations help secure the long-term industrial use of the lands.

Notable amount of Industrial lands are used for non-industrial purposes

Conversion of industrial lands can occur in different ways. Some industrial lands are re-designated and removed from the Inventory as per municipal plans, while other lands with flexible Industrial designations are rezoned to allow for non-industrial uses. Some of these other types of uses support industrial activities, while others may threaten industrial areas; as example, 6% of the Inventory is used for stand-alone retail and commercial.

Some municipal plans include 'mixed employment' designations and zones that permit a wide range of industrial and commercial uses, which allows for more non-industrial uses in industrial areas, such as stand-alone retail, office, and other commercial. Allowing non-industrial uses in industrial areas reduces the land supply for industrial users and also can increase land prices and create land-use conflicts. These issues can destabilize industrial areas and compromise the ability for industrial growth.

The conversion of industrial lands continues

From 2010 to 2015, there was a net reduction of industrial lands in the region of 350 ha (865 ac). During this period, 147 ha (362 ac) of land were added to the Inventory, mostly in Surrey, Langley, and Maple Ridge, and 496 ha (1,226 ac) were removed from throughout the region.

This figure reflects the fact that the amount of ‘Vacant’ lands decreased by 19% (513 ha / 1,268 ac); some of which became ‘Developed’ (380 ha / 939 ac) and some of which were removed from the

Inventory due to conversion to other uses (134 ha / 331 ac). Lands were removed from the Inventory due to a number of reasons, but mostly due to municipal policy changes (such as OCP designation changes or lands being rezoned and developed for non-industrial uses).

The conversion of industrial land continues to reduce opportunities for industrial development and industrial business expansion, and the limited land supply and higher land prices may push some industrial activity to other jurisdictions, with economic, employment, and taxation implications for the Metro Vancouver region.

Most Industrial lands are secured for long term protection

Municipal policies (land use designations and zoning) and regional land use designations secure long-term industrial use of industrial lands. The protective regional designations cover 91% of the lands in the 2015 Inventory. Lands that do not have such policy protection are more likely to convert and redevelop to other uses, particularly lands in Urban Centres. Although in some cases this change may be consistent with local and regional plans, such conversions further reduce the supply of lands available for industry.

Competing priorities for lands

Metro 2040 includes other long range regional planning goals, such as accommodating population and employment growth, focusing commercial and housing development in Urban Centres, protecting agricultural and environmental lands, and supporting sustainable transportation forms. Because of these multiple goals and objectives, there are in some cases competing or even conflicting policy priorities. For example, while protecting industrial lands is important, intensifying lands in Urban Centres and near transit is also important; in some cases achieving both objectives may not be possible.

Short-term intensification potential is limited on lands that are fully utilized

Lands classified as 'General Industrial', which make up nearly half (47%) of the 2015 Inventory, are mostly 'fully utilized' (93%). This fact suggests that most of these lands are substantially used, with limited immediate opportunity for redevelopment and intensification. Nevertheless, as these lands redevelop over the medium and long term, there will be potential to densify and intensify.

Potential extension of lifespan of available vacant lands

The net land absorption was 380 ha (939 ac), or 76 ha (188 ac) per year on average over the 2010-2015 period. This rate is lower than the previous 2005-2010 period (with an average annual absorption rate of 93 ha / 230 ac). A lower future absorption rate potentially extends the lifespan of the existing supply of industrial lands. Using a theoretical absorption forecast model, the 'Vacant' industrial land supply might be substantially absorbed by the 2030s. However, it is important to note that before full depletion, the remaining land supply would be small, scattered parcels that would not be viable for larger industrial development.

Few available large sites for 'trade enabling' logistics uses

There are few 'Vacant' sites available for 'trade enabling' logistics users, namely large sites with few constraints and close to transportation infrastructure. Most of the best sites have already been developed. More industrial development, particularly logistics related activities occurring at increasingly farther away locations relative to the port terminals due to lack of available closer lands, may create more and longer truck trips (drayage) and associated traffic congestion and environmental impacts.

In some cases, abutting smaller properties can be consolidated and redeveloped in order to create larger sites for larger tenants, such as logistics operators.

1 Introduction

1.1 Overview and Intended Outcome

The Metro Vancouver 2015 Industrial Lands Inventory ('2015 Inventory') provides a comprehensive picture of the amount and type of 'Developed' and 'Vacant' industrial lands in the region. The 2015 Inventory contains detailed information about the quantity, utilization, status, and characteristics of the industrial lands in Metro Vancouver as of mid-2015. The 2015 Inventory, with 24 detailed land use classifications, also allows for a comparison with past Inventories (2005 and 2010, as revised) to track change over time, land development / absorption patterns, and inform the basis for potential further study of the market readiness timing of 'Vacant' lands and re-development / intensification potential of 'Developed' lands.

1.2 Objectives

The purpose of the 2015 Inventory is to report the status of the quantity and quality of industrial lands in the region with an aim to improve the understanding of the different types of industrial lands and uses, and inform decision-makers and further policy work. The 2015 Inventory provides accurate and nuanced information about the amount of land that is 'Developed' for industrial activities and identifies lands that are 'Vacant', and types of activities on the lands, as well as other land characteristics.

The objectives of the 2015 Inventory and this report are to:

- provide information about the Metro Vancouver region's supply of industrial lands;
- illustrate changes between the 2005, 2010, and 2015 Inventories;
- inform dialogue and policies about industrial lands issues in the region;
- support further actions to advance industrial lands protection and intensification potential; and
- inform regional planning performance measuring and reporting.

1.3 Application

The 2015 Inventory, compared to previous ones in 2005 and 2010, provides more detailed information about the region's industrial land supply, and allows for focused analysis on particular areas of interest (geographic, industrial sectors, type of land uses, etc.). The 2015 Inventory classification system includes a range of land uses and definitions to portray the region's functional industrial land supply.

The 2015 Inventory documents the level of activities occurring on lands, and informs the potential to accommodate additional industrial activities. Industrial land uses can be compared between different areas of the region to assess intensities, differences and similarities, as well as areas with under-utilized sites. It can inform regional and municipal planning processes, as well as infrastructure investments by agencies and private sector business decisions, such as supporting:

- the refinement of municipal and regional industrial plans and policies;
- municipal zoning bylaws;
- preparation of area plans and employment projections;
- development of tools to encourage the development and intensification of industrial lands;
- the development community about available industrial lands; and
- appropriate economic and employment growth.

The 2015 Inventory sets the stage for -- as a future separate report -- the assessment of lands based on their potential industrial development in terms of timing and re-development or intensification, reflecting features and criteria such as area opportunities / constraints, proximity to transportation infrastructure, and other key factors. This analysis will estimate the amount of vacant industrial lands in the region that could likely be developed over different timeframes and also which types of industrial activities could be accommodated on them.

Identifying specific lands that have the greatest potential for industrial (re)development and intensification will also inform other planning initiatives, including municipal, community, and sub-area / neighbourhood plans, policies to advance industrial land redevelopment in specific areas, and exploration of appropriate regulations and incentives to encourage investment.

Further work on the industrial lands portfolio may relate to industrial land demand, documenting the land needs of industrial users by sector or typology, considering alternative means to accommodate anticipated industrial growth in the region, alternative goods movement options, and documenting potential impacts on the region from industrial lands re-developing to other forms (i.e. displacement of uses to other locations).

1.4 Policy Context

Metro Vancouver 2040: Shaping Our Future ('Metro 2040'), the regional growth strategy adopted in 2011, includes regional land use designations and policies to protect industrial lands, encourage industrial intensification, and coordinate efficient goods movement infrastructure to serve industry.

Metro 2040 provides a policy response to a number of challenges, including both the need to ensure an adequate supply of space for industry and commerce as well as the importance of protecting the natural and agricultural land base in the region. The 2015 Inventory supports the goals of *Metro 2040*, specifically providing information to protect the supply of industrial lands and intensification, and informing further possible work and actions. (See Appendix 16 for a list of reference documents.)

The *Metro 2040* regional land use designations identify regionally significant industrial lands. Within the ‘Industrial’ and ‘Mixed Employment’ lands, various types of industrial activities are accommodated, along with associated accessory uses. *Metro 2040* ‘Industrial’ lands, followed by ‘Mixed Employment’ lands, have the greatest level of importance for industry and thus level of protection. At the same time, industrial uses are also occurring on other lands, some of which are regionally designated as ‘General Urban’, with various municipal designations and/or zoning (or equivalent).

Metro 2040 has six regional land use designations. These designations are parcel-based and apply to the entire region. Two of these designations are for industrial related uses, described as follows:

- *Industrial areas are primarily intended for heavy and light industrial activities, and appropriate accessory uses. Limited commercial uses that support industrial activities are appropriate. Residential uses are not intended.*

- *Mixed Employment areas are intended for industrial, commercial and other employment related uses to help meet the needs of the regional economy. They are intended to continue to support industrial activities, and complement and support the planned function of Urban Centres and Frequent Transit Development Areas. Mixed Employment areas located within Urban Centres and Frequent Transit Development Areas provide locations for a range of employment activities and more intensive forms of commercial development.*

  Mixed Employment areas located outside of Urban Centres and Frequent Transit Development Areas are primarily intended for industrial and commercial uses that would not normally be attracted to these locations. Mixed Employment areas located outside of Urban Centres and Frequent Transit Development Areas may contain office and retail uses provided that they are at lower densities than typically higher density Urban Centres and Frequent Transit Development Areas and in locations well served by transit or have committed expansions to transit service. Residential uses are not intended in Mixed Employment areas.

Industrial activities are also permitted or occur in other areas, such as ‘General Urban’, however are predominantly located in the ‘Industrial’ and ‘Mixed Employment’ designated areas. The precise types of industrial activities permissible are explained in regional context statements, which are prepared by municipalities and accepted by the Metro Vancouver Board, as well as municipal land use plans and zoning bylaws.

1.5 Related Work

The status of industrial lands in the region has been documented by Metro Vancouver, as well as NAIOP (Commercial Real Estate Development Association), Port Metro Vancouver, and other parties, with publications quantifying which parts of the inventory are developed and which parts are vacant, the market readiness of industrial lands, estimated land demand, and other considerations such as the potential for intensification.

In 2005 and 2010, Metro Vancouver completed Inventories of the industrial lands in the region. These past Inventories were undertaken to monitor the supply of industrial land and to assess its availability for future industrial development. As part of the 2015 Inventory project, the 2005 and 2010 Inventories were revised to ensure that results were comparable over time. The inventory numbers in this report replace the previously published numbers in the 2005 and 2010 Inventories.

Metro Vancouver's 2012 market readiness study estimated that fewer than 1,900 ha (4,700 ac) of the 'Vacant' industrial lands at the time would likely be available for development in the following five year period (2013-2017). Lands may still require further utility / infrastructure investments, rezoning and other development approvals, be hindered by factors such as accessibility, current uses, lot assembly, soil conditions, need for pre-loading, or development costs.

1.6 Industrial Lands Inventory Components

The 2015 Inventory provides information about four areas of interest: Land Quantity, Land Utilization, Market Readiness, and Land Redevelopment or Intensification Potential. Each of these components is explained below.

Land Quantity: The Inventory measures the supply of industrial and quasi-industrial lands as well as 'Vacant' lands in the region. Industry includes a wide range of types of industrial and related land uses, from port terminals on publically owned lands to rail intermodal yards, to privately owned distribution facilities and 'General Industrial' market uses. The region's industrial lands were organized into 24 defined land use classifications.

Introduced for the 2015 Inventory:

Land Utilization: The Inventory measures the utilization of the industrial land base, providing information about the intensity of activities on lands classified 'Building Intensive - General Industrial', which make up about 47% of the Inventory. The utilization level of industrial lands varies by sector, location, and site and business specific influences. The 'General Industrial' component of the Inventory has been assessed by utilization, providing information about the intensity of activities on these lands.

Future reports may explore:

Market Readiness: For lands that are 'Vacant' (or not used for industry), assess their industrial development potential in terms of timing as well as possible types of uses. The anticipated timing of development for 'Vacant' industrial lands is influenced by factors such as existing property uses, designations and zoning, and infrastructure servicing. The Inventory facilitates assessing the market readiness or potential development timing of the 'Vacant' industrial lands.

Land Redevelopment / Intensification Potential: For lands that are 'Developed', assess their industrial re-development and intensification potential in terms of possible type of use and density. Different types of sites vary greatly in terms of their potential to redevelop and intensify, based on factors such as existing uses, land ownership, property values, location and proximity to other related uses or destinations (suppliers, customers, workforce, transportation infrastructure). The Inventory facilitates the exploration of the intensification potential of industrial lands capacity through optimization.

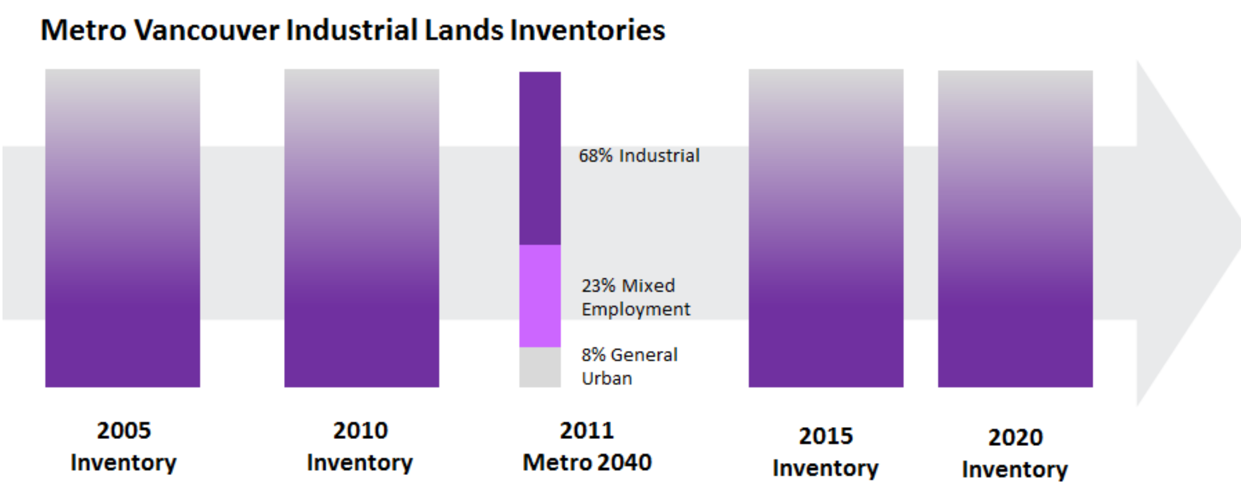
2 Industrial Lands Supply

2.1 Universe of Industrial Lands Inventory

Metro Vancouver's regional interest in industrial lands emerged in the early 2000s. At that time, concern about the ongoing conversion of industrial lands to other uses became more prevalent and the scale of conversion, coupled with concern about a dwindling supply of available industrial land, led to the creation of a regional industrial lands taskforce, comprised of municipal members, that guided the completion of the 2005 and 2010 Industrial Lands Inventories.

In 2011, *Metro Vancouver 2040: Shaping our Future* (*Metro 2040*), the regional growth strategy, was adopted. The regional interest in industrial lands, as confirmed through the results of the 2005 and 2010 Inventories, was formalized through *Metro 2040* policies and the addition of two regional land use designations ('Industrial' and 'Mixed Employment'). *Metro 2040* also reconfirmed other long range regional planning goals, such as accommodating population and employment growth, focusing commercial and housing development in Urban Centres, protecting agricultural and environmental lands, and supporting sustainable transportation.

The types of lands included in the initial Industrial Lands Inventories were based on municipal designation and zoning. This definition of industrial lands or the universe of the Inventory has remained consistent for all three Inventories (2005, 2010 and 2015), which allows for comparison over time and tracking of lands.



Scope of inventory remains consistent; *Metro 2040* provides a new filter.

The Inventories include 'Developed' industrial lands, quasi-industrial lands, 'non-market' industrial or infrastructure type lands, as well as other lands, including those that are 'Vacant' of industrial uses. In addition, properties that were not designated Industrial, but were zoned Industrial and developed / used as industrial, or zoned as comprehensive development with allowable industrial uses and developed / used as industrial, were included and classified as 'Developed' (see definitions in Appendix 13). As well, the Inventory incorporates the Port Metro Vancouver (PMV), Vancouver

International Airport (YVR), and Tsawwassen First Nations (TFN) land use plans, plus Metro Vancouver's *Metro 2040* land use designations.

The 'universe' or scope of lands included in the Industrial Lands Inventory are all lands that are municipally designated (Official Community Plans, sub-area / neighbourhood plans, or equivalent) Industrial, plus lands that are both zoned (or equivalent) Industrial and used for industry, as of the date of the Inventory. Specifically, the inventory scope or universe consists of the lands that have one or more of the attributes listed in the below table. There are also smaller-scale industrial activities occurring on other lands not included in the Inventory.

Table 2.1: Lands Included in the Industrial Lands Inventory

		MUNICIPAL LAND USE DESIGNATION	
		Designated Industrial	Designated Non-Industrial
DEVELOPED INVENTORY	Zoned Industrial	✓	✓
	Zoned Non-Industrial	✓	X
VACANT INVENTORY	Zoned Industrial	✓	X
	Zoned Non-Industrial	✓	X

✓ = included in Industrial Lands Inventory X = not included in Industrial Lands Inventory

While industrial lands on Indian Reserves were not included in the Inventory, lands within the Tsawwassen First Nation were included. The Vancouver International Airport was included within the Richmond sub-region. All airport and port lands were included within their respective local host municipality.

The Inventory is generally considered at the parcel level. In some cases, it was appropriate to combine multiple legal parcels and associated data that are a functional industrial operation / business into one 'site'. Only in unique or exceptional circumstances are properties 'split' into two sites for Inventory purposes.

More particularly, 'Developed' and 'Vacant' lands are defined as follows:

- **'Developed'** lands are those with industrial and quasi-industrial uses. They also include lands with some non-industrial uses that are building intensive and not likely to redevelop to industrial uses. These uses include stand-alone retail and office, as well as media production, banquet hall / assembly, education / training, and indoor recreation. These commercial uses are included in the Inventory because they are located on lands that are municipally designated Industrial.
- **'Vacant'** includes lands that are totally vacant, as well as lands that have non-industrial uses that are likely to (re)develop to industrial uses. Specifically, this includes lands that are municipally designated Industrial, but currently are used for agriculture, residential, or resource extraction. Vacant YVR and Port lands are considered to have industrial potential over the long-term. Throughout this report, these lands are all referred to as 'Vacant', unless otherwise stated.

2.2 Geographic Areas

Metro Vancouver (the Greater Vancouver Regional District) has 23 municipal jurisdictions, although only 16 have industrial lands. There are 9 geographic sub-regions in Metro Vancouver. The following table and map shows the municipalities and sub-regions.

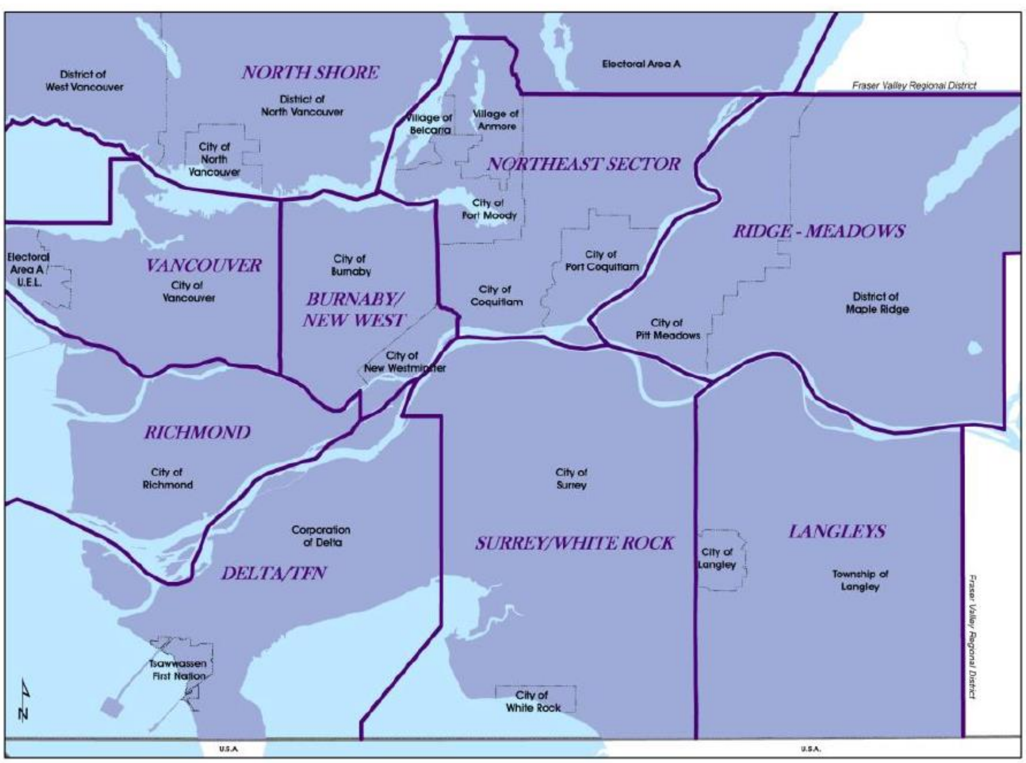
The inventory data was compiled at the site level and summarized by municipalities, sub-regions, and for the region as a whole. The majority of the inventory data in the body of the report is presented at the regional and sub-regional levels; municipal level data are in Appendices 2 - 9.

Table 2.2: Geographic Sub-Regions and Municipalities

Sub-Region:	**Municipalities included:**
North Shore	City of North Vancouver, District of North Vancouver, *Village of Lions Bay, Bowen Island Municipality, District of West Vancouver*
Vancouver	City of Vancouver, *University of British Columbia / University Endowment Lands (within the Electoral Area)*
Burnaby / New Westminster	City of Burnaby, City of New Westminster
North-east Sector	City of Port Moody, City of Coquitlam, City of Port Coquitlam, *Village of Anmore, Village of Belcarra*
Richmond	City of Richmond (including Vancouver International Airport)
Delta / TFN	Corporation of Delta, Tsawwassen First Nation
Surrey / White Rock	City of Surrey, *City of White Rock*
Langleys	City of Langley, Township of Langley
Ridge – Meadows	City of Maple Ridge, City of Pitt Meadows

The municipalities in the table noted with *italics* do not contain any industrial lands as defined in this report.

Map 2.1: Geographic Sub-Regions



2.3 Factors Affecting Industrial Lands Capacity

Industrial lands are not all equally viable for different types of industrial users, and location and site features are important factors for industrial users. There are various constraints that can affect the development capacity of industrial lands, for example location and site features. It is important to note that the lands inventoried and amounts reported are gross areas; various types of constraints or limitations as noted will reduce the net developable amount of land.

Some sites have site-specific constraints, or pre-existing uses that may make it difficult to (re)develop with intensive industrial uses. Additionally, environmental constraints and natural hazards may reduce the amount of land that is potentially developable for industrial uses. Other constraints include location, established non-industrial uses, the availability of needed infrastructure for development, ownership patterns affecting land assembly, and smaller sites that may not be adequate for certain types of industrial development.

Some industries are better able to locate in a wider range of locations, whereas other industries must have direct and reliable access to transportation infrastructure and other features. For example, businesses involved in trade, transportation, and logistics, proximity to highways, port terminals, and rail yards are of vital importance. Accordingly, poorly-located industrial lands are not an option for these types of users.

Also of note, some industrial lands may have legal / tenure or use limitations, such as lands owned by the airport authority which are restricted to airport related uses or port lands restricted to port related activities, but can still accommodate some forms of industry.

Further, because of site constraints, as well as location and market factors, some lands may not be developed for some time. All of these factors will affect the potential for the industrial land supply to meet demand.

3 Industrial Lands Inventory Methodology

3.1 Approach

Metro Vancouver planning staff developed the methodology for the 2015 Inventory, building on past 2005 and 2010 Inventories. Details of the methodology were also informed through discussions with municipalities, industry, and other stakeholders. The objective for the methodology is to create a clear set of rules that can be consistently applied using available information to systematically categorize industrial lands in the Metro Vancouver region.

Parts of the 2015 Inventory classification system are designed to be comparable with past Inventories (2005 and 2010, which were revised), so that change over time can be measured.

The methodology outlines the sources from which data has been compiled, the scope or universe of lands included in the 2015 Inventory, the definitions of the 24 land use classifications, and measures of land utilization. The ownership of the land, zoning and designations, and other attributes, which may impact utilization, development timing, (re)development and intensification potential, were also collected. For 'General Industrial' classified lands, five utilization categories were created, along a continuum from 'totally un-utilized' to 'totally utilized'.

Available data from multiple sources was linked together with an internal GIS system to create the database. Initial exploratory analysis was completed for sample sub-sets of the full universe of lands. Data collection and measures used for the report were developed during the preliminary review process and discussions with stakeholders. This experience was used to inform the required resources and possible results for completion of the full inventory.

Appendices 10, 11, and 12 include the details of the methodology for the 2015 Inventory, as well as engagement process and list of stakeholder workshop participants.

3.2 Inventory Data Sources

Information used in the 2015 Inventory include:

- Cadastral GIS data (Integrated Cadastral Initiative and Metro Vancouver data sources)
- BC Assessment Authority property information (2012)
- Dun & Bradstreet business information (2015)
- Municipal Land Use and Zoning GIS files
- Orthophoto image (flown in 2014, except for Maple Ridge flown in 2015)
- Google Earth orthographic image (flown in mid 2015)
- Municipal planning staff, agency representatives, industrial brokerage firms, and consultants

3.3 Improved Methodology for 2015 Inventory

In 2005 and 2010, Metro Vancouver completed Inventories of the industrial lands in the region. For both the past Inventories, Metro Vancouver considered only whether the land was 'Developed' or 'Vacant'. In actuality, industrial lands have different types of uses, levels of utilization, and (re)development potential due to various site and area factors or characteristics.

The previous binary inventory classification did not reflect the on-the-ground reality that some 'Developed' properties are only partially utilized (and have significant redevelopment and intensification potential), nor the fact that some 'Vacant' properties may have significant development constraints (or are currently being used for other non-industrial purposes).

With better available information, the 2015 enhanced data collection and classification system addresses limitations and criticisms inherent in previous industrial lands Inventories. Building on past work, the 2015 Inventory provides enhanced detail about the industrial land supply in the region through 24 different land use classifications, which provides fine-grain detail of the different types of uses on the lands. The past Inventories and subsequent refinements are further explained in Appendix 14.

3.4 Land Use Classifications and Definitions

On the following page is the list of 24 land use classifications for the 2015 Inventory (full definitions are provided in Appendix 13) in order to provide a detailed understanding of the industrial lands supply. The land use classification definitions reference the predominant or primary use of the site, including normally associated on-site accessory / ancillary uses (including parking and loading areas), as of mid-2015. Accessory, non-industrial uses, are normal components of industrial lands. Properties may include multiple or overlapping and non-discrete uses, in which case the predominant use is considered for the classification.

For reporting purposes, these detailed land use classifications have been consolidated into 7 categories, as noted in sub-headings in the following chart.

The process of classifying lands started with the assumption that lands were 'Building Intensive - General Industrial', and using available information ranging from orthographic photos, business records, municipal zoning, etc, were re-classified to other uses where such was obviously the primary use for the site. It is acknowledged that the classification process cannot be perfectly accurate, given the variety of different data sources and currency. This limitation in terms of selecting a single classification for each site is particularly acute in cases where there is a wider range of uses on lands or multiple level buildings, such as parts of the City of Vancouver. The end results is 24 land use classifications, however nearly half (47%) are still within the broad category of 'Building Intensive - General Industrial'.

List of Detailed and Consolidated Land Use Classifications

Total Land Inventory

<u>Building-Intensive Industrial</u>

1. General Industrial

<u>Land-Intensive Industrial</u>

2. Industrial - Outdoor Storage
3. Other Infrastructure - Maintenance Yards / Emergency Services

<u>Large-Scale Infrastructure / Transportation</u>

4. Other Infrastructure - Utilities
5. Other Infrastructure - Oil Tank Farm
6. Transportation Infrastructure - Rail Yards
7. Transportation Infrastructure - YVR Airside / Groundside Developed
8. Transportation Infrastructure - Port Terminal Developed

<u>Transportation Infrastructure – Parking / Other</u>

9. Transportation Infrastructure - Other
10. Transportation Infrastructure - Parking

<u>Retail Uses</u>

11. Non-Industrial - Retail (big box)
12. Non-Industrial - Retail (small or medium-scale)
13. Non-Industrial - Retail (car / trailer dealerships)

<u>Other Commercial Uses</u>

14. Non-Industrial - Office
15. Non-Industrial - Media Production
16. Non-Industrial - Banquet Hall / Assembly
17. Non-Industrial - Education / Training
18. Non-Industrial - Indoor Recreation

<u>Other Uses / Vacant</u>

19. Non-Industrial - Agriculture
20. Non-Industrial - Residential
21. Industrial - Resource Extraction
22. Transportation Infrastructure - YVR Airside / Groundside Vacant
23. Transportation Infrastructure - Port Terminal Vacant
24. Vacant Land

'Developed' Lands

'Non-Industrial Uses'

'Vacant' Lands

3.5 Land Utilization Continuum

Recognizing that many lands are not simply either 'Vacant' or 'Developed' and that there are shades between these categories, a land utilization continuum was created. For 'Building Intensive - General Industrial' classified lands, which comprise 47% of the 2015 Inventory, five utilization categories were created, along a continuum from 'totally un-utilized' to 'totally utilized'. Utilization is defined as the approximate percentage of the site covered by permanent improvements or clearly utilized (i.e., buildings, structures, surface parking / loading areas, outdoor storage). It is important to note that site utilization is not the same as building floor area ratio, and can vary by type of use / activity.

The utilization rate of industrial lands informs the potential for redevelopment and intensification of these lands over the long-term.

The percentage as a ratio of the site's full potential, which could vary by type of use / activity, is classified as follows:

1) 'Totally' un-utilized (0-20%)
2) Predominantly or substantially un-utilized (20-40%)
3) Partially utilized (40-60%)
4) Predominantly or substantially utilized (60-80%)
5) 'Totally' utilized (80-100%)

Only 'General Industrial' lands were subject to the above continuum of utilization. Other types of lands were simply classified by use.

3.6 Unique Types of Lands

There are a number of unique types of sites and industrial land uses in the region. These lands may have special attributes such as limitations on use, tenure, or future development. For example, restrictions may apply to Vancouver International Airport, Port Metro Vancouver, and Tsawwassen First Nation lands. Additionally, there are lands used for rail yards and infrastructure / utilities that are not 'market' lands. These types of lands may not necessarily be available to develop as all forms of industrial, but still support industrial functions.

The below text explains some particular types of lands included in the 2015 Inventory.

Airports
Airports are a unique land use, and facilitate the transport of people and goods. Airport facilities and associated operations may have some industrial components, and other semi-related uses and activities. For the airports in the region (YVR, Pitt Meadows, Delta, and Langley), the runways and airfields are not included in the Inventory, nor are the terminal buildings / lands. Airside and groundside industrial lands ('Developed' or 'Vacant') are included in the Inventory.

Specifically for YVR Vancouver Airport Authority on Sea Island, it is important to note that these lands are distinct in terms of ownership, use, and future development potential. These airport lands are neither municipally designated nor do they have municipal Industrial zoning and used for conventional industrial purposes. YVR is currently updating their master land use plan, which may impact lands that will be included in future inventories. These lands will be used to support the Gateway and some to generate non-aeronautical revenue. Some Airside land may be used for industrial purposes associated with airport activities. Aeronautical restrictions may render some of the land inappropriate for industrial development and would face development restrictions to some degree.

Ports

Ports are a unique, water-dependent use that facilitate the import and export of goods by ship through different types of terminals, as well as people by way of cruise ship terminals. Port lands include a variety of different types of industrial and quasi-industrial uses and marine related activities. In some cases, this includes sand / gravel processing and asphalt / concrete recycling activities, which from an orthographic photo may appear to be substantially vacant sites, but in fact have ongoing activities.

For the various port facilities fronting the ocean and river, the port terminal and docks are included in the Inventory as 'Transportation Infrastructure – Port Terminal'. Surrounding lands are classified according to their varied use. Water lots do not have any land use classification and are not included in the Inventory.

Developing Lands

Some lands were at different stages of the approval or development process at the time of the Inventory 'snapshot'. If lands are undeveloped at that time, they were classified as 'Vacant' or as a non-industrial use. This classification may occur despite the fact that in some cases there may be an active application indicating imminent development. The development may be for a specific tenant, or built on speculation for an as-yet identified tenant. Additionally, lands with 'pre-load' site preparation activity were also classified as 'Vacant'.

3.7 Methodology Notes

It is also important to note the following when reviewing the Inventory classifications:

- All references to land areas are <u>gross</u> calculations – <u>net</u> developable areas are less;
- In some cases, subtotals may not exactly tally with totals, due to rounding and conversion of numbers;
- Classifications reflect actual use of the lands, as of mid-2015, not necessarily the zoning, designation, nor future potential use of the lands;
- Classification definitions reference the primary use of the site, including normally associated on-site accessory / ancillary uses, such as parking and loading areas;

- Properties may include multiple or overlapping and non-discrete uses, in which case the predominant use is considered for the classification;
- Although some lands do not have large buildings, they are still substantially utilized with accessory outdoor activities;
- A ‘site’ may represent multiple separate legal properties consolidated for the purposes of the Inventory analysis;
- Only in unique or exceptional circumstances are properties ‘split’ into two sites for Inventory purposes;
- Unassociated abutting properties could be consolidated to create larger developable sites to potentially accommodate larger industrial users;
- Current land use classification is independent of future-oriented land use designations; and
- Not all lands in the Inventory are useable for all types of industry.

3.8 Report Limitations

During the course of preparing the 2015 Inventory, a number of limitations including interpretation issues or application challenges where identified and addressed as best as possible. These included: imperfect data; varying interpretations coupled with a desire to maintain consistency; multiple uses on a single site; ‘shades of gray’ between different types or levels of uses; type(s) or level of use not always clear; and municipal plans that include 'mixed employment‘ designations / zoning that allow for a range of uses. Also, data sources are from different periods, and accuracy cannot be confirmed in all cases.

The 2015 Inventory for sites or areas with a wider variety of uses, such as parts of the City of Vancouver, may be less reliable than other areas of the region due to a high degree of mixed use and multi tenanted buildings.

This report should not be relied upon to make site specific planning or development decisions or investments.

4 Industrial Lands Inventory Results

The Metro Vancouver 2015 Industrial Lands Inventory data was analyzed in several ways: by geography (regional, sub-regional, municipal), land use classification (detailed, consolidated), regulatory overlay (regional designation, municipal designation, zoning), and ownership (private, public, other). Variables such as site size and rate of utilization are also reported. Further reporting about the Inventory's potential, such as proximity to transportation infrastructure and other features, and site physical constraints, will be explored in future studies.

This section begins by describing the 2015 Inventory at a regional level, followed by sub-regional findings, with figures, tables, and maps. Detailed maps at the sub-regional level can be found in Appendix 1. Detailed tables at the municipal level can be found in Appendices 2-9.

The total 2015 Inventory consists of 11,331 ha (28,000 ac) of land, spanning 9 sub-regions.

4.1 Total Industrial Lands Inventory

4.1.1 Geographic Sub-Regions

The chart below shows the amount and distribution of the 2015 Inventory lands among the sub-regions. The majority of industrial lands are located in the South of Fraser municipalities (detailed tables in Appendices 4 and 5). Specifically, the largest areas and markets are:

- 2,584 ha in Surrey (23% of the total Inventory)
- 1,765 ha in Richmond (16% of the total Inventory)
- 1,598 ha in Delta / Tsawwassen First Nation (14% of the total Inventory)

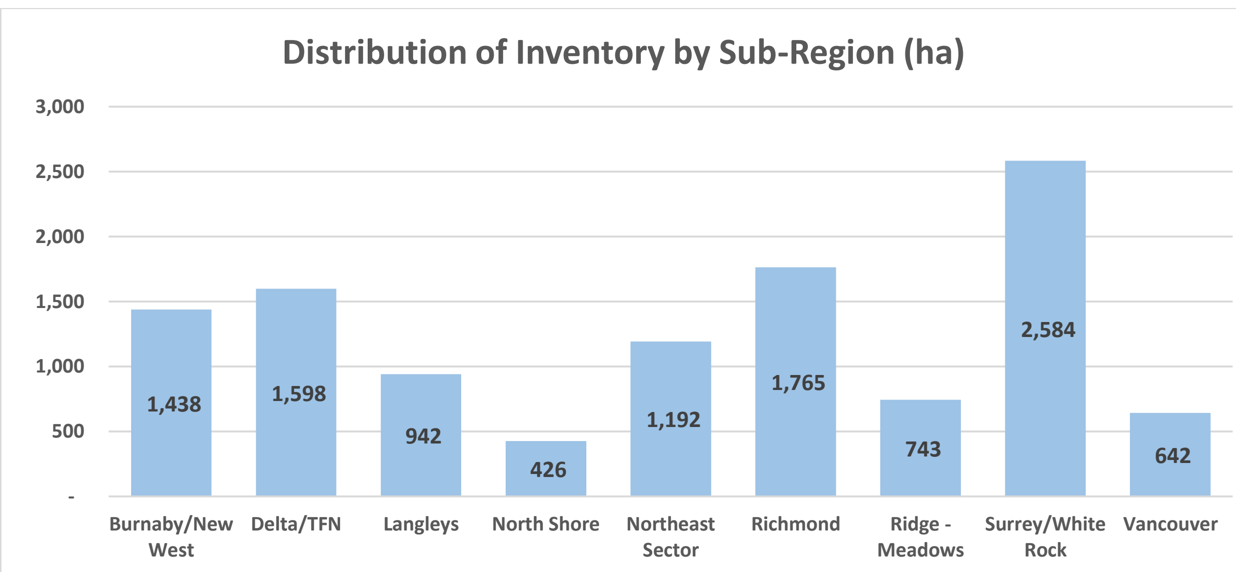


Table 4.1: Inventory by Sub-Region and Municipality (ha/ac)

Row Labels	Count of Land_Status	Sum of Area_ha	Sum of Area_Acre	% of Total
Burnaby/New West	**1,399**	**1,438**	**3,553**	**13%**
Burnaby	1,247	1,232	3,044	11%
New Westminster	152	206	509	2%
Delta/TFN	**700**	**1,598**	**3,948**	**14%**
Delta	687	1,468	3,627	13%
TFN	13	130	322	1%
Langleys	**810**	**942**	**2,328**	**8%**
Langley City	133	86	214	1%
Langley Township	677	856	2,115	8%
North Shore	**442**	**426**	**1,053**	**4%**
North Vancouver City	140	140	346	1%
North Vancouver District	302	286	706	3%
Northeast Sector	**596**	**1,192**	**2,947**	**11%**
Coquitlam	262	323	798	3%
Port Coquitlam	250	415	1,027	4%
Port Moody	84	454	1,122	4%
Richmond	**1,101**	**1,765**	**4,362**	**16%**
Richmond	1,101	1,765	4,362	16%
Ridge - Meadows	**239**	**743**	**1,837**	**7%**
Maple Ridge	205	528	1,304	5%
Pitt Meadows	34	215	532	2%
Surrey/White Rock	**1,948**	**2,584**	**6,386**	**23%**
Surrey	1,948	2,584	6,386	23%
Vancouver	**1,492**	**642**	**1,587**	**6%**
Vancouver	1,492	642	1,587	6%
Grand Total	**8,727**	**11,331**	**28,000**	**100%**

4.1.2 Developed and Vacant Regional Inventory

The 11,331 ha (28,000 ac) of land in the 2015 Inventory can be rolled up from 24 land use classifications into two categories to enable comparison to past Inventories (see Section 2.1):

- **'Developed'** (18 categories) – 9,071 ha / 22,414 ac (80% of the Inventory)
- **'Vacant'** (6 categories) – 2,261 ha / 5,586 ac (20% of the Inventory)

By sub-region, the following table shows the distribution of 'Developed' and 'Vacant' lands. The proportion of lands by sub-region varies greatly, with few 'Vacant' industrial lands in Vancouver and the North Shore, and more 'Vacant' lands in the southern and eastern parts of the region. Of all the 'Vacant' industrial lands in the region, 38% are located in Surrey (33% of the lands in Surrey are 'Vacant'). Also, Ridge-Meadows contains large areas of 'Vacant' lands, however much of these lands are located far away from transportation infrastructure.

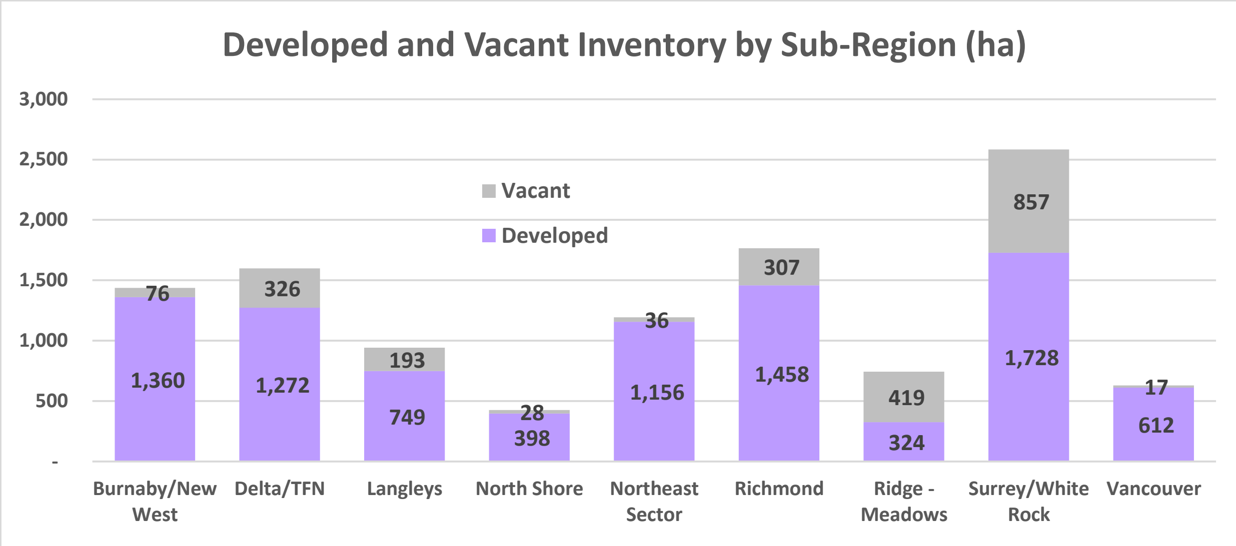
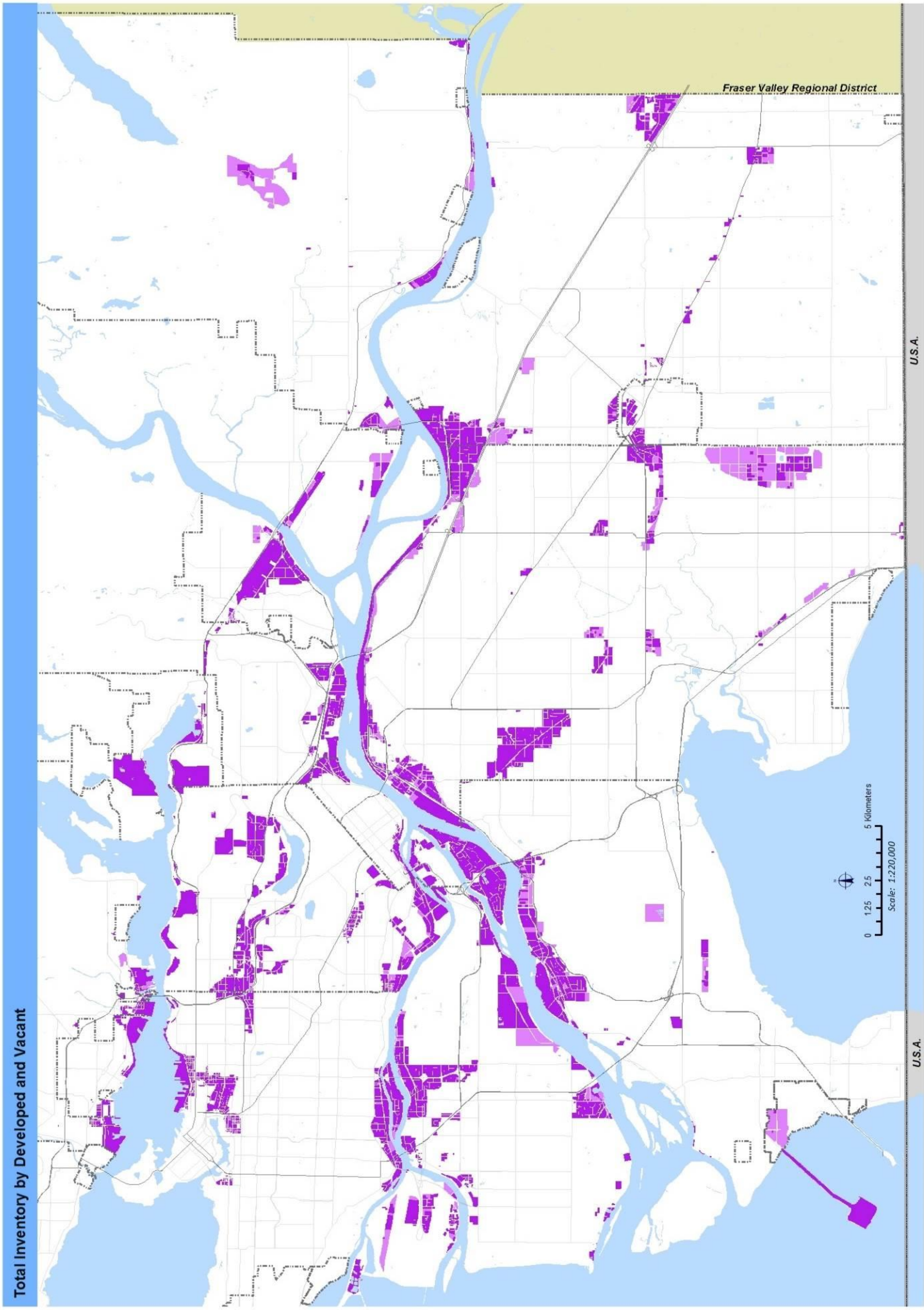


Table 4.2: Developed and Vacant Inventory by Sub-Region (ha)

Row Labels	Developed	Vacant	Grand Total	% Vacant
Burnaby/New West	1,360	77	1,438	5%
Delta/TFN	1,272	326	1,598	20%
Langleys	749	193	942	21%
North Shore	398	28	426	7%
Northeast Sector	1,156	36	1,192	3%
Richmond	1,458	307	1,765	17%
Ridge - Meadows	324	419	743	56%
Surrey/White Rock	1,728	857	2,584	33%
Vancouver	625	17	642	3%
Grand Total	**9,071**	**2,261**	**11,331**	**20%**

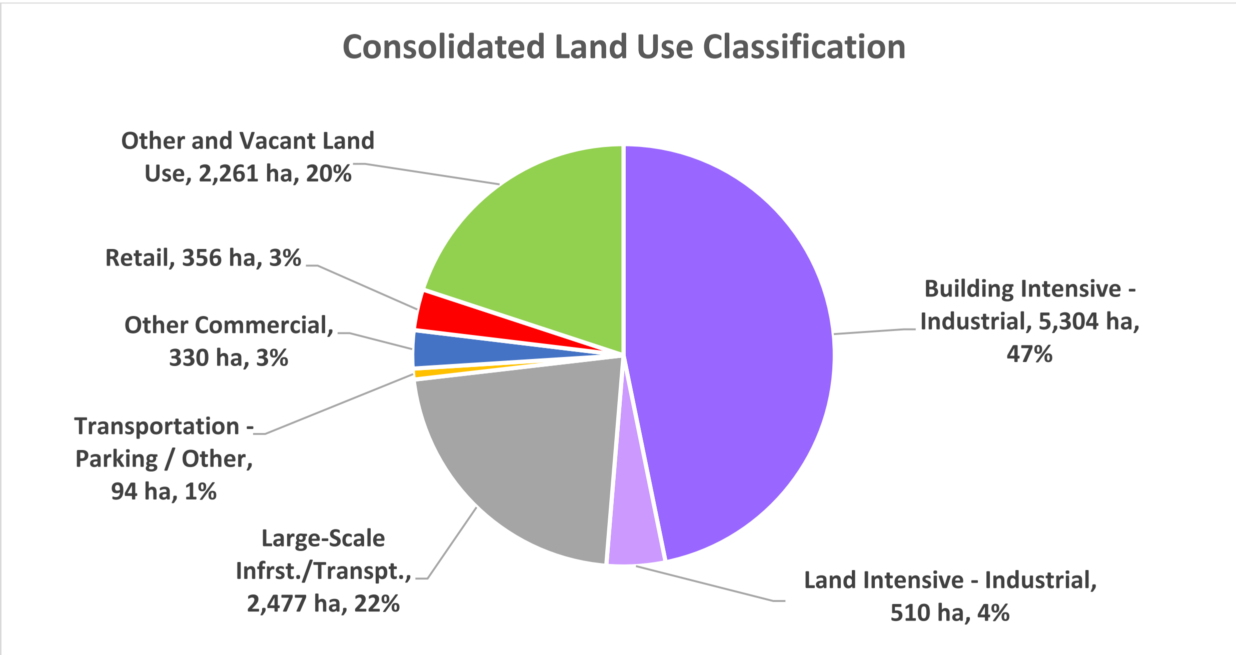
The following map shows the 'Developed' and 'Vacant' industrial lands in the region. Significant parts of the 2015 Inventory are located along the Fraser River, including Tilbury and Annacis Island in Delta, South Westminster in Surrey, south Coquitlam, as well as lands in Port Coquitlam and Port Kells in Surrey / Langley. Other notable areas are on the north and south sides of Richmond and Vancouver, the North Shore, and Port Moody. Also, there are many industrial sites away from the water, located throughout Burnaby, Surrey, and Langley.

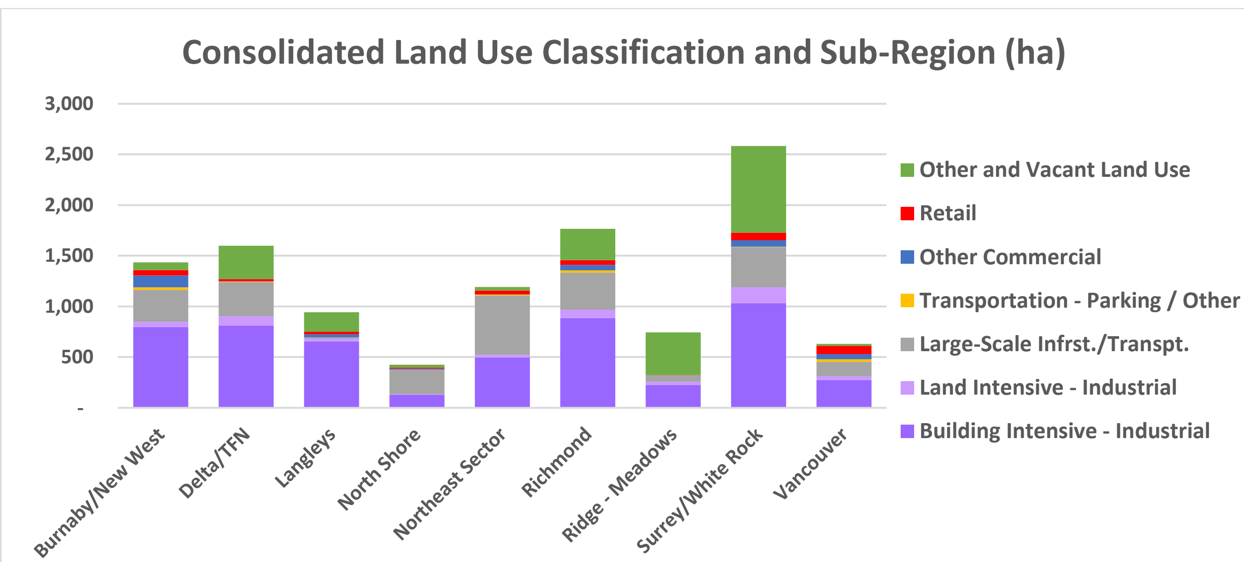
The largest areas of 'Vacant' lands can be found in south-east Surrey (Campbell Heights), north-east Maple Ridge, and on the Tsawwassen First Nation lands (by Roberts Bank Terminals), which are under development.


Total Inventory by Developed and Vacant
Fraser Valley Regional District
U.S.A.
U.S.A.
Industrial Land Status
Developed
Vacant
0 1.25 2.5 5 Kilometers
Scale: 1:220,000

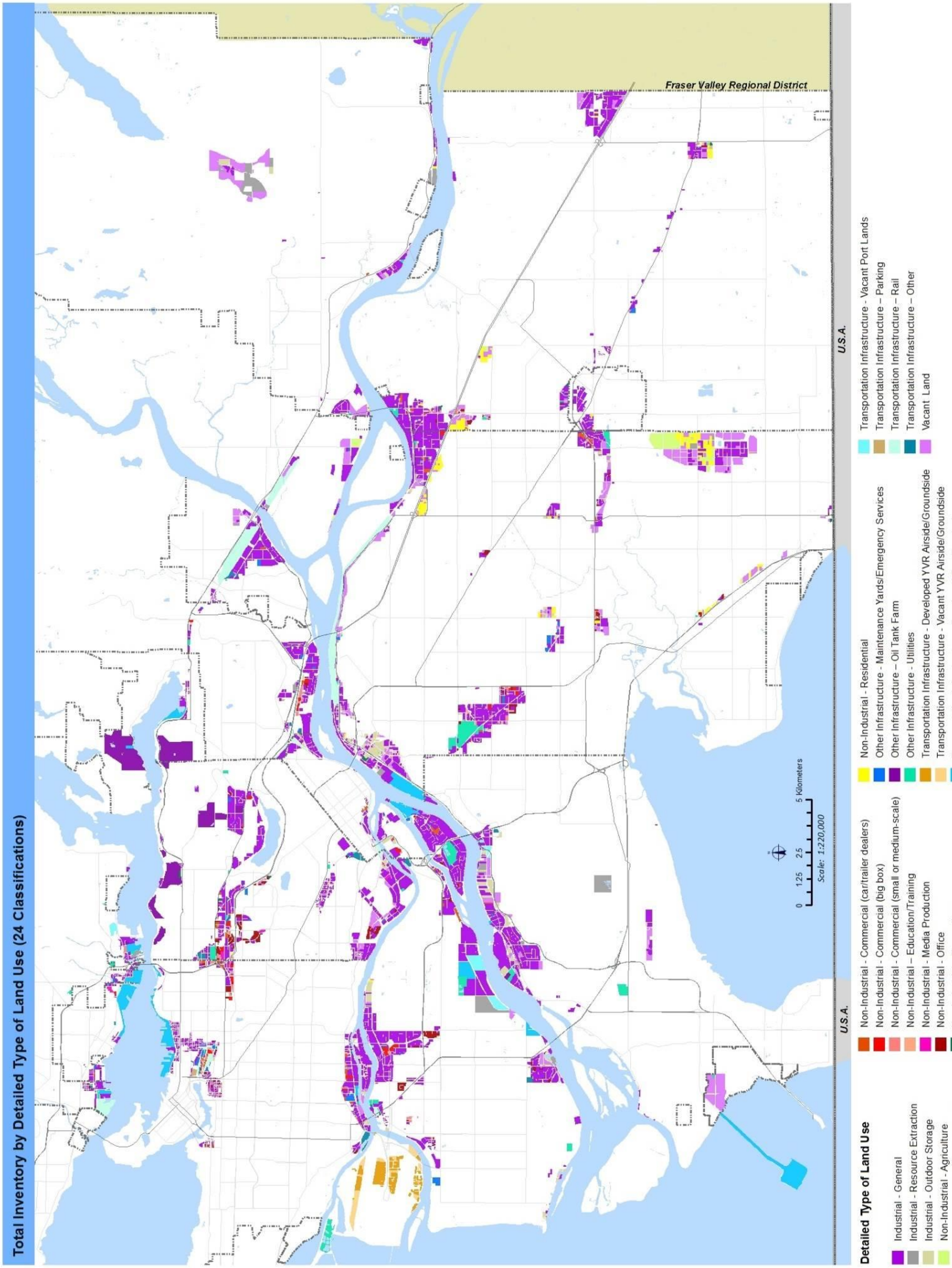
4.1.3 Land Use Classifications

The following figures show the distribution of the 2015 Inventory by land use classification consolidated into 7 categories and by sub-region. The largest category is 'Building Intensive - General Industrial' (47% of total), followed by 'Large Scale Infrastructure / Transportation' (22%). Other types of land uses, some of which are non-market industrial uses, make up smaller parts of the Inventory. Of note, these uses include 'Retail' and 'Commercial' (3% each) occurring on lands designated Industrial. The lands that are 'Vacant' represent 20% of the Inventory. Detailed tables can be found in Appendices 2 and 3.





The following maps show the detailed and consolidated land use classifications for the entire region, respectively. Nearly half of the total Inventory is 'General Industrial', shown as dark purple.


Total Inventory by Detailed Type of Land Use (24 Classifications)
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
Other Infrastructure - Maintenance Yards/Emergency Services
Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
Transportation Infrastructure - Developed YVR Airside/Groundside
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land

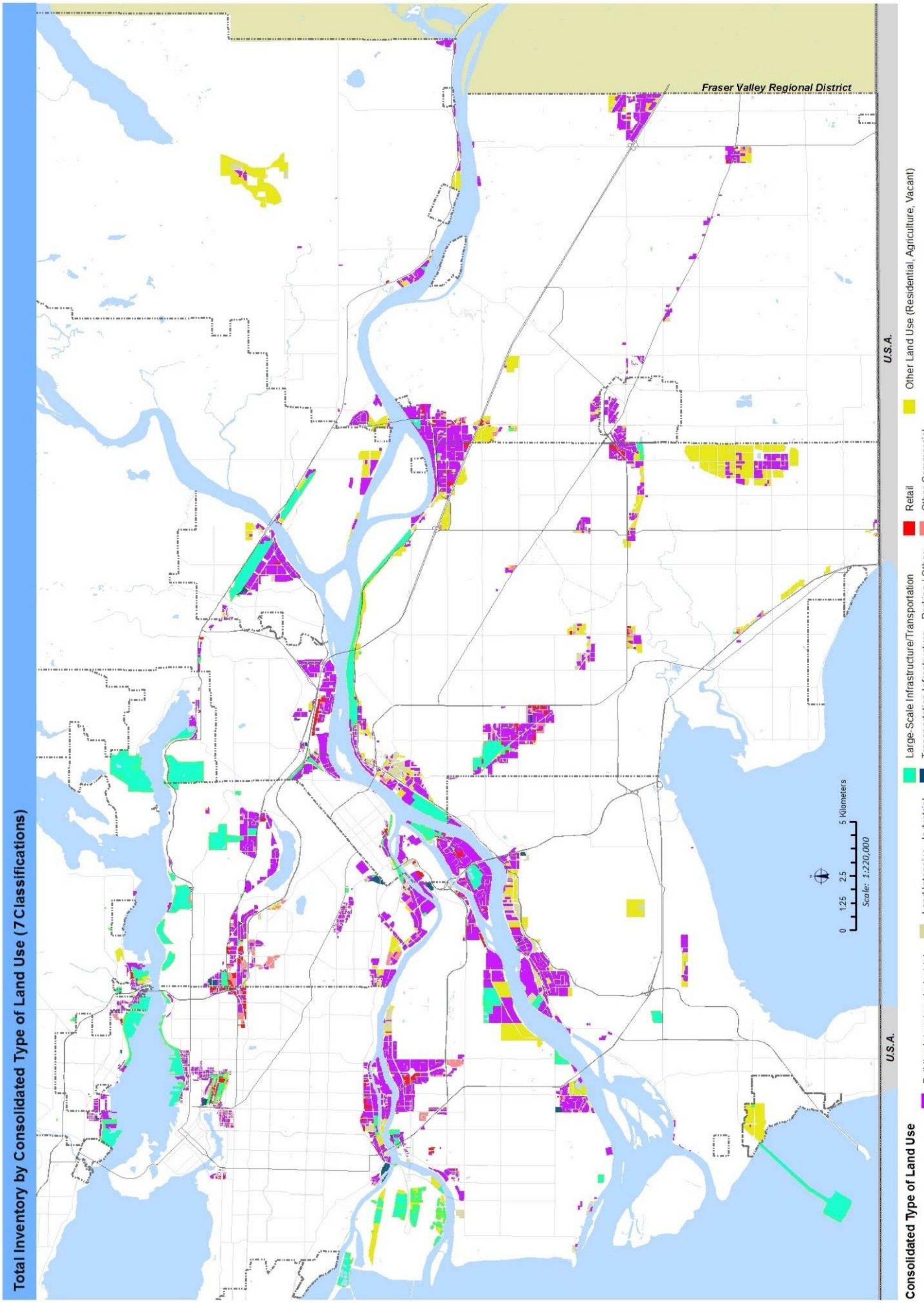

Total Inventory by Consolidated Type of Land Use (7 Classifications)
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Consolidated Type of Land Use
Building Intensive - Industrial
Land Intensive - Industrial
Large-Scale Infrastructure/Transportation
Transportation Infrastructure – Parking / Other
Retail
Other Commercial
Other Land Use (Residential, Agriculture, Vacant)

Table 4.3: Consolidated Land Use Classifications (ha/ac)

Row Labels	Sum of Area_ha	Sum of Area_Acre	% of Total
Building Intensive - Industrial	5,304	13,105	47%
Land Intensive - Industrial	510	1,260	4%
Large-Scale Infrst./Transpt.	2,477	6,121	22%
Transportation - Parking / Other	94	233	1%
Other Commercial	330	816	3%
Retail	356	879	3%
Other and Vacant Land Use	2,261	5,586	20%
Grand Total	**11,331**	**28,000**	**100%**

4.1.4 Protection and Future Intent for Industrial Lands

Properties have different land use designations and zoning due to a variety of reasons, some reflecting historical uses and others reflecting forward-looking policy intent. In some cases, municipalities may have policies in place to protect long-term industrial uses, whereas in other situations the plan may be to allow for change. Accordingly, industrial lands have a range of policy 'protection' from conversion to other uses provided by land use designations and zoning.

Industrial lands that are designated in regional (*Metro 2040*) and municipal (OCP, area plans, or equivalent) plans as Industrial and are municipally zoned (or equivalent) Industrial have the greatest 'protection' and are most likely to remain industrial for the long-term. Conversely, lands that are used for industry and zoned Industrial, but not designated Industrial, are more likely to, or are intended to, redevelop to a non-industrial use reflecting the applicable land use designation.

Regional Land Use Designations

Metro 2040, the regional growth strategy, provides for parcel-based land use designations for the entire region. Through the development of the regional growth strategy, leading up to adoption in 2011, municipalities submitted maps identifying regional land use designations for all parcels within their jurisdiction. In preparing the *Metro 2040* land use designations, most municipal industrial lands were designated either *Metro 2040* 'Industrial' or 'Mixed Employment', however there were exceptions. 91% of lands in the 2015 Inventory are regionally designated either 'Industrial' (68%) or 'Mixed Employment' (23%). Nearly half of these lands are utilized as 'Building Intensive – General Industrial', and another third are used for other industrial purposes.

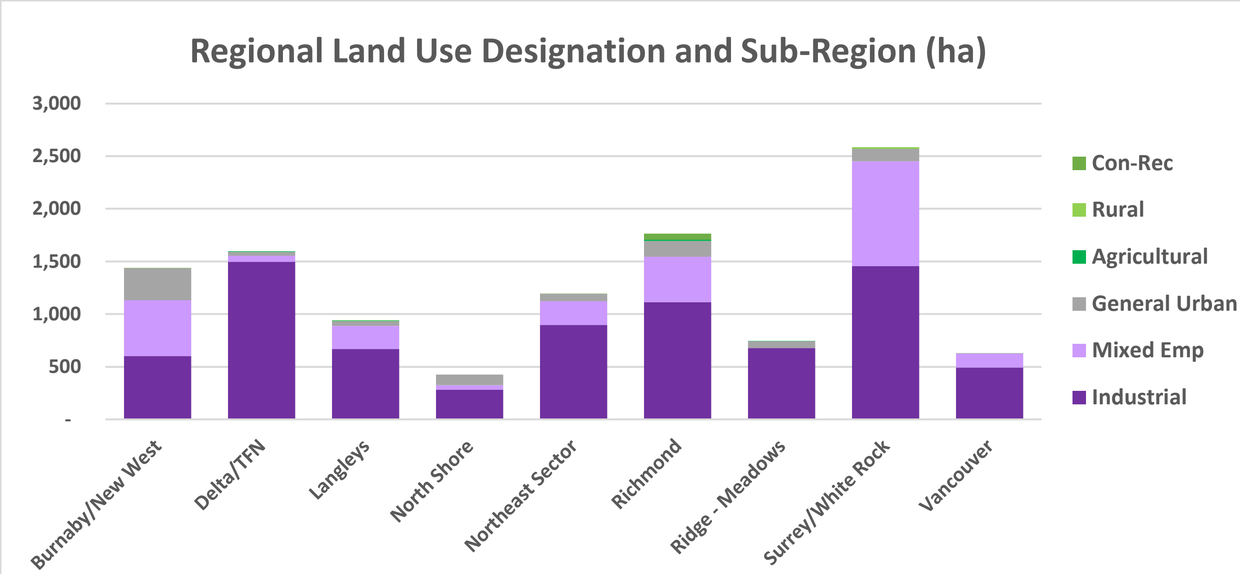


Table 4.4: Developed and Vacant Lands by Regional Land Use Designation (ha)

Row Labels	Developed	Vacant	Grand Total	% of Total
Con-Rec	62		62	1%
Rural	4	12	16	0%
Agricultural	26	1	26	0%
General Urban	782	111	893	8%
Mixed Emp	1,848	793	2,641	23%
Industrial	6,350	1,344	7,694	68%
Grand Total	**9,071**	**2,261**	**11,331**	**100%**

Metro 2040 'Industrial' lands are intended for heavy and light industrial activities and appropriate accessory uses, while 'Mixed Employment' lands have more flexibility in terms of use and are intended for industrial, commercial, and other employment related uses to help meet the needs of the growing regional economy. Given this difference, industrial uses on 'Mixed Employment' lands face pressures toward commercially-oriented redevelopment. Similarly, industrial uses on 'General Urban' lands, which comprise about 8% of the 2015 Inventory (893 ha), and which are intended for all land use types, may convert to, or be intended for, other uses over the long-term.

Because of *Metro 2040's* multiple goals and objectives, competing policy priorities are present. For example, while the protection of industrial lands is a regional priority, so is the intensification of lands in Urban Centres and near rapid transit. In cases where industrial lands are located near Urban Centres or rapid transit, achieving both objectives may not be possible. Just over a quarter of the 2015 Inventory lands that are regionally designated 'General Urban' are located in Urban Centres (266 ha), and ostensibly the long-term intention for those lands is to support other *Metro 2040* objectives to focus growth in transit-oriented locations and develop a network of vibrant Urban Centres.

Although the policy tools, in the form of land use designations and zoning, most often reflect the intent of the local government, the conversion of these industrial lands to other uses does mean a reduction in the supply of industrial lands and displacement of industrial tenants / users.

Table 4.5: Regional Land Use Designations (ha and ac)

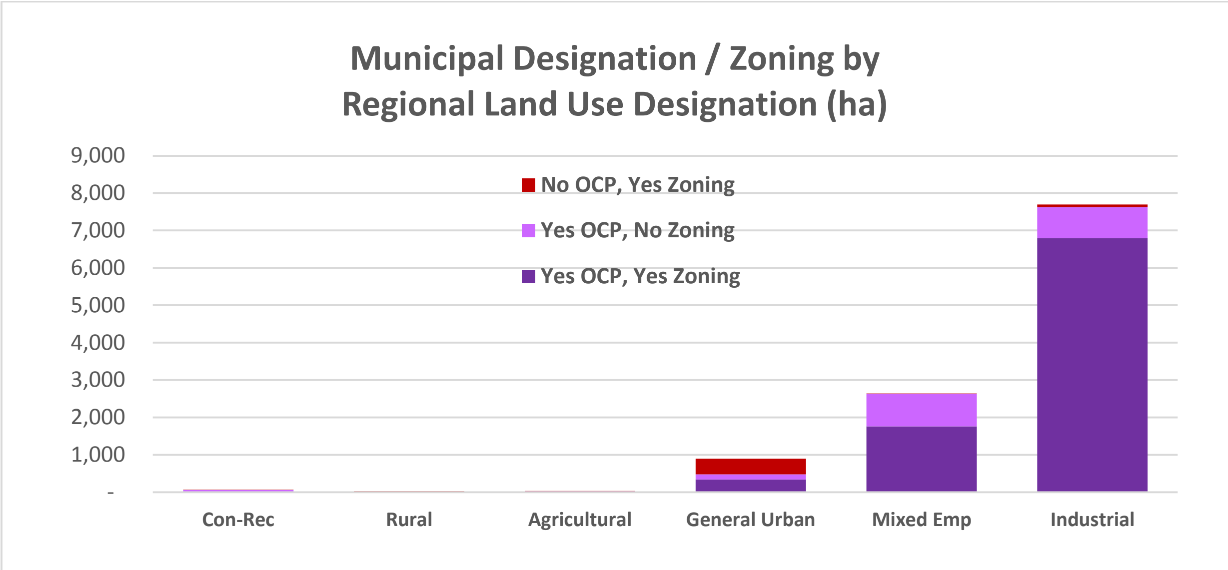
Row Labels	Area_ha	Area_Acre	% of Total
Con-Rec	62	153	1%
Rural	16	40	0%
Agricultural	26	64	0%
General Urban	893	2,206	8%
Mixed Emp	2,641	6,526	23%
Industrial	7,694	19,011	68%
Grand Total	**11,331**	**28,000**	**100%**

Municipal Land Use Designations and Zoning

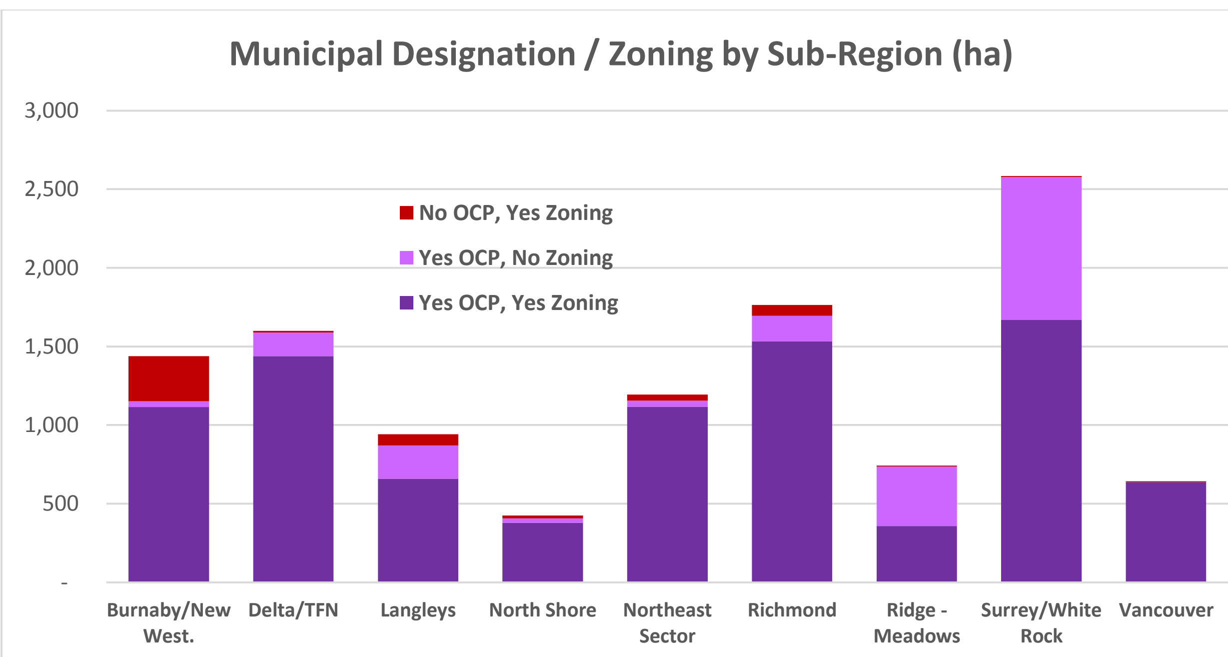
The following sections and charts show the distribution of lands by Official Community Plan designation (Yes or No Industrial designation) and zoning (Yes or No Industrial zoning), by regional land use designation, and by consolidated land use classification (detailed tables in Appendix 6).

79% (8,904 ha) of lands in the 2015 Inventory are both municipally designated and zoned Industrial. These municipal policies, along with applicable regional land use designations, secure the long-term industrial use of the lands. Of these lands, 6,797 ha is regionally designated ‘Industrial’, 1,756 ha is ‘Mixed Employment’, and 337 ha is ‘General Urban’.

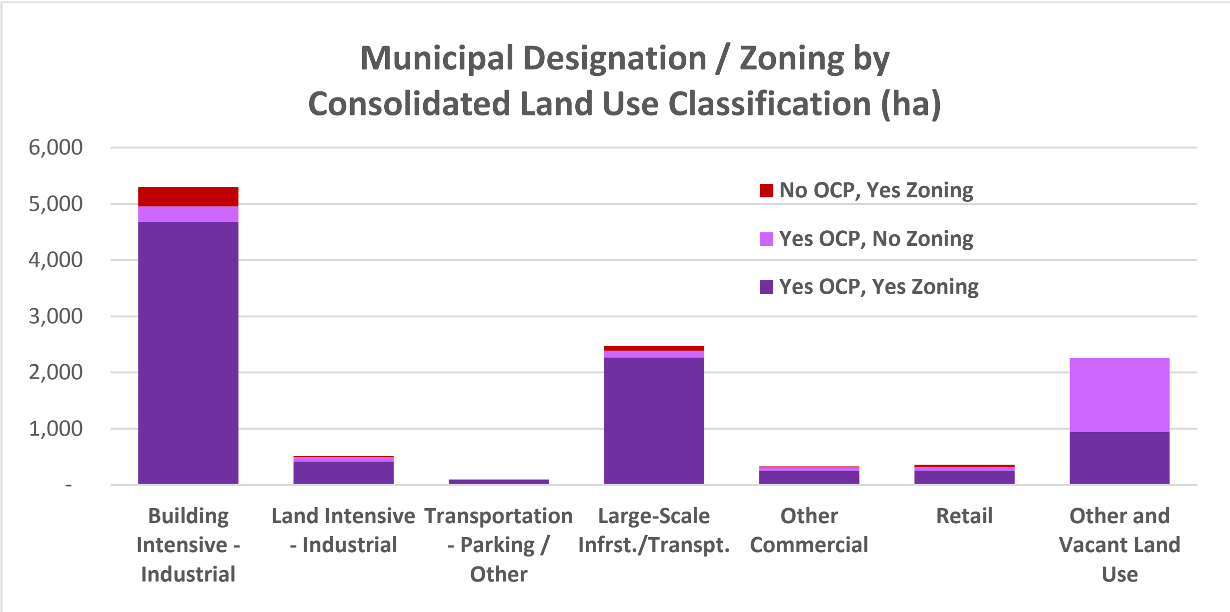
17% (1,917 ha) of the 2015 Inventory has a municipal Industrial designation, but not Industrial zoning, and 5% (511 ha) has Industrial zoning but not an Industrial designation, which results in diminished ability to ensure the long-term industrial use of the lands. The lands represented in red in the charts below (No OCP Industrial designation, Yes Industrial zoning), are most likely to be redeveloped to other uses in the future. As was noted, these lands are mostly regionally designated *Metro 2040* ‘General Urban’.

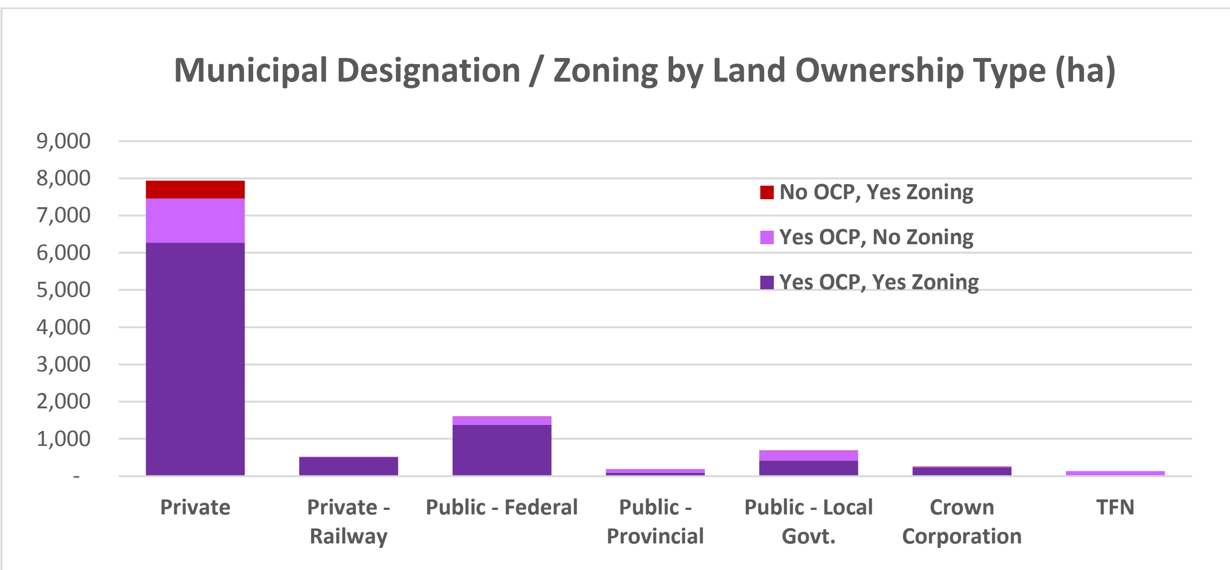


In terms of the distribution by sub-region of the lands that are zoned but not designated Industrial, just over half (56%) are located in Burnaby / New Westminster and 14% in Richmond. Most of the industrial lands in the North-east Sector, Delta / Tsawwassen First Nation, and North Shore have both municipal Industrial designation and zoning in place. Nearly half of lands that are municipally designated Industrial, but not zoned Industrial (47%) are located in Surrey, much of which are 'Vacant'.



In terms of the distribution of lands by consolidated land use classification, most of the industrial lands are protected with both municipal Industrial designation and zoning (from 81-92% depending on the land use), while the lands used for 'Commercial' and 'Retail' purposes are less likely to be designated or zoned Industrial. The following figures show that the lands with the least policy protection (red) are mostly in the 'General Industrial' and 'Land Scale Infrastructure / Transportation' classifications, and are privately owned.





Industrial Lands in *Metro 2040* Urban Centres

The region's 26 Urban Centres are identified in *Metro 2040* as targeted locations for population and job growth. The 2015 Inventory in Urban Centres is shown in the following tables.

There are 624 ha of lands in the 2015 Inventory that are located in the Urban Centres. Of these lands, 76% have municipal Industrial designations. In terms of regional land use designations, 40% are 'Industrial', 17% are 'Mixed Employment', and 43% are 'General Urban'.

Table 4.6: Lands in Urban Centres by Regional Designation

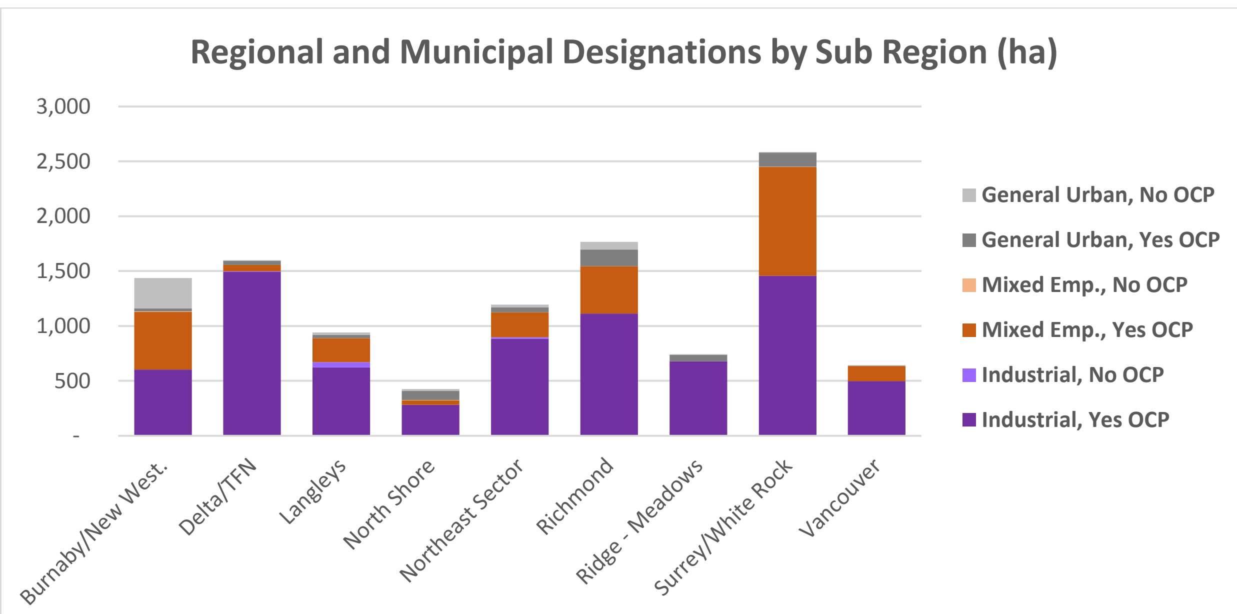
Regional Land Use Designation	Area (ha)	% of Total
Industrial	250	40%
Mixed Emp.	109	17%
General Urban	266	43%
Total	**624**	**100%**

Table 4.7: Lands in Urban Centres by Municipal Designation / Zoning

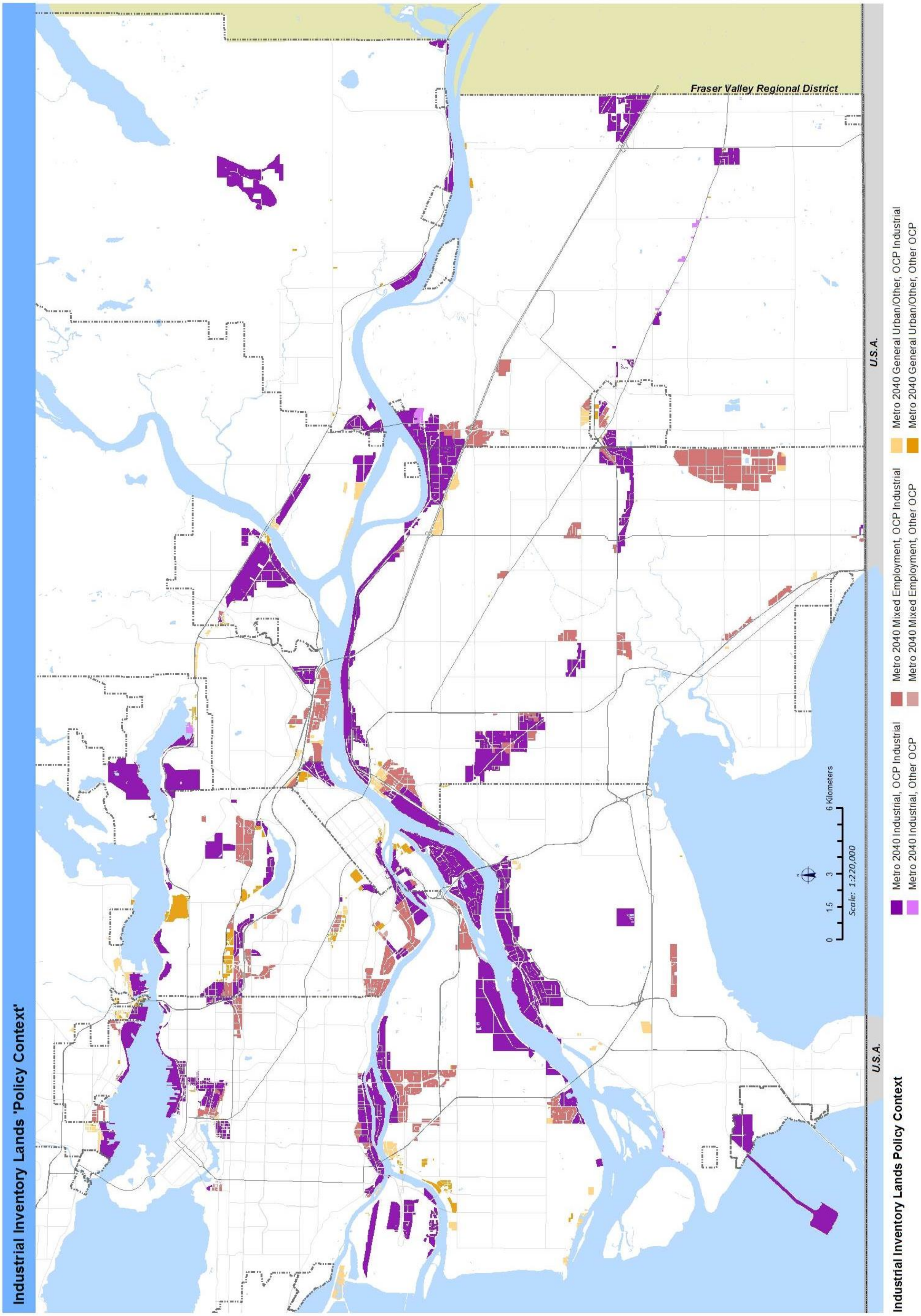
Municipal Designation/Zoning	Area (ha)	% of Total
Yes OCP, Yes Zoning	432	69%
Yes OCP, No Zoning	27	4%
No OCP, Yes Zoning	165	26%
Total	**624**	**100%**

Regional and Municipal Land Use Designations

The following figure shows consideration of both regional and municipal land use designations (Yes or No Industrial designation), independent of zoning. Notably, most of the lands in Delta / Tsawwassen First Nation are regionally designated 'Industrial' and also municipally designated Industrial, while approximately half of the lands in Burnaby / New Westminster and in Surrey are regionally designated 'Mixed Employment' and municipally designated Industrial (detailed tables in Appendix 7).



The following map shows the 2015 Inventory by regional and municipal land use designations. In purple are the lands with the greatest level of land use designation protection, and the lands in pink and orange have intent or are at greater likelihood to convert to other uses.


Industrial Inventory Lands 'Policy Context'
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.5 3 6 Kilometers
Scale: 1:220,000
Metro 2040 Industrial, OCP Industrial
Metro 2040 Industrial, Other OCP
Metro 2040 Mixed Employment, OCP Industrial
Metro 2040 Mixed Employment, Other OCP
Metro 2040 General Urban/Other, OCP Industrial
Metro 2040 General Urban/Other, Other OCP
Industrial Inventory Lands Policy Context

Vacant Lands

Specifically for the 'Vacant' component of the 2015 Inventory, 59% is regionally designated as 'Industrial' and 35% as 'Mixed Employment'. In terms of municipal designation, over half (58%) of the 'Vacant' lands have municipal Industrial designations, but do not have Industrial zoning.

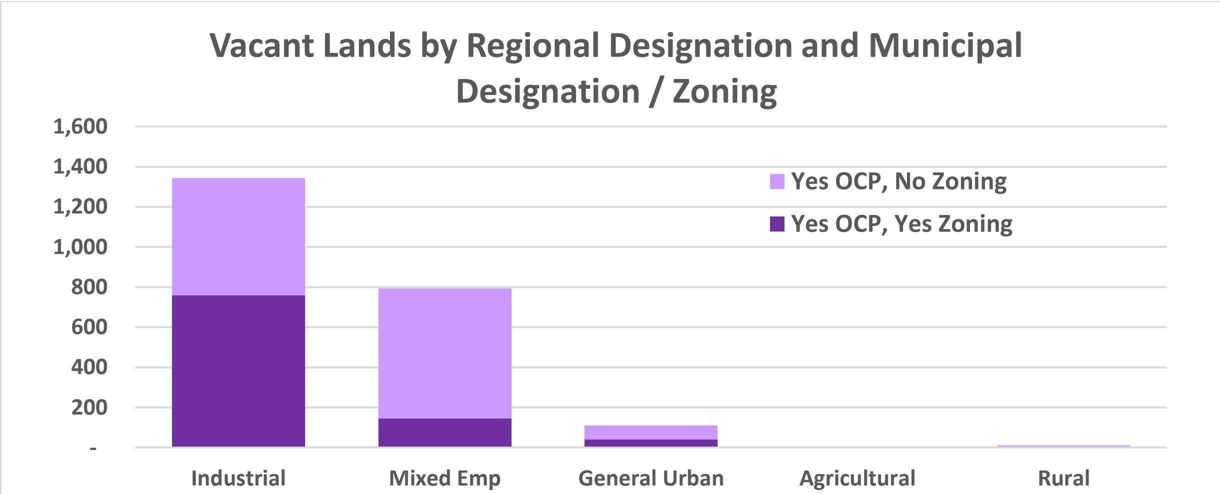


Table 4.8: Vacant Lands by Regional Designation and Municipal Designation / Zoning (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	Grand Total	% of Total
Industrial	760	584	1,344	59%
Mixed Emp	145	648	793	35%
General Urban	41	70	111	5%
Agricultural		1	1	0%
Rural		12	12	1%
Grand Total	**946**	**1,315**	**2,261**	**100%**

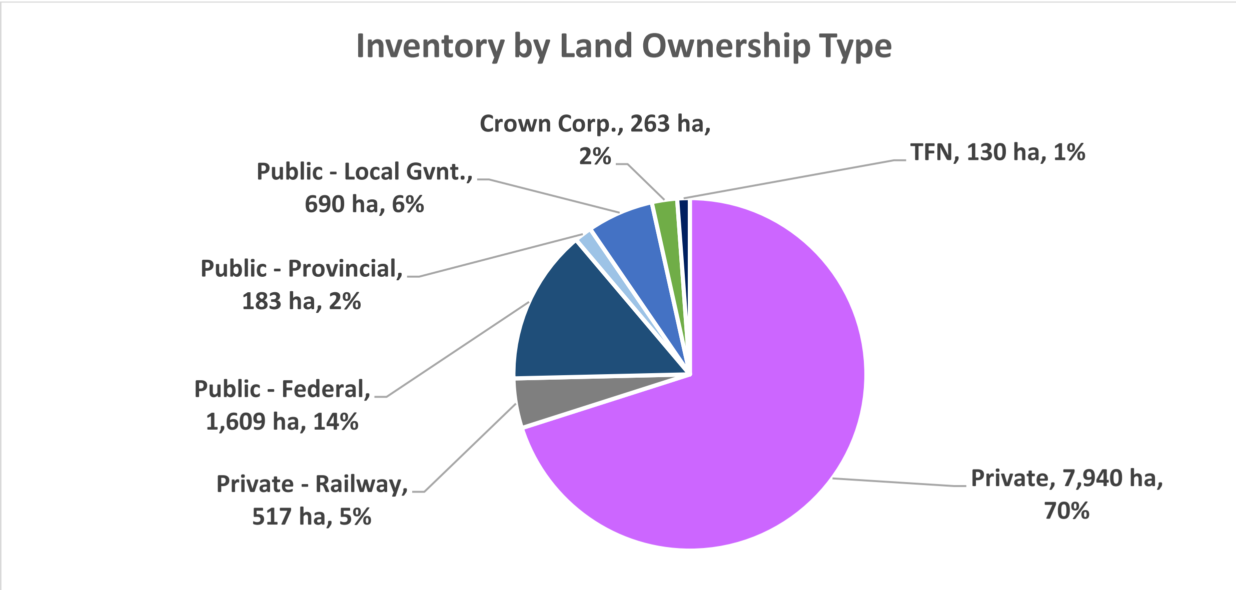
Table 4.9: Vacant Lands by Municipal Designation / Zoning by Sub-Region (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	Grand Total
Burnaby/New West	65	12	77
Delta/TFN	197	129	326
Langleys	50	144	193
North Shore	27	1	28
Northeast Sector	14	22	36
Richmond	283	24	307
Ridge - Meadows	85	334	419
Surrey/White Rock	207	649	857
Vancouver	17		17
Grand Total	**946**	**1,315**	**2,261**

4.1.5 Land Ownership Type

70% of the lands in the 2015 Inventory are privately owned, with an additional 5% owned by railways. The balance of lands (25%) are owned by various levels of government:

- 14% federal government (including port and YVR airport lands);
- 2% provincial government; and
- 6% local government (municipal, regional, and TransLink).



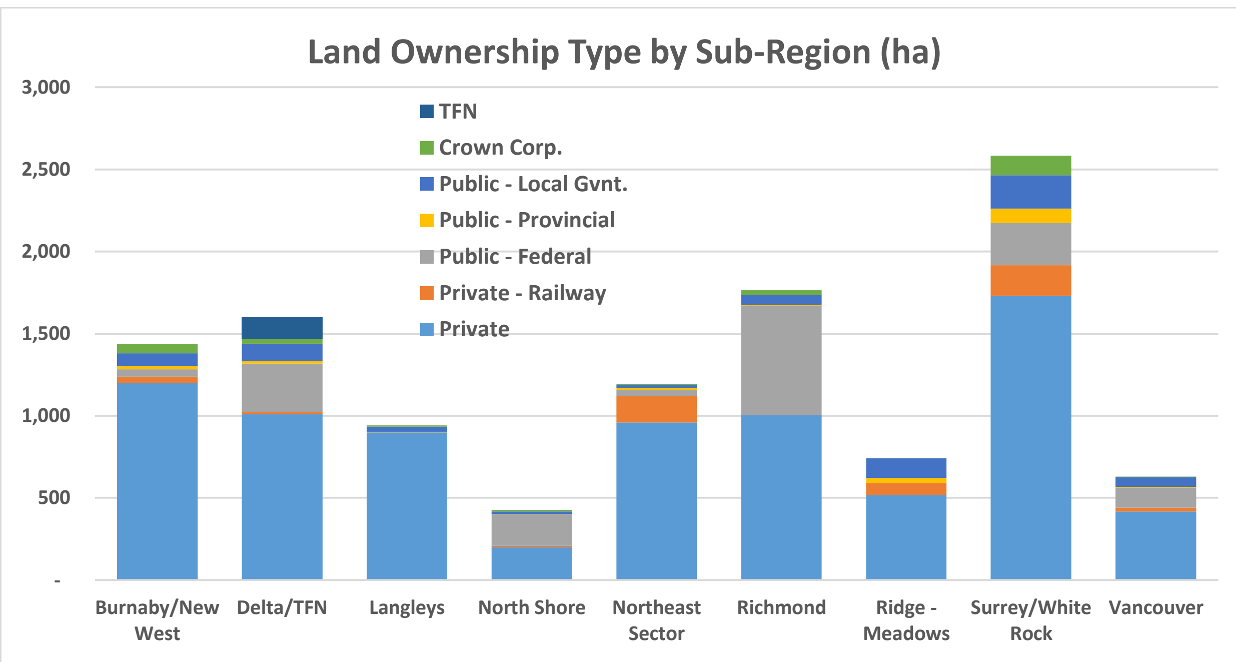


Table 4.10: Land Ownership Type and Land Use Classification (ha)

Row Labels	Building Intensive - Industrial	Land Intensive - Industrial	Large-Scale Infrst./Transpt.	Other Commercial	Retail	Transportation - Parking / Other	Other and Vacant Land Use	Grand Total
Private	4,863	370	709	296	353	28	1,321	7,940
Private - Railway	20	4	474	1			18	517
Public - Federal	303	18	967	2		3	315	1,609
Public - Local Gvnt.	93	90	126	16	1	53	311	690
Public - Provincial	10	15	8	8	0	11	131	183
Crown Corp.	15	13	190	6	0		38	263
TFN			2		1		127	130
Grand Total	**5,304**	**510**	**2,477**	**330**	**356**	**94**	**2,261**	**11,331**

The following figure shows the total 2015 Inventory by land ownership type relative to regional land use designation. Virtually all federal and railway owned lands are designated as 'Industrial', whereas a signification proportion of the privately-owned lands are designated 'Mixed Employment' or 'General Urban'.

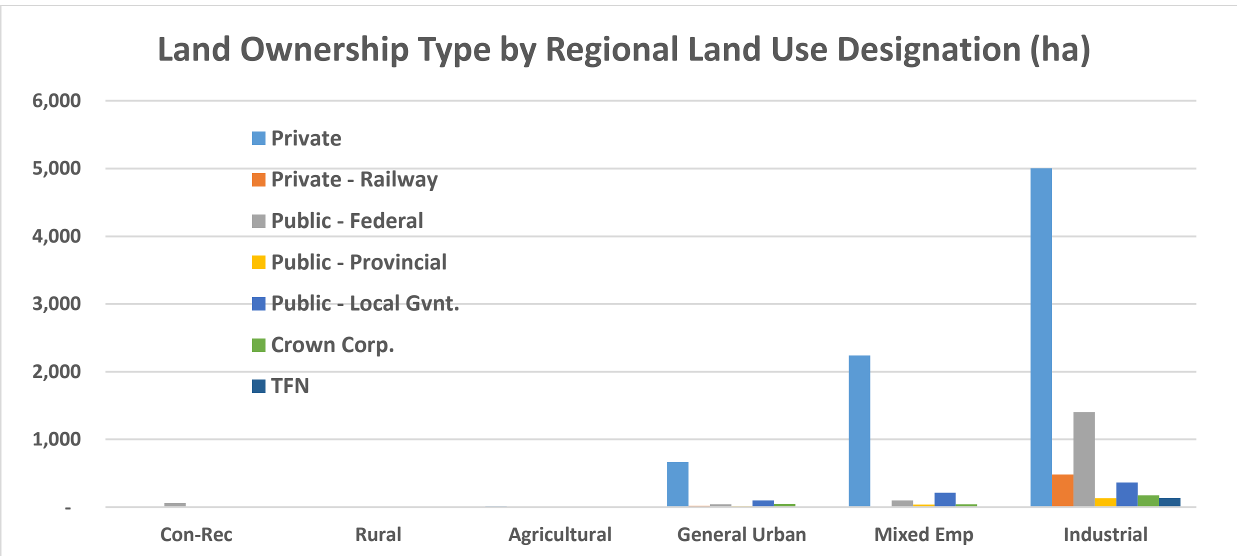
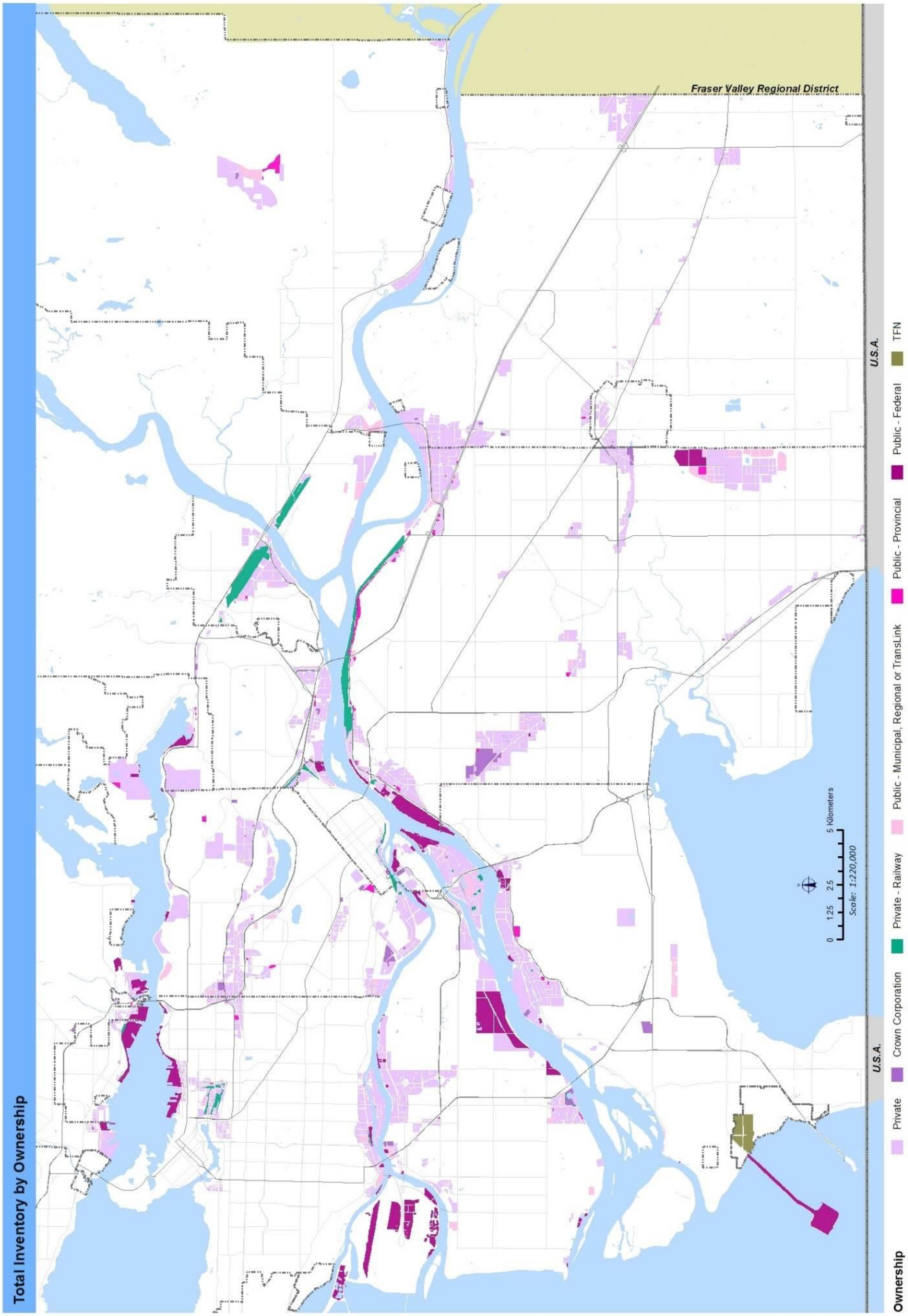


Table 4.11: Land Ownership Type (ha/ac)

Row Labels	Area_ha	Area_Acre	% of Total
Private	7,940	19,620	70%
Private - Railway	517	1,277	5%
Public - Federal	1,609	3,976	14%
Public - Provincial	183	451	2%
Public - Local Gvnt.	690	1,705	6%
Crown Corp.	263	649	2%
TFN	130	322	1%
Grand Total	**11,331**	**28,000**	**100%**

The following map shows the 2015 Inventory by land ownership type. Most of the Inventory is privately owned, shown in light pink. Federal lands (such as for the port and airport) are shown in dark pink, and private rail yards shown in green.



Total Inventory by Ownership
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Ownership
Private
Crown Corporation
Private - Railway
Public - Municipal, Regional or TransLink
Public - Provincial
Public - Federal
TFN

By land ownership type, some observations are:

- nearly all Tsawwassen First Nation industrial lands were classified as 'Vacant' as of mid-2015 (although many of these lands are in the development process);
- nearly all (96%) rail lands were 'Developed'; and
- most (84%) privately-owned lands were 'Developed'.

Table 4.12: Developed and Vacant Lands by Land Ownership Type (ha)

Row Labels	Developed	Vacant	Grand Total
Private	6,619	1,321	7,940
Private - Railway	499	18	517
Public - Federal	1,294	315	1,609
Public - Provincial	52	131	183
Public - Local Gvnt.	379	311	690
Crown Corp.	225	38	263
TFN	3	127	130
Grand Total	**9,070**	**2,261**	**11,331**

In terms of land tenure, 548 ha or 5% of the total 2015 Inventory is strata tenure. Of the 70% of the Inventory which is privately owned, 7% is strata tenure. Multiple ownership of properties can impact future redevelopment potential of the sites.

Table 4.13: Land Tenure Type by Regional Land Use Designation (ha)

Row Labels	Standard	Strata	Grand Total
Con-Rec	62		62
Rural	16		16
Agricultural	26		26
General Urban	859	33	893
Mixed Emp	2,429	212	2,641
Industrial	7,391	303	7,694
Grand Total	**10,783**	**548**	**11,331**

4.1.6 Site Sizes

Of the total 2015 Inventory, 35% is within sites that are under 2 ha (5 ac) in size, and 23% is in sites over 20 ha (50 ac). The rest of the Inventory (42%) is within sites that are 2-20 ha (5-50 ac) in size. Appendix 8 includes detailed tables. It is important to recognize that unassociated abutting sites could be consolidated to create larger developable sites to potentially accommodate larger industrial users.

Table 4.14: Site Size Distribution of Inventory (ha/ac/count)

Row Labels	Area_ha	Area_Acre	% of Total
less than 1 acre	681	1,683	6%
1.0 to 4.9 acres	3,342	8,258	29%
5.0 to 9.9 acres	1,776	4,389	16%
10.0 to 19.9 acres	1,430	3,533	13%
20.0 to 49.9 acres	1,473	3,641	13%
50.0 acres and over	2,629	6,496	23%
Grand Total	**11,331**	**28,000**	**100%**

Lot Size	Count	% Share
less than 1 acre	4,181	48%
1.0 to 4.9 acres	3,485	40%
5.0 to 9.9 acres	637	7%
10.0 to 19.9 acres	253	3%
20.0 to 49.9 acres	124	1%
50.0 acres and over	48	1%
Total Inventory	**8,728**	**100%**

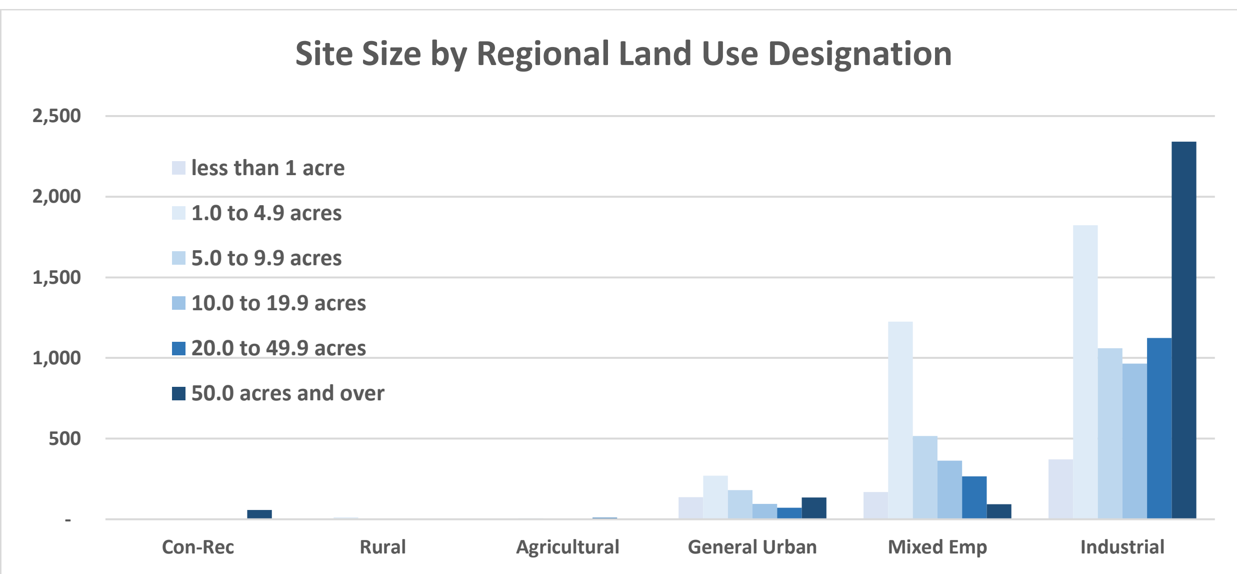
The 2015 Inventory of larger sites over 20 ha (50 ac) is geographically distributed as follows:

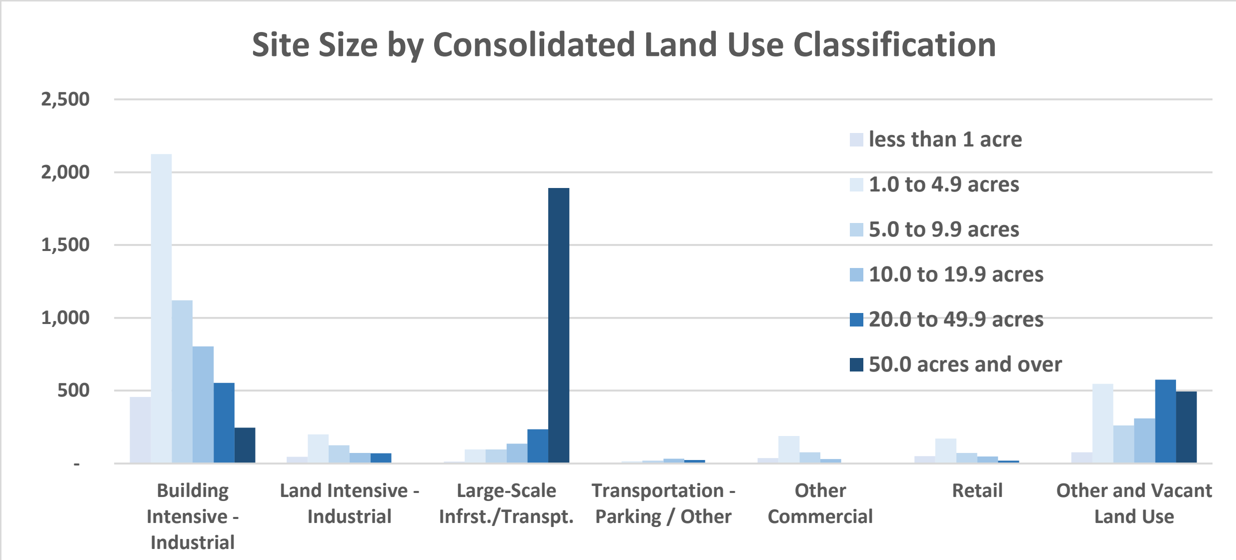
- 29% is in Richmond (including YVR)
- 20% in Delta / Tsawwassen First Nation
- 15% in North East Sector

Table 4.15: Site Size Distribution of Inventory by Sub-Region (ac/ha)

Row Labels	Burnaby/ New West	Delta/TFN	Langleys	North Shore	Northeast Sector	Richmond	Ridge - Meadows	Surrey/ White Rock	Vancouver	Grand Total
less than 1 acre	122	32	53	40	44	86	18	153	133	681
1.0 to 4.9 acres	459	378	464	72	253	473	96	953	195	3,342
5.0 to 9.9 acres	233	266	224	35	133	317	51	409	109	1,776
10.0 to 19.9 acres	214	197	137	17	121	245	96	345	57	1,430
20.0 to 49.9 acres	169	216	64	72	56	295	229	316	56	1,473
50.0 acres and over	242	509		191	586	349	253	407	91	2,629
Grand Total	**1,438**	**1,598**	**942**	**426**	**1,192**	**1,765**	**743**	**2,584**	**642**	**11,331**

Site size distribution also varies by regional land use designation and land use classification, as shown on the following figures. Larger sites tend to be regionally designated 'Industrial', and used for 'Large-Scale Infrastructure / Transportation' activities.





The variance in site sizes is also illustrated through the average site sizes. Average site sizes (consolidated properties, where applicable) vary greatly by geographic sub-region and by sector classification, as illustrated by the following observations:

- 1-2 ha in most of the sub-regions, with outliers:
  - 0.4 ha (1 ac) in Vancouver
  - 3 ha (8 ac) in Ridge-Meadows
- Ranges from 0.7 - 1.0 ha in most of the sectors, with some notable outliers:
  - 9 ha (22 ac) for 'Large-scale Infrastructure / Transportation' sector
  - 9 ha (22 ac) for 'Resource Extraction' uses
  - 46 ha (113 ac) for 'Oil Tank Farms'
  - 1.7 ha (4 ac) for the 'Vacant' sites

Table 4.16: Average Site Size by Sub-Region (ha/ac)

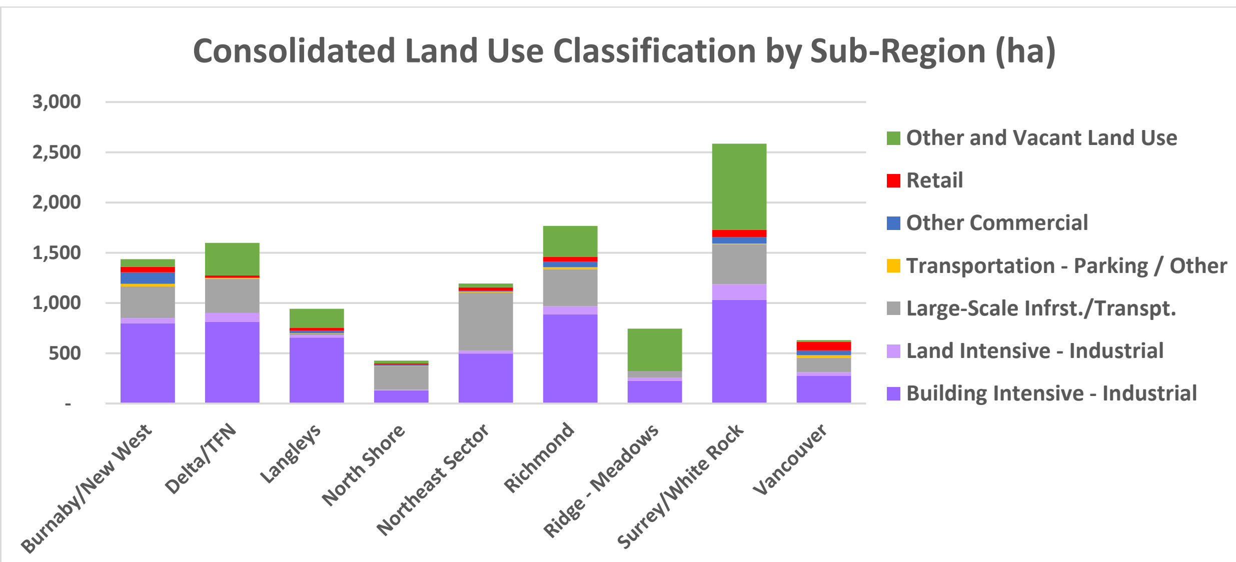
Row Labels	Count of Area_ha2	Sum of Area_ha	Average of Area_ha2	Sum of Area_Acre	Average of Area_Acre2
Burnaby/New West	1,399	1,438	1.0	3,553	2.5
Delta/TFN	700	1,598	2.3	3,948	5.6
Langleys	810	942	1.2	2,328	2.9
North Shore	442	426	1.0	1,053	2.4
Northeast Sector	596	1,192	2.0	2,947	4.9
Richmond	1,101	1,765	1.6	4,362	4.0
Ridge - Meadows	239	743	3.1	1,837	7.7
Surrey/White Rock	1,948	2,584	1.3	6,386	3.3
Vancouver	1,492	642	0.4	1,587	1.1
Grand Total	**8,727**	**11,331**	**1.3**	**28,000**	**3.2**

Table 4.17: Average Site Size by Consolidated Land Use Classification (ha/ac)

Row Labels	Count of Area_ha2	Sum of Area_ha	Average of Area_ha2	Sum of Area_Acre	Average of Area_Acre2
Building Intensive - Industrial	5,608	5,304	0.9	13,105	2.3
Land Intensive - Industrial	525	510	1.0	1,260	2.4
Large-Scale Infrst./Transpt.	268	2,477	9.2	6,121	22.8
Transportation - Parking / Other	67	94	1.4	233	3.5
Other Commercial	473	330	0.7	816	1.7
Retail	492	356	0.7	879	1.8
Other and Vacant Land Use	1,294	2,261	1.7	5,586	4.3
Grand Total	**8,727**	**11,331**	**1.3**	**28,000**	**3.2**

4.2 Findings at the Sub-Regional Level

The following section provides information and commentary to characterize the 9 geographic sub-regions. The profile or distribution of industrial land uses varies significantly by sub-region, from some inner urban areas being largely built out with proportionally more ‘General Industrial’ uses, to other areas having more ‘Large-Scale Infrastructure / Transportation’ uses and ‘Vacant’ lands.



The following are notable observations about the industrial lands in each of the sub-regions.

<u>Vancouver - 642 ha / 1,587 ac</u>

- Mostly ‘Developed’ lands
- Many ‘General Industrial’ classified lands
- Significant port terminals

<u>Burnaby / New Westminster - 1,438 ha / 3,553 ac</u>

- 252 ha ‘Oil Tank Farms’
- 91 ha ‘Office’
- 77 ha ‘Vacant’

North East Sector (Coquitlam, Port Coquitlam, Port Moody) - 1,192 ha / 2,947 ac
- 144 ha rail yards – in Port Coquitlam
- 389 ha 'Oil Tank Farms' – in Port Moody

Pitt Meadows / Maple Ridge - 743 ha / 1,840 ac
- 269 ha 'Vacant' land
- Much of the 'Vacant' land is located in north-east Maple Ridge, which has limited accessibility

North Shore (North Vancouver City, North Vancouver District) - 426 ha / 1,053 ac
- 152 ha port terminals
- Limited 'Vacant' land supply

Richmond (including YVR Sea Island) - 1,765 ha / 4,362 ac
- The 2015 Inventory does not include certain lands in Richmond City Centre that are designated 'General Urban' and 'Industrial-Reserve' in the City Centre Area Plan
- Includes industrial lands at YVR International Airport
- Includes notable retail sites within industrial areas
- 307 ha 'Vacant' (77 ha vacant port lands; 93 ha vacant YVR airside / groundside lands, and 51 ha as vacant lands)

Delta / Tsawwassen First Nation - 1,598 / 3,948 ac
- Many industrial lands on Annacis Island and River Road area / corridor
- Some of the lands impacted by the new South Fraser Perimeter Road (SFPR), and are vacant and in the process of redeveloping
- Roberts Bank Terminal is a significant part of the Inventory (244 ha) as 'Developed Port Terminal'
- 326 ha 'Vacant' (TFN has a large block of vacant lands (127 ha); 83 ha peat extraction site in central Delta)

Surrey - 2,584 ha / 6,386 ac
- Surrey has the largest amount of industrial lands in the region
- Major industrial areas include: Newton (including BC Hydro electrical sub-station lands), South Westminster, Port Kells, Campbell Heights
- 857 'Vacant' (522 ha vacant land; 131 ha 'Agriculture'; 181 ha 'Residential')

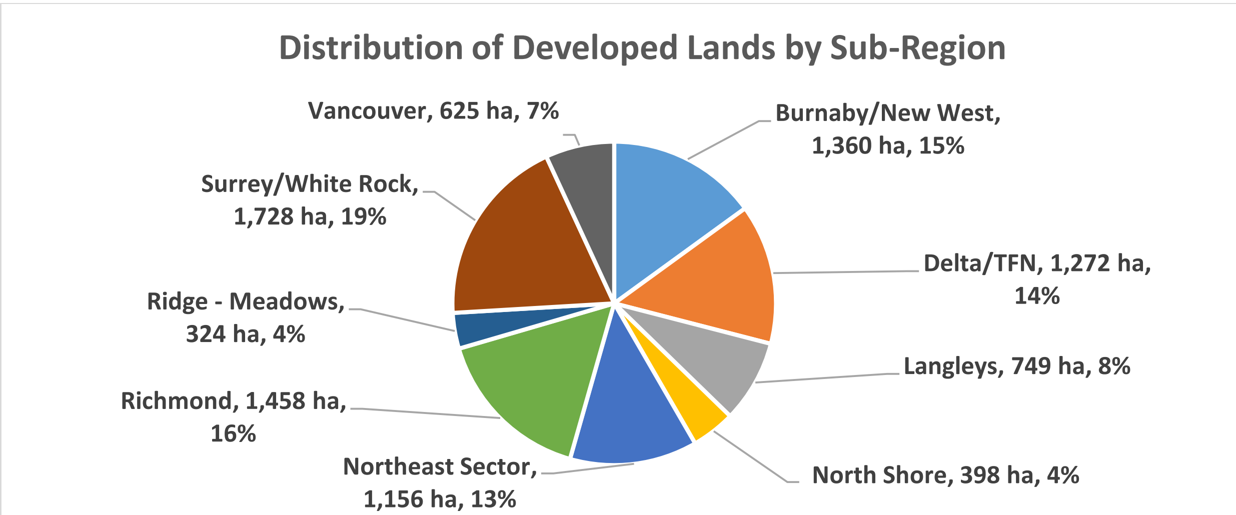
Langleys (City and Township) - 942 ha / 2,328 ac
- Port Kells area is mostly 'Developed'
- Gloucester Estates is mostly 'Developed' as 'General Industrial'
- Smaller industrial sites along Fraser Highway
- Vacant block of land around Highway 1 and 200 Street interchange

4.3 'Developed' Regional Inventory

This section documents the 2015 Inventory for 'Developed' lands (see Section 2.1), which comprise 80% of the Inventory or 9,071 ha (22,414 ac).

4.3.1 Geographic Sub-Regions

Of the 2015 Inventory of 'Developed' lands in the region, much are located in Surrey (19%), followed by Richmond (16%).



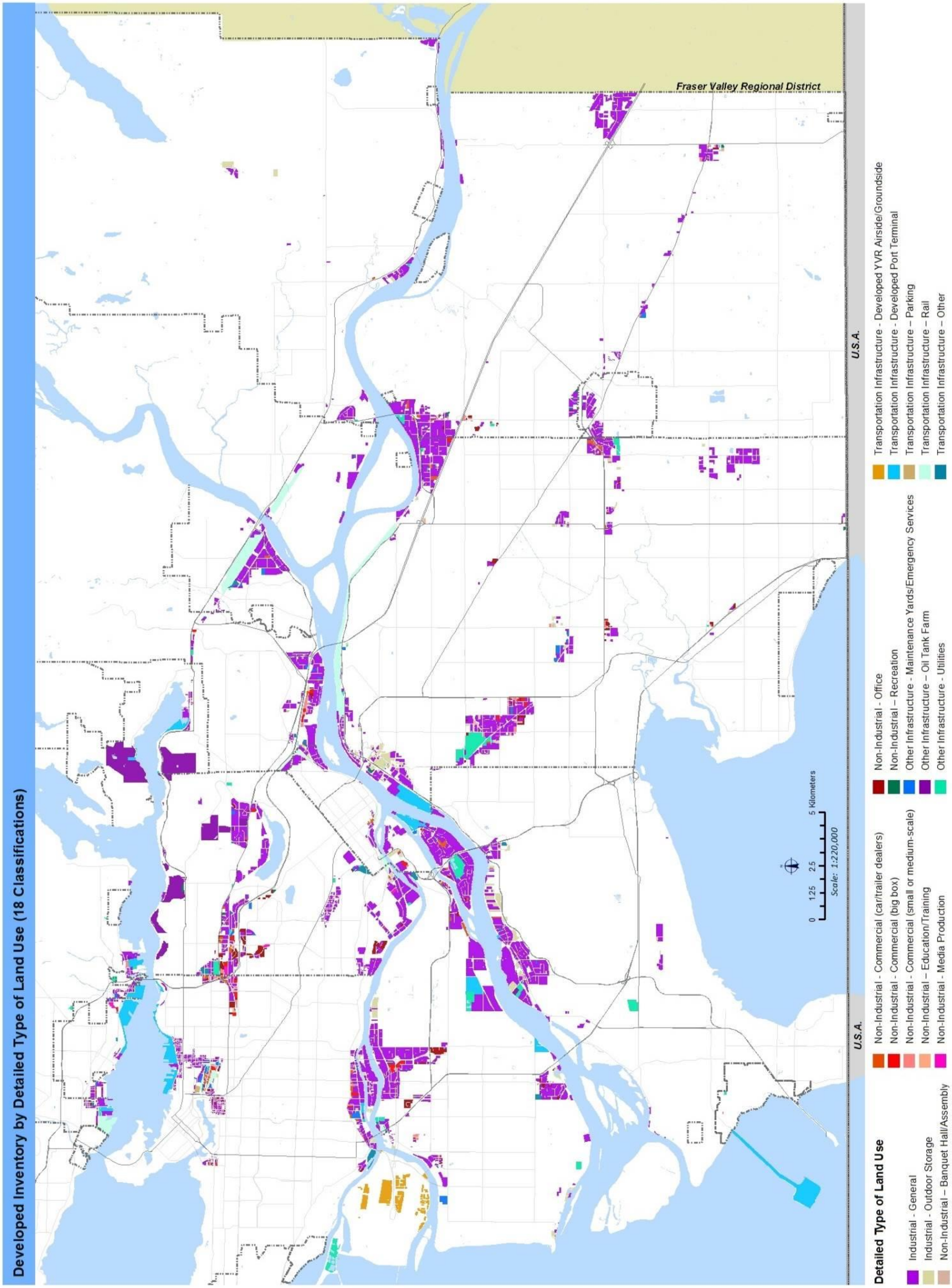
4.3.2 Land Use Classifications

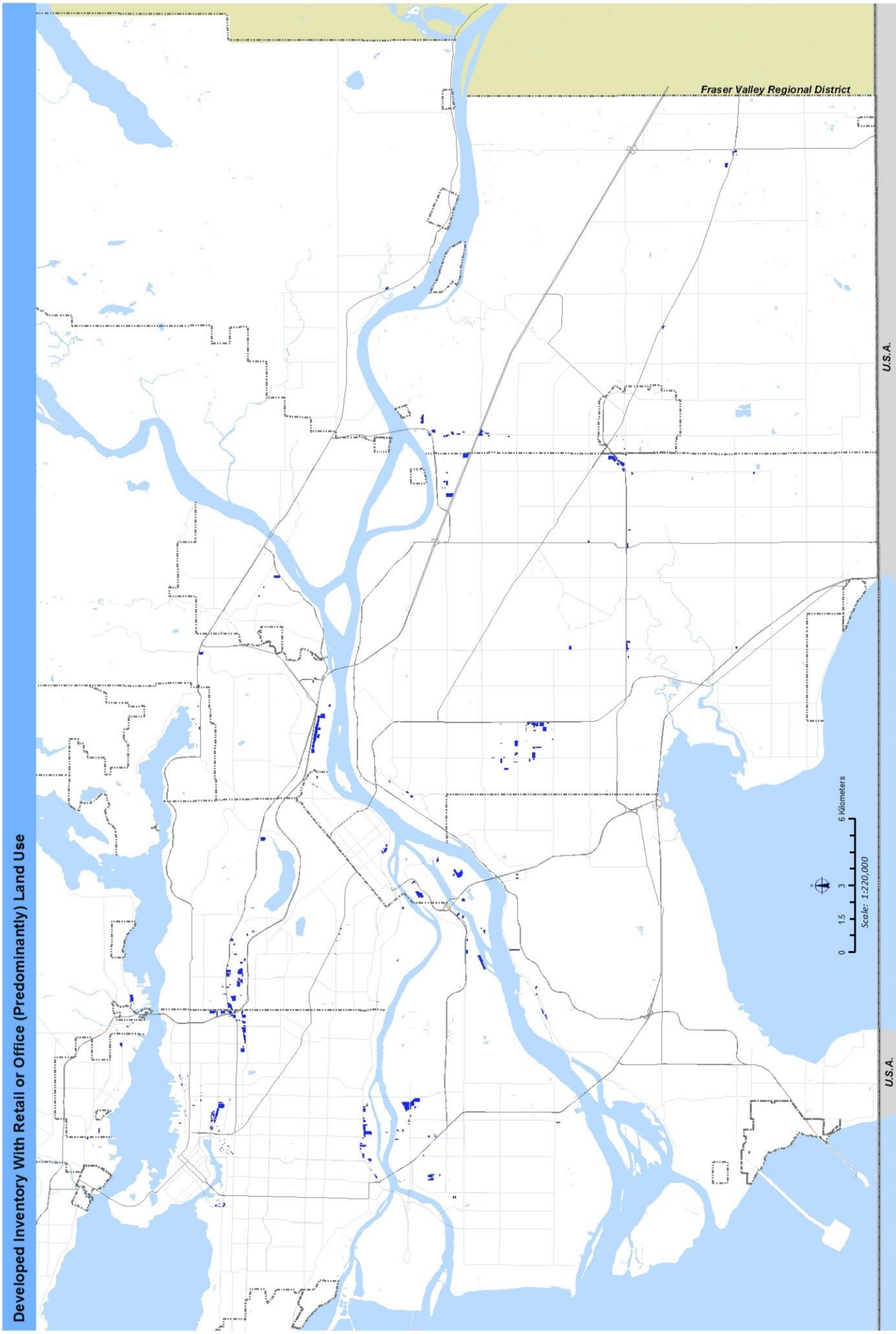
Of the 'Developed' 2015 Inventory, and categorized by the 7 rolled-up land use classifications, 58% is 'General Industrial' and 27% is 'Large-Scale Infrastructure / Transportation'. The other land use classifications make up a relatively small part of the Inventory. The following table provides this information as well as the classification by sub-region.

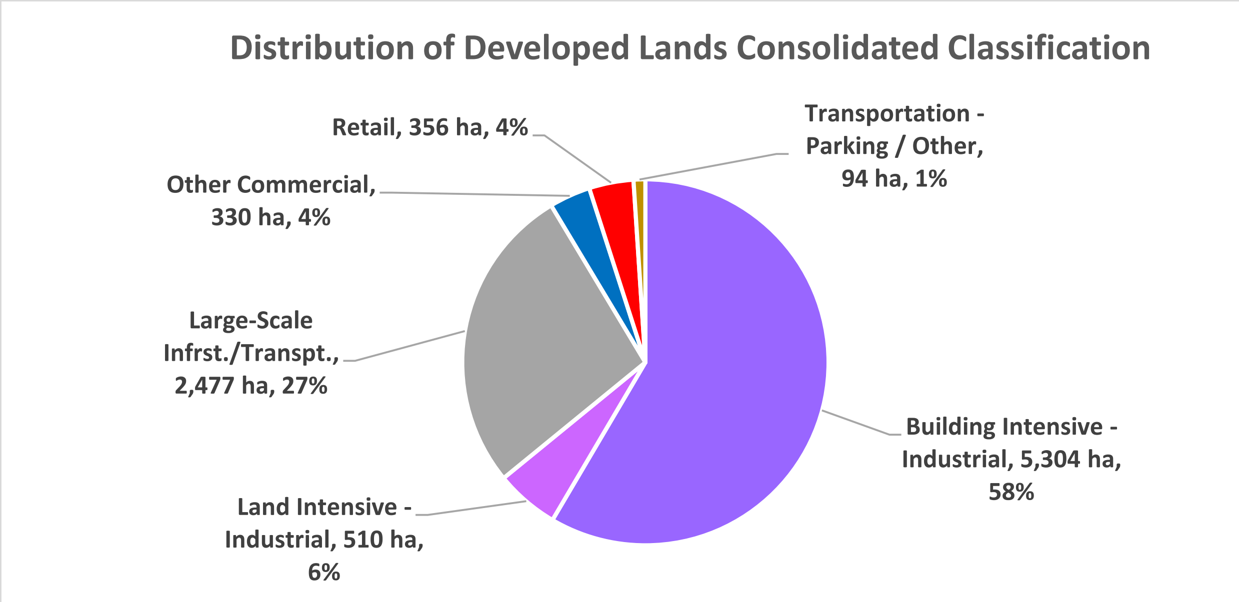
Table 4.18: Developed Inventory by Sub-Region and Consolidated Land Use Classification (ha)

Row Labels	Building Intensive - Industrial	Land Intensive - Industrial	Large-Scale Infrst./Transpt.	Transportation - Parking / Other	Other Commercial	Retail	Grand Total	% of Total
Burnaby/New West	799	50	314	27	116	55	1,360	15%
Delta/TFN	809	91	341	5	4	22	1,272	14%
Langleys	655	24	18	1	26	25	749	8%
North Shore	130	6	236	3	12	10	398	4%
Northeast Sector	496	28	582	9	5	37	1,156	13%
Richmond	886	81	367	20	56	47	1,458	16%
Ridge - Meadows	223	34	65			2	324	4%
Surrey/White Rock	1,032	156	398	4	63	74	1,728	19%
Vancouver	273	39	156	25	48	84	625	7%
Grand Total	**5,304**	**510**	**2,477**	**94**	**330**	**356**	**9,071**	**100%**
% of Total	**58%**	**6%**	**27%**	**1%**	**4%**	**4%**	**100%**	

The following map shows the 'Developed' lands by detailed land use classification. Much of the 2015 Inventory is 'General Industrial', shown as purple, as well as large infrastructure / utility sites and port terminals. The subsequent map shows 'Commercial' and 'Retail' uses occurring on industrial lands.


Developed Inventory by Detailed Type of Land Use (18 Classifications)
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Detailed Type of Land Use
Industrial - General
Industrial - Outdoor Storage
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Other Infrastructure - Maintenance Yards/Emergency Services
Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
Transportation Infrastructure - Developed YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other


Developed Inventory With Retail or Office (Predominantly) Land Use
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.5 3 6 Kilometers
Scale: 1:220,000
Retail
Office (Predominantly)
Developed Inventory With Retail or Office



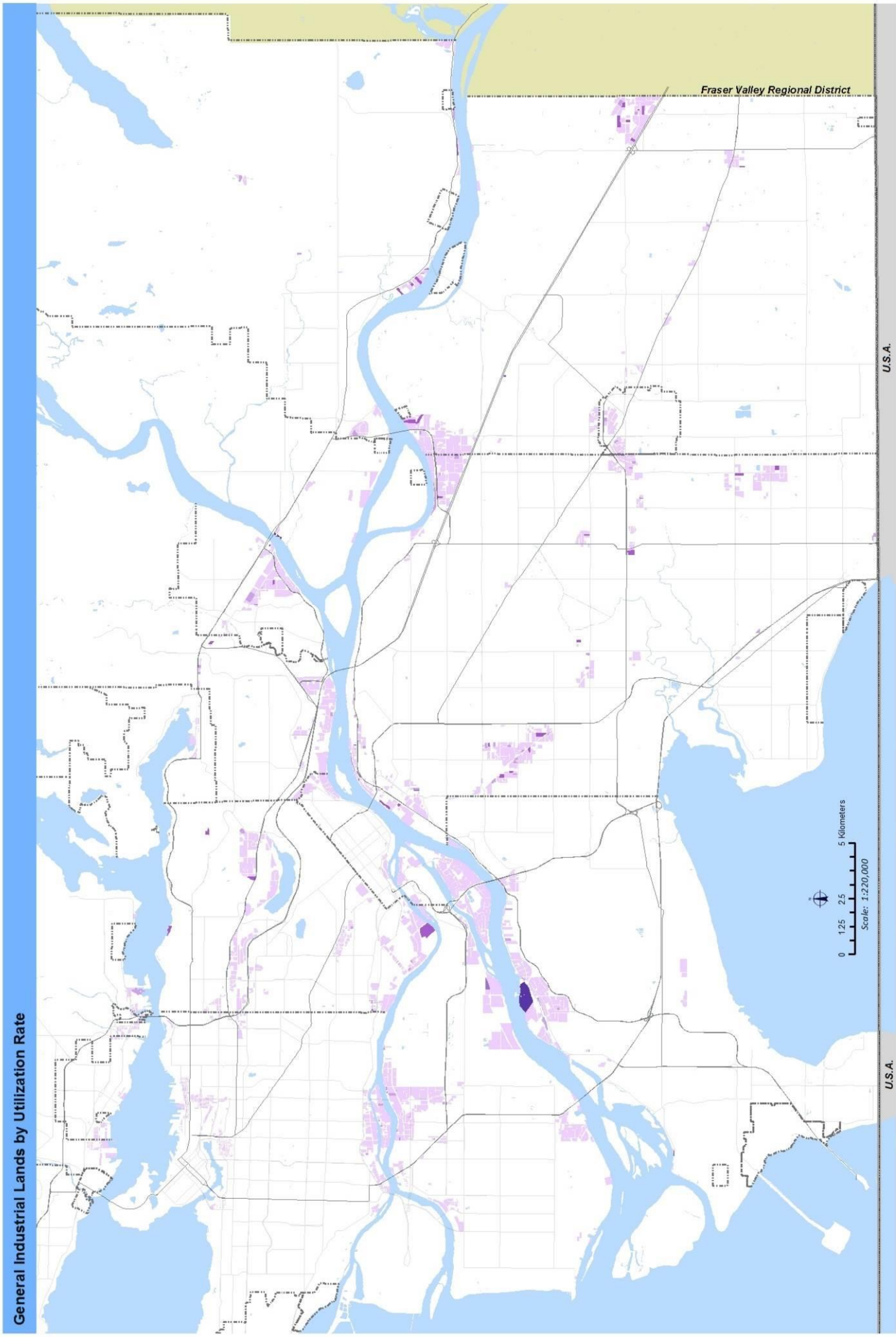
4.3.3 Utilization

The following table shows that of the 5,304 ha (13,106 ac) of land classified as 'General Industrial', 93% is 80-100% utilized. Utilization is defined as the approximate percentage of the site covered by permanent improvements or that are clearly utilized with associated uses, including outdoor parking, loading, and storage (see Section 3.5). It is important to note that utilization is no equivalent to building floor area ratio. Many industrial users require parking and loading areas to support their activities, in addition to the actual building.

Table 4.19: 'General Industrial' Lands by Utilization Rate (ha)

Industrial -	5,304	% of Total
(1% to 20%)	62	1%
(20% to 40%)	19	0%
(40% to 60%)	133	3%
(60% to 80%)	160	3%
(80% to 100%)	4,930	93%
Grand Total	**5,304**	**100%**

The following map shows the 'General Industrial' lands by utilization rate. The few darker properties are the ones with lower utilization levels. This analysis demonstrates that most 'General Industrial' lands are substantially utilized, with limited immediate opportunity for redevelopment and intensification. Nevertheless, as these lands redevelop over the medium and long term, there will be potential to densify and intensify.


General Industrial Lands by Utilization Rate
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Utilization Rate
Less than 20%
20% to 40%
40% to 60%
60% to 80%
80% and Over

4.3.4 Site Size

The table below shows 'Developed' lands by site size. There are many sites (31%) between 0.4 and 2.0 ha (1-5 ac) in size, and also a significant amount (24%) comprised of sites over 20 ha (50 ac) in size. By sector, the larger (20 ha / 50 ac and over) 'Developed' sites are mostly in the 'Large-Scale Infrastructure / Transportation' land use classification.

Table 4.20: Distribution Size of Developed Sites (ha/ac/count)

Row Labels	Area_ha	Area_Acre	% of Total
less than 1 acre	606	1,496	7%
1.0 to 4.9 acres	2,794	6,905	31%
5.0 to 9.9 acres	1,516	3,747	17%
10.0 to 19.9 acres	1,121	2,769	12%
20.0 to 49.9 acres	898	2,219	10%
50.0 acres and over	2,136	5,277	24%
Grand Total	**9,071**	**22,414**	**100%**

Lot Size	Count	% Share
less than 1 acre	3,617	49%
1.0 to 4.9 acres	2,962	40%
5.0 to 9.9 acres	544	7%
10.0 to 19.9 acres	200	3%
20.0 to 49.9 acres	76	1%
50.0 acres and over	35	0%
Developed Inventory	**7,434**	**100%**

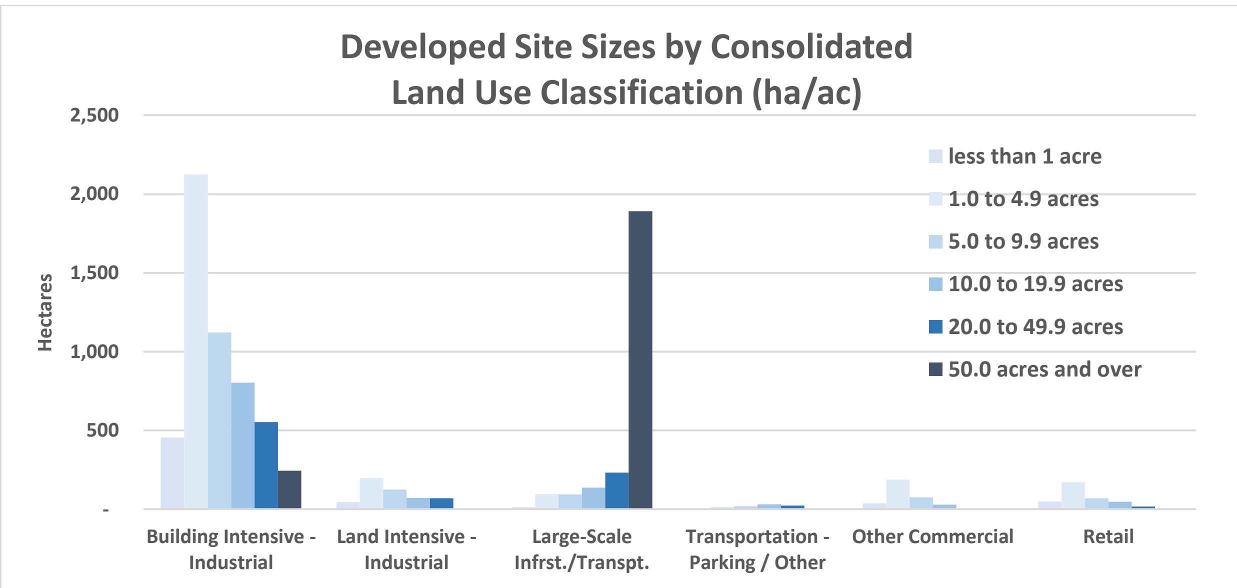


Table 4.21: Site Size Distribution of Developed Lands by Consolidated Land Use Classification (ha/ac)

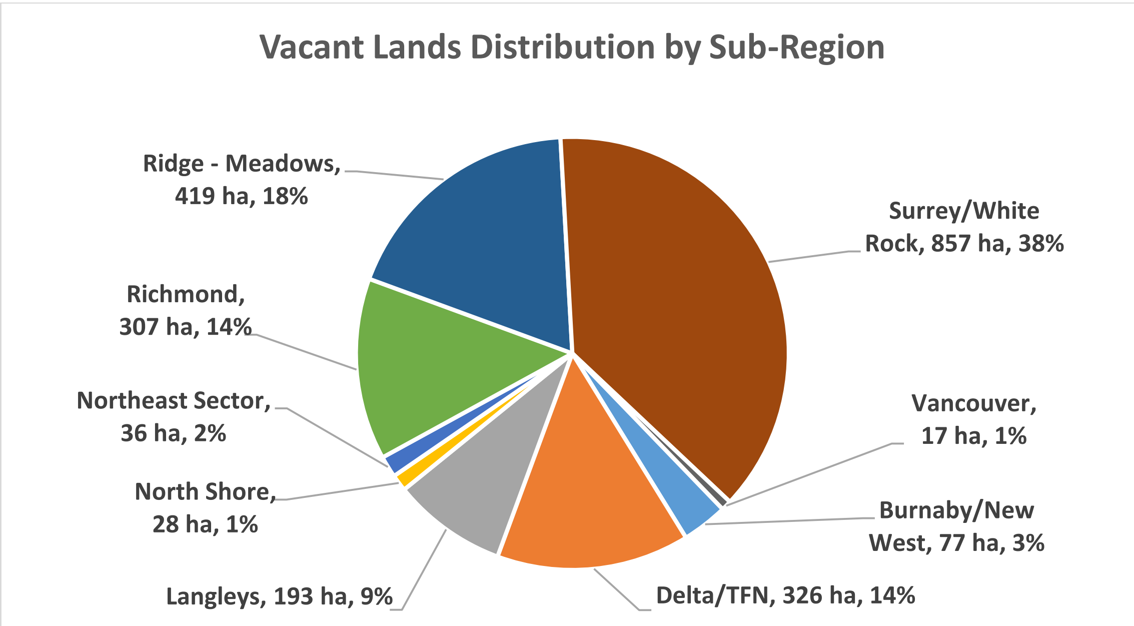
Row Labels	less than 1 acre	1.0 to 4.9 acres	5.0 to 9.9 acres	10.0 to 19.9 acres	20.0 to 49.9 acres	50.0 acres and over	Grand Total
Building Intensive - Industrial	456	2,125	1,121	804	554	244	5,304
Land Intensive - Industrial	46	198	124	71	70		510
Large-Scale Infrst./Transpt.	12	98	105	136	233	1,891	2,477
Transportation - Parking / Other	5	14	19	32	23		94
Other Commercial	37	188	75	30			330
Retail	49	171	71	47	18		356
Grand Total	**606**	**2,794**	**1,516**	**1,121**	**898**	**2,136**	**9,071**

4.4 'Vacant' Regional Inventory

This section documents the 2015 Inventory for 'Vacant' lands (see Section 2.1), which comprise 20% of the total Inventory or 2,261 ha (5,586 ac). As previously stated, the category 'Vacant' includes lands that are completely vacant, as well as those that have non-industrial uses with the potential to redevelop to industrial uses (e.g. 'Residential' or 'Agriculture').

4.4.1 Geographic Sub-Regions

By sub-region, for the 'Vacant' 2015 Inventory, 38% is located in Surrey, 18% is in Ridge – Meadows, 14% is in Richmond, and 14% is in Delta / Tsawwassen First Nation.



Specific notable major 'Vacant' lands as of mid-2015 include:

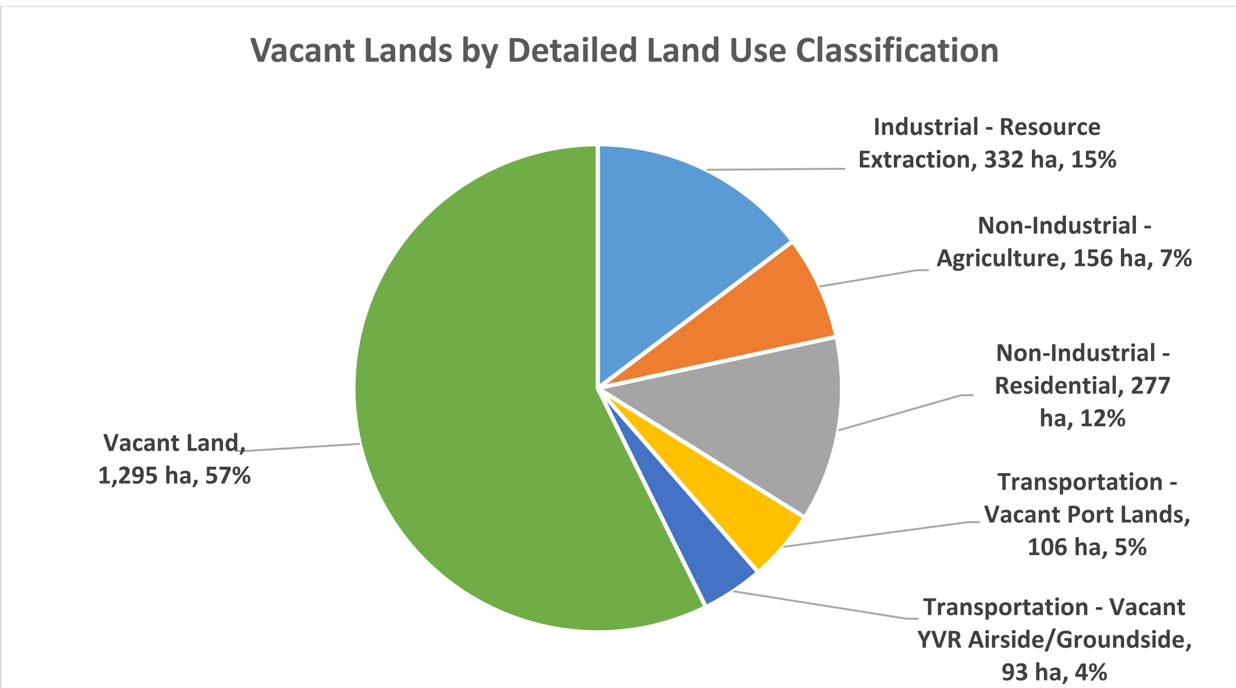
- The Tsawwassen First Nation lands that abut the Roberts Bank Terminal and that are accessible by the new South Fraser Perimeter Road (SFPR);
- Campbell Heights in south-east Surrey, which is developing;
- North-east Maple Ridge, which is located far from transportation infrastructure; and
- Some smaller sites in Richmond, Delta, Surrey, Langley, and Pitt Meadows.

Table 4.22: Vacant Lands by Sub-Region (ha/ac)

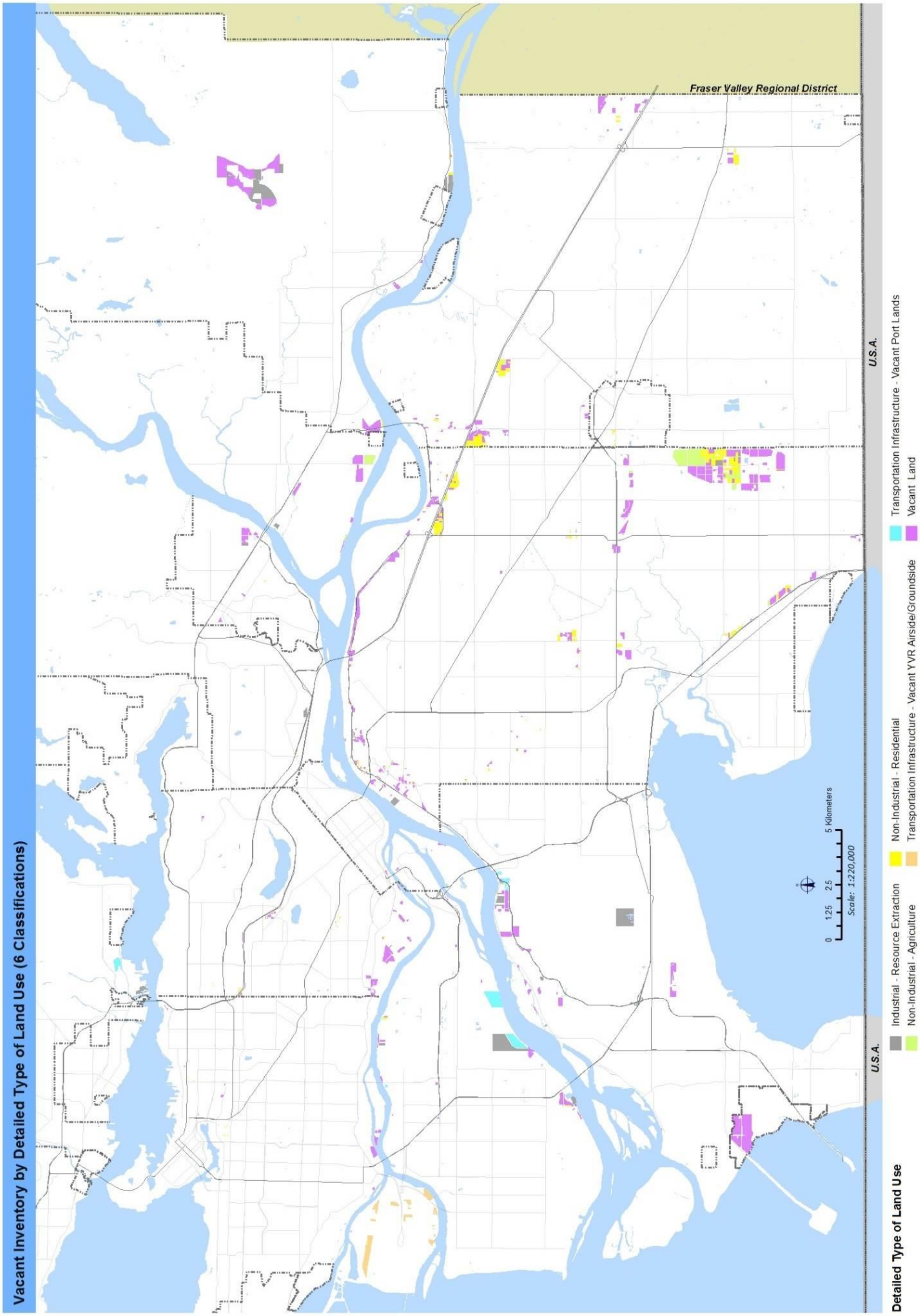
Row Labels	Sum of Area_ha	Sum of Area_Acre	% of Total
Burnaby/New West	77	191	3%
Delta/TFN	326	805	14%
Langleys	193	478	9%
North Shore	28	70	1%
Northeast Sector	36	90	2%
Richmond	307	758	14%
Ridge - Meadows	419	1,035	19%
Surrey/White Rock	857	2,117	38%
Vancouver	17	42	1%
Grand Total	**2,261**	**5,586**	**100%**

4.4.2 Land Use Classification

Of the six types of 'Vacant' lands, over half (57%) are completely vacant, 'Resource Extraction' comprises 15%, 'Residential' 12%, and 'Agriculture' 7%. These lands offer future opportunities for industrial development.

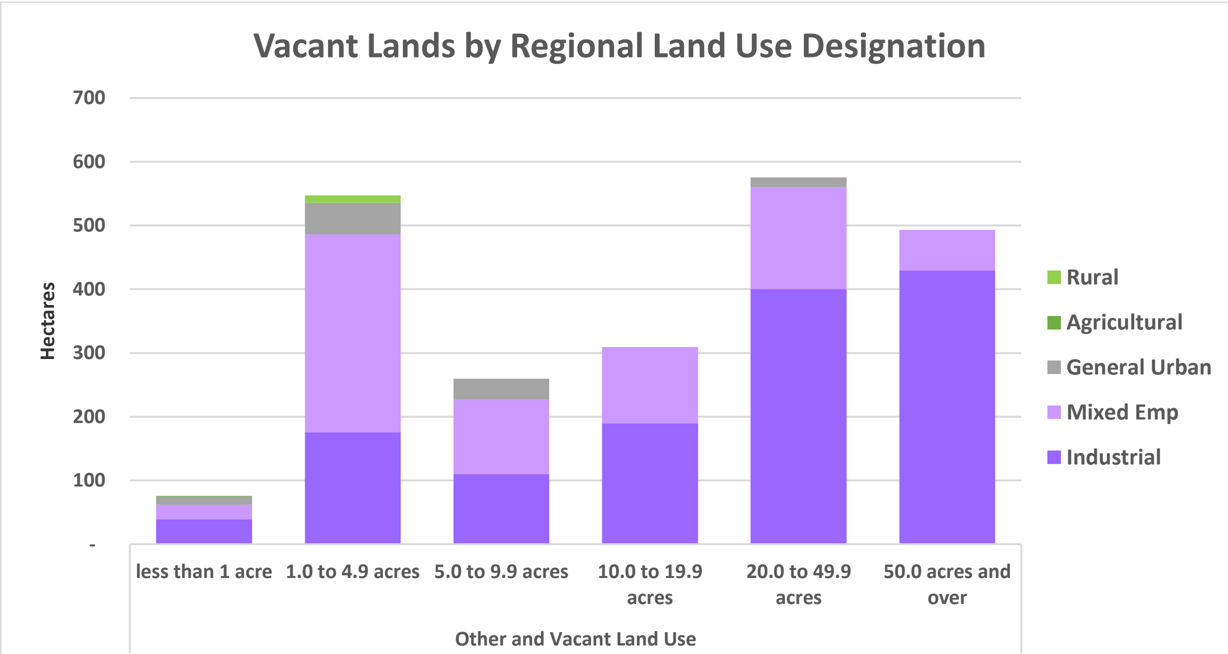


The following map shows the 'Vacant' lands, by the six types of vacancy. The lands are distributed throughout the region, with large resource extraction sites in Richmond, Delta, and Maple Ridge, and numerous residential properties in Surrey and Langley.

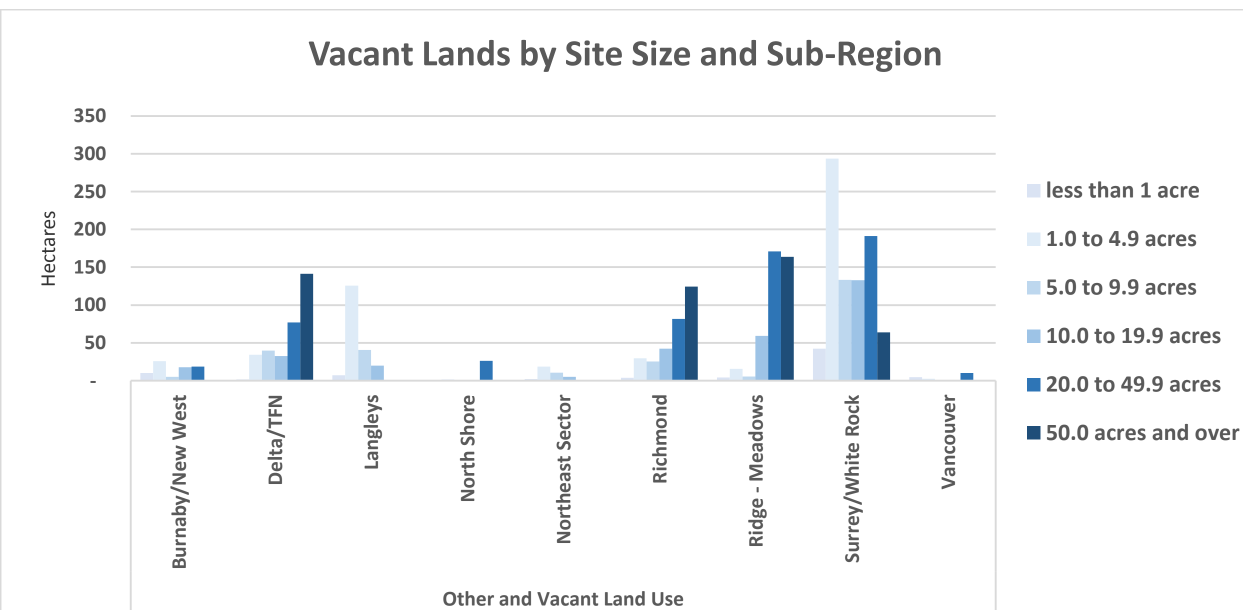

Vacant Inventory by Detailed Type of Land Use (6 Classifications)
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Detailed Type of Land Use
Industrial - Resource Extraction
Non-Industrial - Agriculture
Non-Industrial - Residential
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Vacant Port Lands
Vacant Land

4.4.3 Site Size

For the ‘Vacant’ lands (2,261 ha), the following charts show the distribution by regional land use designation and land ownership type (detailed tables in Appendix 9). Larger sites tend to be regionally designated as ‘Industrial’, whereas mid-sized sites are ‘Mixed Employment’, and smaller sites have a higher proportion of ‘General Urban’ designation.

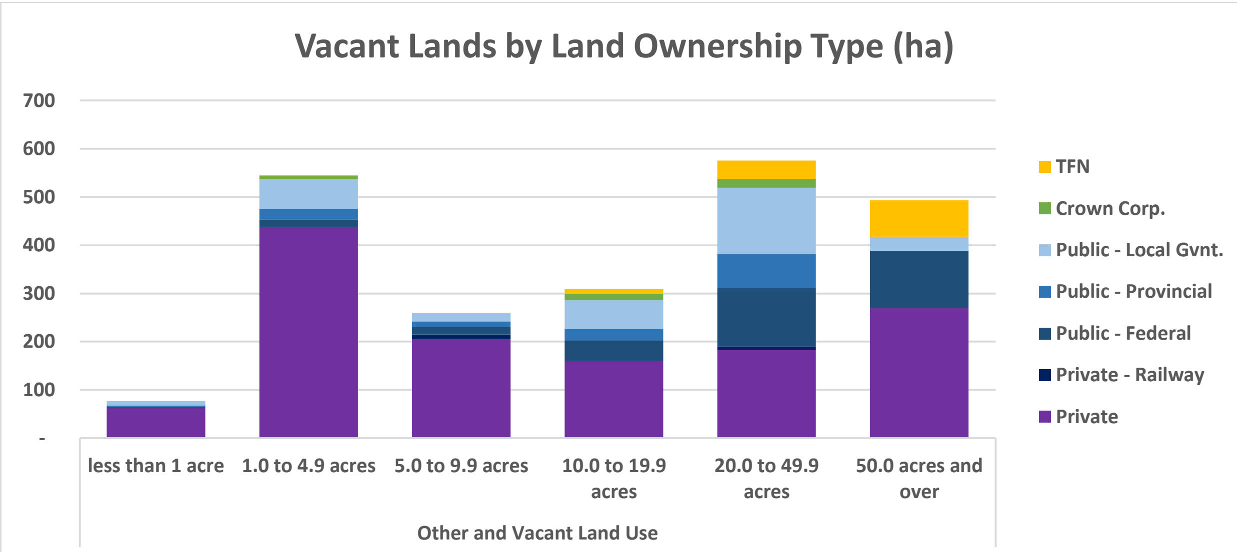


The following figure shows the distribution of ‘Vacant’ lands by land ownership type and sub-region in terms of site size. Many lands are within the smaller 0.4 to 2.0 ha (1 to 5 ac) size and the larger 20+ ha (50+ ac) size. Most of the larger ‘Vacant’ industrial sites are located in Surrey, Richmond, Delta / Tsawwassen First Nation, and Ridge - Meadows.

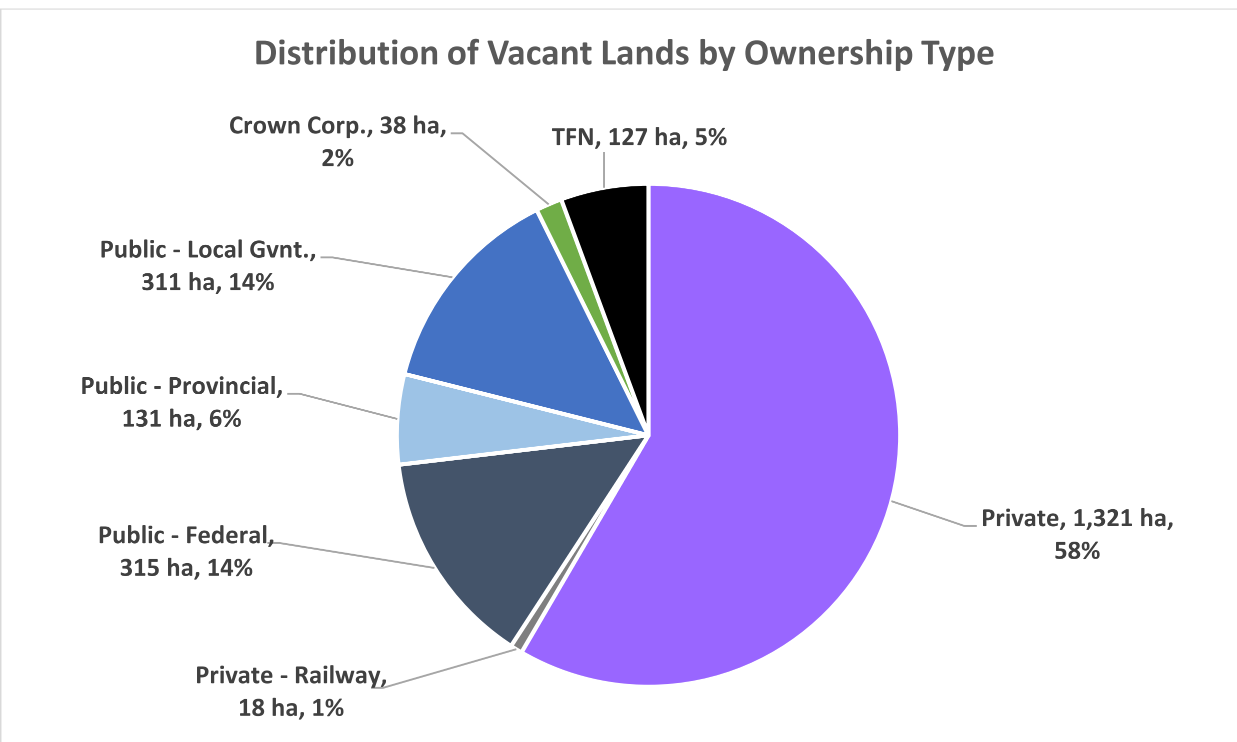


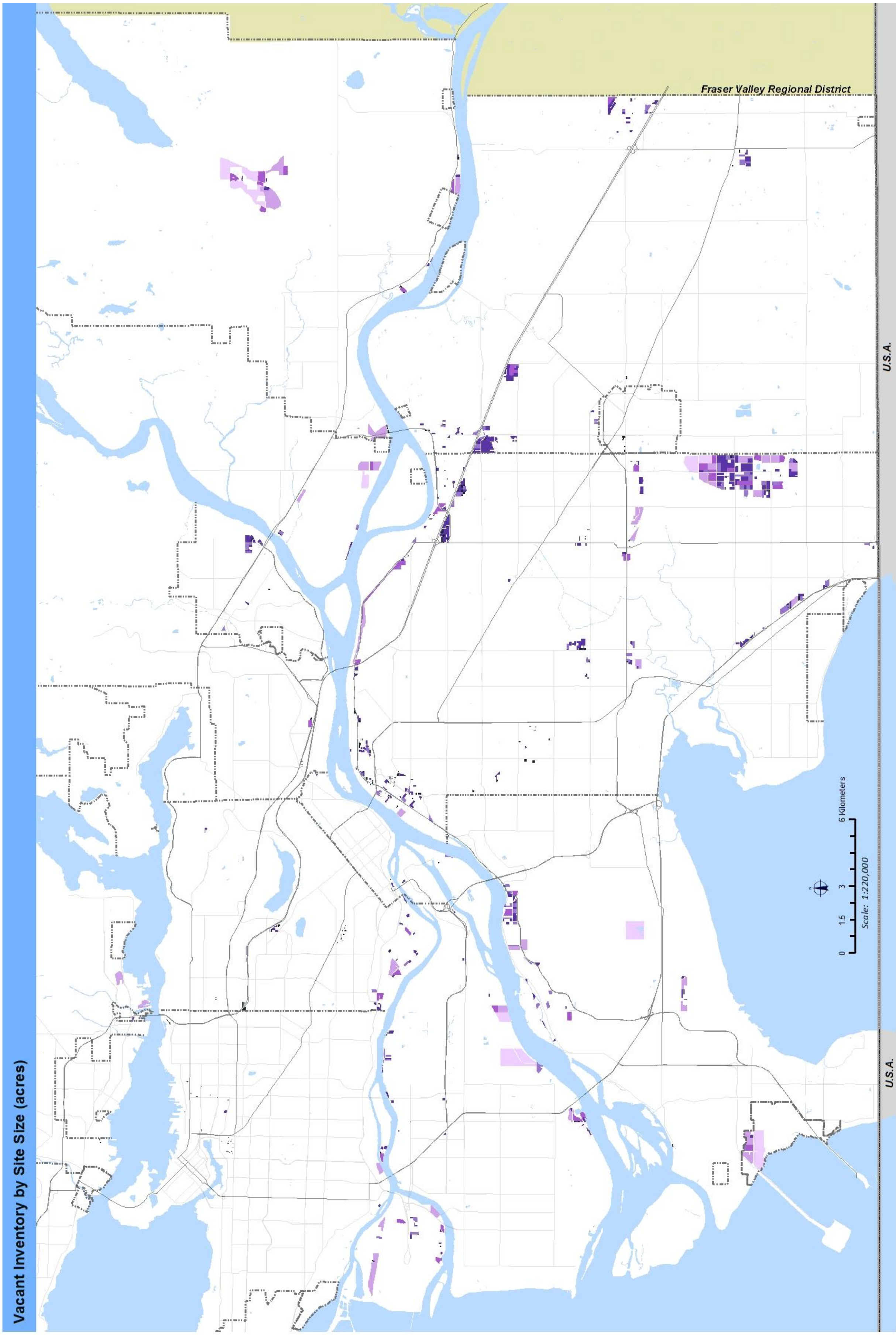
4.4.4 Land Ownership Type

In most size categories, most lands are privately owned, however for the 8.0 to 20.0 ha (20-50 ac) size, there are notably more local government and federal government owned lands. Particularly of note, of the 1,320 ha of 'Vacant' privately-owned lands, 270 ha (20%) are large sites (20+ ha or 50+ ac) and of the 760 ha of 'Vacant' government-owned lands, 150 ha (20%) are large sites (20+ ha or 50+ ac).



In terms of distribution of 'Vacant' lands by land ownership type, 58% are privately owned, 14% are owned by the federal government, and another 14% are owned by local governments.




Vacant Inventory by Site Size (acres)
Fraser Valley Regional District
U.S.A.
U.S.A.
Scale: 1:220,000
0 1.5 3 6 Kilometers
Vacant Site Size
less than 1 acre
1.0 to 4.9 acres
5.0 to 9.9 acres
10.0 to 19.9 acres
20.0 to 49.9 acres
50.0 acres and over

5 Inventory Change Over Time

The Metro Vancouver 2015 Industrial Lands Inventory was prepared to allow for comparison with past Inventories (2005 and 2010). It is important to note that the Inventory uses various data sources and professional judgment to estimate the Inventory as of a specific point in time. The 2015 Inventory results should not be compared at face value with published results from previous 2005 and 2010 Inventories (now revised).

The revised 2005 and 2010 Inventory numbers included within this report have been adjusted from previously published reports to reflect the application of the edits to the methodology, and are thus more comparable with the 2015 Inventory results (see Appendix 11 for greater details).

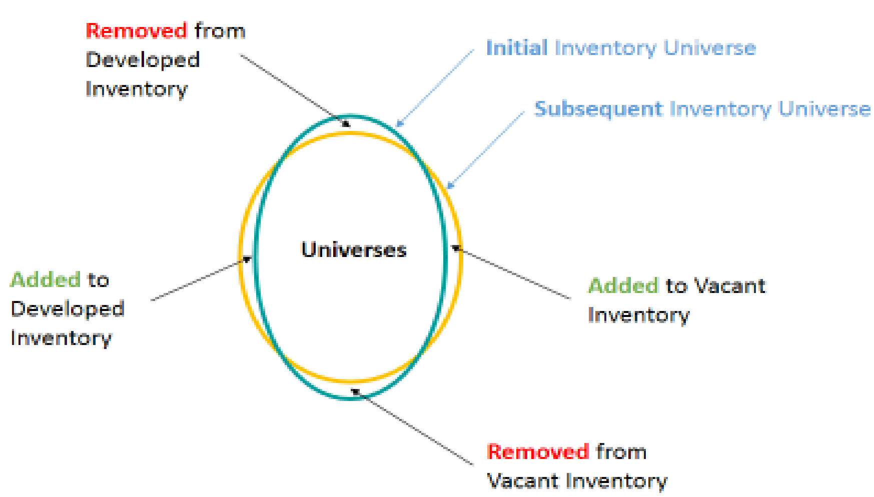
5.1 Components of Change

There are two sets of 'moving parts' associated with comparing multiple Inventories:

- Changes in total Inventory ('Developed' and 'Vacant' sub-totals) between the periods; and
- Lands that became 'Developed' (i.e. absorbed) or became 'Vacant' between the periods.

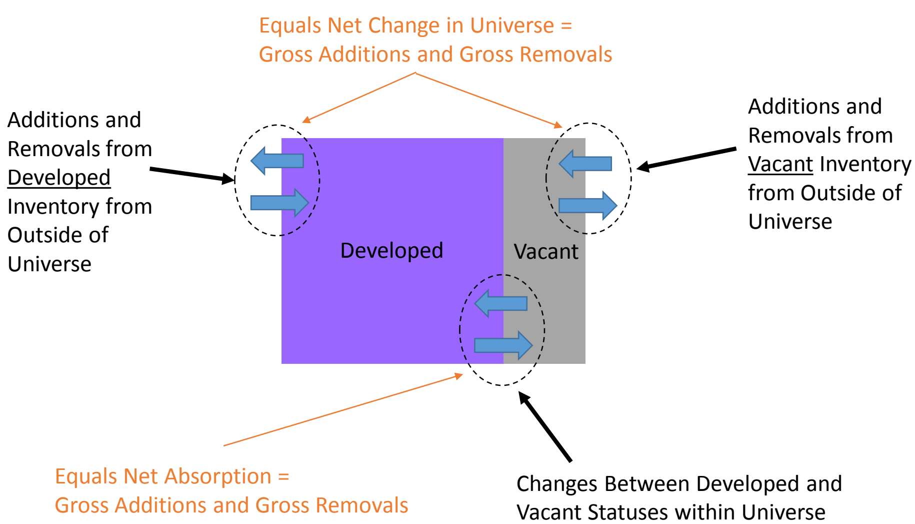
In terms of net changes, there are both significant gross additions to the Inventory and significant gross removals, as well as many other smaller changes. The following figure shows that most of the 'universe' or scope of lands included in the Inventory remained constant between Inventories, however there were some changes. Some lands were added to, and some lands were removed from, the preceding Inventory. These land additions and removals included both 'Developed' and 'Vacant' lands.

Conceptual Illustration of Changes in the Inventory Universes

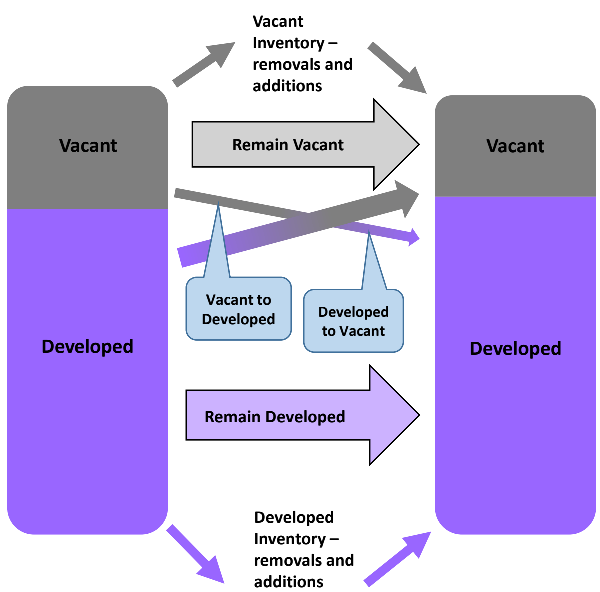


In terms of changes in Inventory composition ('Developed' and 'Vacant' status) between periods, the following figures show that most lands move forward with their earlier classification, with some properties converting between classifications and other properties added and removed from the Inventory.

Conceptual Illustration of Changes in Developed and Vacant Areas



Conceptual Illustration of Changes in Composition



5.2 Revised 2005 and 2010 Inventories

Along with preparation of the detailed 2015 Inventory, some refinements were made to the 2005 and 2010 Inventories to maintain consistency and allow for comparison with the 2015 results. All numbers in this report reflect the *revised* 2005 and 2010 Inventories.

The revised 2005 and revised 2010 Inventory results reflect adjustments (both inclusions and exclusions) made to the original published Inventories that account for and neutralize varying municipal staff interpretation in comparison to the 2015 Inventory. As well, the revised 2005 figures reflect the inclusion of 385 ha (954 ac) of 'Developed' lands (at Port Coquitlam and Surrey intermodal yards, plus sewerage treatment plants at Iona and Annacis Island) and the inclusion of 66 ha (163 ac) of 'Vacant' lands (at Delta's peat bog). Further, the revised 2005 and 2010 Inventory results reflect continued refinements to more accurate shoreline boundaries and other alignments reflected in the 2015 Inventory.

Based on the refined data analysis and definitions applied to the past Inventories, the revised Inventory estimates are: 11,391 ha (28,147 ac) for 2005, and 11,682 ha (28,866 ac) for 2010. In both cases, approximately three-quarters of the Inventory was 'Developed' and one-quarter was 'Vacant'.

Table 5.1: Revised 2005 and 2010 Industrial Lands Inventories Summaries (ha/ac)

Hectares	2005	2010
Developed	8,396	8,908
Vacant	2,995	2,774
Total	**11,391**	**11,682**
% vacant	*26%*	*24%*

Acres	2005	2010
Developed	20,747	22,012
Vacant	7,401	6,855
Total	**28,147**	**28,866**
% vacant	*26%*	*24%*

5.3 Geographic Areas of Change from 2010 to 2015

Notable areas of change in terms of additions and removals between the 2010 and 2015 Inventories are identified. These changes in the universe of industrial lands are independent of their land use status (i.e. 'Developed' or 'Vacant').

Some 147 ha (362 ac) of land were added to the Inventory, mostly in Surrey, Langley and Maple Ridge, and some 496 ha (1,226 ac) were removed from the Inventory over the 2010 to 2015 period, providing for a net reduction of 350 ha (865 ac).

Of note, since mid-2011 when *Metro 2040* was adopted to 2015, there has been a net reduction or conversion of 62 ha (153 ac) of 'Industrial' and 'Mixed Employment' regionally designated lands. Much of this change was from adjustments / refinements associated with processing municipal Regional Context Statements received after the adoption of the regional growth strategy and was anticipated as part of the process of aligning municipal and regional plans.

Table 5.2: Notable Industrial Land Additions by Major Industrial Area, 2010-2015

Major Industrial Areas	Area (Ha)	Area (Ac)
Surrey (Anniedale)	59	146
Maple Ridge (256th Street Industrial Area)	58	143
Langley Township (Willoughby/Northwest Langley)	15	38
Surrey (Panorama Ridge)	7	18
Surrey (Campbell Heights)	4	11
Surrey (Douglas Crossing)	2	6
Total Acres	**147**	**362**

Table 5.3: Notable Industrial Land Removals by Major Industrial Area, 2010-2015

Major Industrial Areas	Area (Ha)	Area (Ac)
Surrey (South Westminster)	63	155
Langley Township (Willoughby/Northwest Langley)	44	109
Maple Ridge (256th Street Industrial Area)	42	105
Surrey (Campbell Heights)	42	103
Richmond (YVR)	30	73
Coquitlam (Pacific Reach/Cape Horn)	29	71
Richmond (City Centre)	26	63
Port Coquitlam (Maryhill/Lougheed)	21	52
Delta (Nordel)	19	46
Langley Township (Langley Town Centre)	16	38
Surrey (East Clayton)	15	38
Burnaby (Brentwood)	12	31
North Shore	10	25
Surrey (Morgan Creek)	10	24
Burnaby (Kingsway/Beresford)	6	15
Other	112	278
TOTAL	**496**	**1,226**

Of the 496 ha (1,226 ac) of lands removed from the Inventory between 2010 and 2015, 67 ha (165 ac) or 14% were located within regionally identified Urban Centres.

Table 5.4: Notable Industrial Land Removals by Municipality, 2010-2015

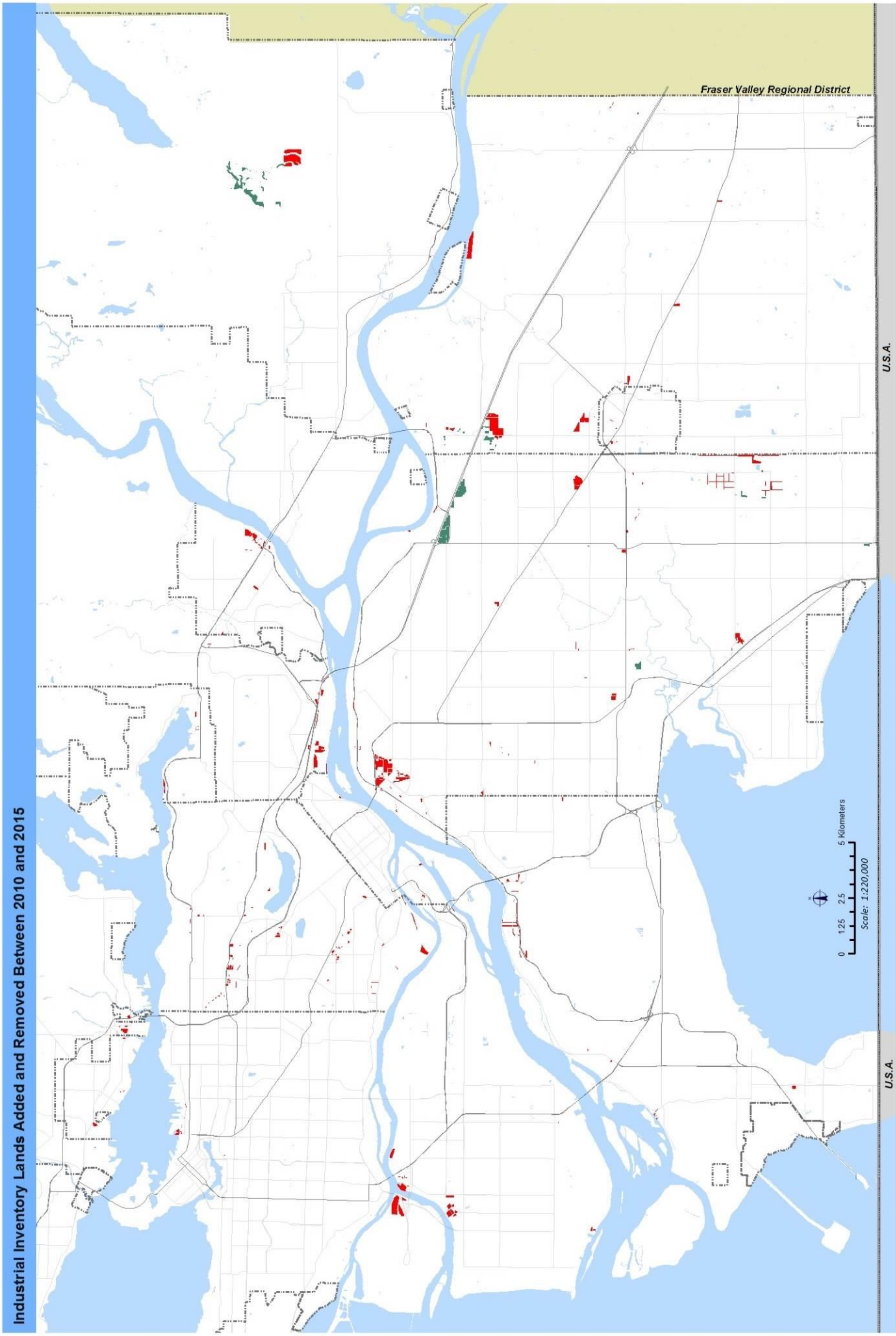
Major Industrial Areas	Area (Ha)	Area (Ac)
Surrey	154	381
Langley Township	93	231
Richmond	63	155
Burnaby	43	107
Maple Ridge	43	106
Coquitlam	30	73
Delta	24	60
Port Coquitlam	22	54
North Vancouver District	7	16
Port Moody	5	13
Vancouver	4	11
North Vancouver City	3	8
New Westminster	2	5
Langley City	2	5
Total Acres	**496**	**1,226**

Lands were removed from the Inventory due to a number of reasons, but mostly municipal policy changes (such as OCP designation changes or lands being rezoned and developed for non-industrial uses), shown below.

Table 5.5: Reasons for Industrial Lands Removals, 2010-2015

Reason	Area (Ha)	Area (Ac)
Municipal Policy Change	367	906
Road Right-of-way	63	155
Environmental	37	92
YVR Plan	30	73
Total Acres	**496**	**1,226**

The following map shows the additions (in green) and removals (in red) to the Industrial Lands Inventory between 2010 and 2015. Notable removals can be seen in South Westminster in Surrey, north-east Maple Ridge, and Willoughby in Langley, as well as parts of Sea Island (YVR). The added lands (in green) are in north Surrey along the south side of the Highway 1 corridor (Tynehead / Anniedale), and some in north-east Maple Ridge.


Industrial Inventory Lands Added and Removed Between 2010 and 2015
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
ADDED Lands
REMOVED Lands
ILI Lands Added and Removed

5.4 Types of Lands Absorbed and Added to the Inventory between 2010 and 2015

For the purpose of the Inventory, land absorption is defined as the rate at which land is converted from 'Vacant' status to 'Developed' status (as defined). Over the 2010-2015 period, 426 ha (gross) of lands went from 'Vacant' to 'Developed' status, while 47 ha of lands went from 'Developed' to 'Vacant'. This yielded a net absorption of 380 ha of industrial lands over the five-year period (see Section 5.6).

The 426 ha of lands that were 'Developed' over the 2010-2015 period were distributed across the following land use classifications. As shown, most of the lands (69%) were added to the 'General Industrial' classification, followed by 12% in 'Industrial – Outdoor Storage'. All other categories were much smaller.

Table 5.6: Gross Lands Developed over the 2010-2015 Period by Land Use Classifications

Type of Use	Area (ha)	% Share
Industrial - General	293	69%
Industrial - Outdoor Storage	53	12%
Non-Industrial - Commercial (big box)	5	1%
Non-Industrial - Commercial (car/trailer dealers)	5	1%
Non-Industrial - Commercial (small or medium-scale)	4	1%
Non-Industrial - Office	7	2%
Non-Industrial - Banquet Hall/Assembly	0	0%
Non-Industrial - Education/Training	1	0%
Non-Industrial - Recreation	5	1%
Other Infrastructure - Maintenance Yards/Emergency Services	8	2%
Other Infrastructure - Utilities	10	2%
Transportation Infrastructure - Developed Port Terminal	6	1%
Transportation Infrastructure - Developed YVR Airside/Groundside	19	5%
Transportation Infrastructure - Other	4	1%
Transportation Infrastructure - Parking	7	2%
TOTAL	**426**	**100%**

The amount of 'Vacant' lands declined by 513 ha (1,268 ac) during the 2010-2015 period: 380 ha (74%) became 'Developed' via absorption (discussed earlier) while 134 ha (26%) were entirely removed from the Inventory (due to municipal designation changes or land use changes).

Of the 147 ha of new lands added to the Inventory over the 2010-2015 period, 14 ha (9%) were 'Developed' by mid-2015, while 133 ha (91%) were added to the 'Vacant' category (noting the different types of 'Vacant'). The newly added lands were distributed across the following land use classifications, with nearly half (49%) being completely vacant, and nearly a third (30%) 'Agriculture'.

Table 5.7: Gross Lands Added to the 2015 Inventory by Land Use Classification

Developed Lands - Type of Use	Area (ha)	% Share
Industrial - General	5	4%
Industrial - Outdoor Storage	1	1%
Non-Industrial - Commercial (small or medium-scale)	2	1%
Non-Industrial - Office	2	1%
Non-Industrial - Education/Training	3	2%
Non-Industrial - Recreation	0	0%
Sub-Total	**14**	**9%**
Vacant Lands - Type of Use	**Area (ha)**	**% Share**
Industrial - Resource Extraction	16	11%
Non-Industrial - Agriculture	2	1%
Non-Industrial - Residential	44	30%
Vacant Land	71	49%
Sub-Total	**133**	**91%**
TOTAL	**147**	**100%**

5.5 2005 to 2010 to 2015 Change in Inventories

The following section shows the totals ('Developed' and 'Vacant') for the 2005, 2010, and 2015 Inventory periods, using revised Inventory numbers for the 2005 and 2010 periods. Lands were both added to and removed from the 'Vacant' and 'Developed' categories between the Inventory periods. It is important to note that this differs from 'absorption', which tracks actual (net and gross) lands that convert between 'Vacant' and 'Developed' status over the period (see Section 5.6).

The following figure and chart shows the change between the Inventory totals.

- From 2010 to 2015, there were the following changes to the Inventory:
  - a gross increase in 'Developed' industrial lands of 163 ha (403 ac)
  - a gross reduction in 'Vacant' lands of 513 ha (1,268 ac)
  - providing for a net change of negative 350 ha (865 ac)
- From 2005 to 2010, there were the following changes to the Inventory:
  - a gross increase in 'Developed' industrial lands of 512 ha (1,265 ac)
  - a gross reduction in 'Vacant' lands of 221 ha (546 ac)
  - providing for a net change of positive 291 ha (719 ac)

The following figures show the change over the 2005-2010 and 2010-2015 Inventory periods. Over the 2010-2015 period, the total amount of 'Developed' lands increased by 2% (163 ha / 403 ac), and the amount of 'Vacant' lands decreased by 19% (513 ha / 1,268 ac); the net effect was a 3% (350 ha / 865 ac) decline in the total Inventory.

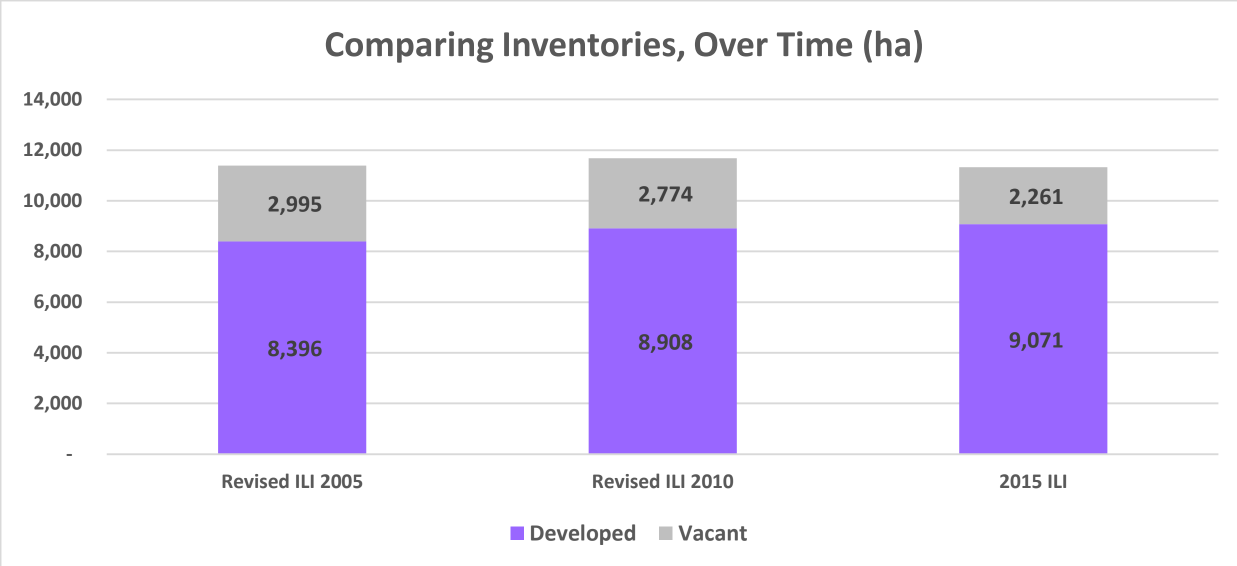
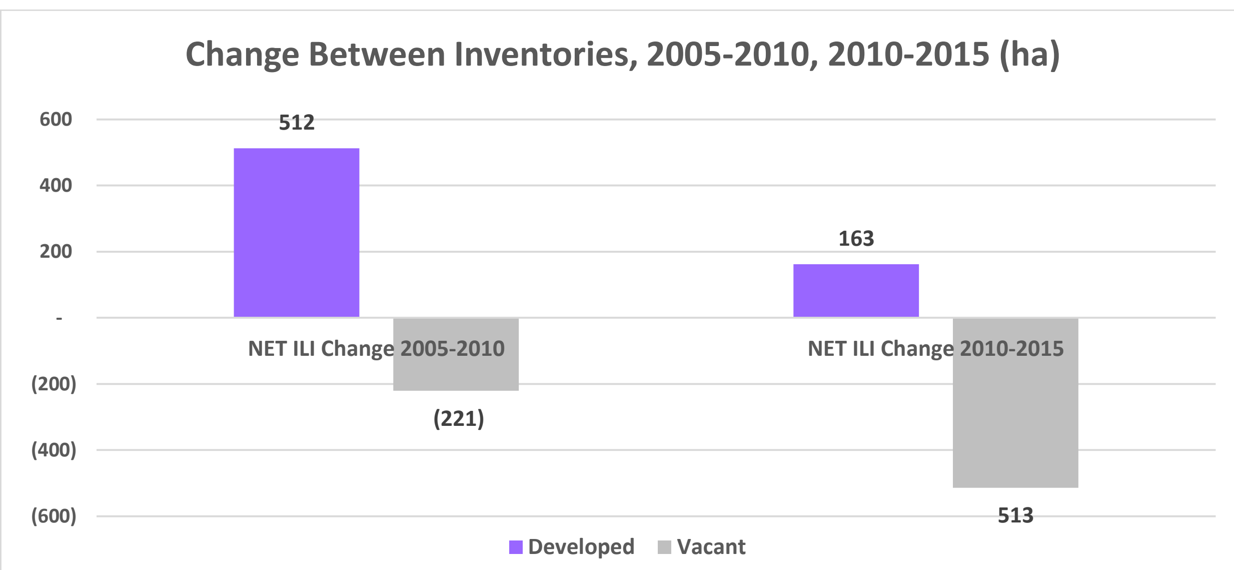


Table 5.8: Net Change in Inventories Between 2005 (revised), 2010 (revised), and 2015 (ha/ac)

	Inventory Results			Change in Periods		
Hectares	**2005**	**2010**	**2015**	**2005-2010**	**2010-2015**	**2005-2015**
Developed	8,396	8,908	9,071	512	163	675
Vacant	2,995	2,774	2,261	(221)	(513)	(734)
Total	**11,391**	**11,682**	**11,332**	**291**	**(350)**	**(59)**

	Inventory Results			Change in Periods		
Acres	**2005**	**2010**	**2015**	**2005-2010**	**2010-2015**	**2005-2015**
Developed	20,747	22,012	22,414	1,265	403	1,668
Vacant	7,401	6,855	5,587	(546)	(1,268)	(1,814)
Total	**28,147**	**28,866**	**28,001**	**719**	**(865)**	**(146)**



The following points explain the changes in the Inventory over the 2010-2015 period:

Looking from 2010 forward to 2015:

- Of the 8,909 ha of 'Developed' lands in the 2010 Inventory, 8,862 ha (99%) remained 'Developed', and 47 ha (1%) became 'Vacant' by 2015.
- Of the 2,774 ha of 'Vacant' lands in the 2010 Inventory, 2,214 ha (85%) were still 'Vacant' in 2015, 426 ha (10%) were 'Developed', and 134 ha (5%) were removed from the Inventory by 2015.

Conversely, looking from 2015 backward to 2010:

- Of the 9,071 ha of the Inventory that was 'Developed' as of 2015, 8,634 ha (95%) were 'Developed' as of 2010, while the balance of 426 ha (5%) were 'Vacant' as of 2010.
- Of the 2,261 ha of land in the Inventory that were 'Vacant' as of 2015, 2,079 ha (92%) were 'Vacant' in 2010.

5.6 2005 to 2010 to 2015 Land Development / Absorption

This section explains industrial land absorption (i.e. development), which differs from additions and removals to the Inventory.

Net absorption reflects two components:

- Gross lands that went from 'Vacant' status to 'Developed' status, and thus added to the Industrial Lands Inventory of 'Developed' lands;

  minus
- Gross lands that went from 'Developed' status to 'Vacant' status over the same period.

Together, these two <u>gross</u> components provide for a <u>net</u> absorption. Although most activity consists of lands going from 'Vacant' to 'Developed', some 'Developed' lands do become 'Vacant' before redeveloping.

It is important to note that this absorption of land represents industrial lands as defined in the report. For example, lands that went from a 'Vacant' classification to a 'Developed' classification may be utilized for outdoor storage, rather than having had a building constructed.

It is also important to note that over this period, a number of significant lands were sold / purchased or in the process of being developed. The Inventory does not consider lands in the process of being developed unless or until visible development (i.e. buildings, improvements) has occurred at the time of the Inventory date. Accordingly, for lands such as Tsawwassen First Nation that were purchased / leased with development plans but not yet built, including them as 'Developed' would yield a higher recorded development or land absorption over the period.

The following summarizes the land absorption for the three Inventory periods:

- From 2010 to 2015, there was a gross positive land absorption of 426 ha (1,054 ac), and a gross negative land absorption of 47 ha (116 ac), providing for a net of 380 ha (939 ac), or 76 ha (188 ac) per year on average.
- From 2005 to 2010, there was a gross positive land absorption of 534 ha (1,320 ac), and a gross negative land absorption of 69 ha (170 ac), providing for a net of 465 ha (1,150 ac), or 93 ha (230 ac) per year on average.

Notably, the annual land absorption rate declined between the 2005-2010 and 2010-2015 periods, which is generally consistent with industrial building growth over the periods. This difference could potentially be due to significant development of large industrial areas in the former period, and in the latter period less land supply available for development, higher land prices leading to less development, and more efficient development and use of lands.

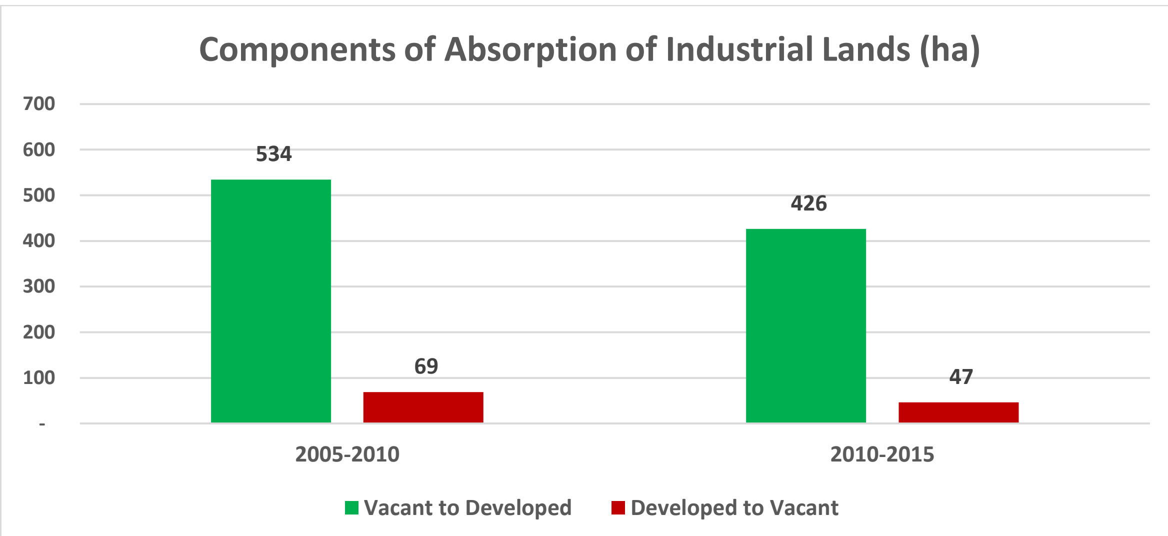


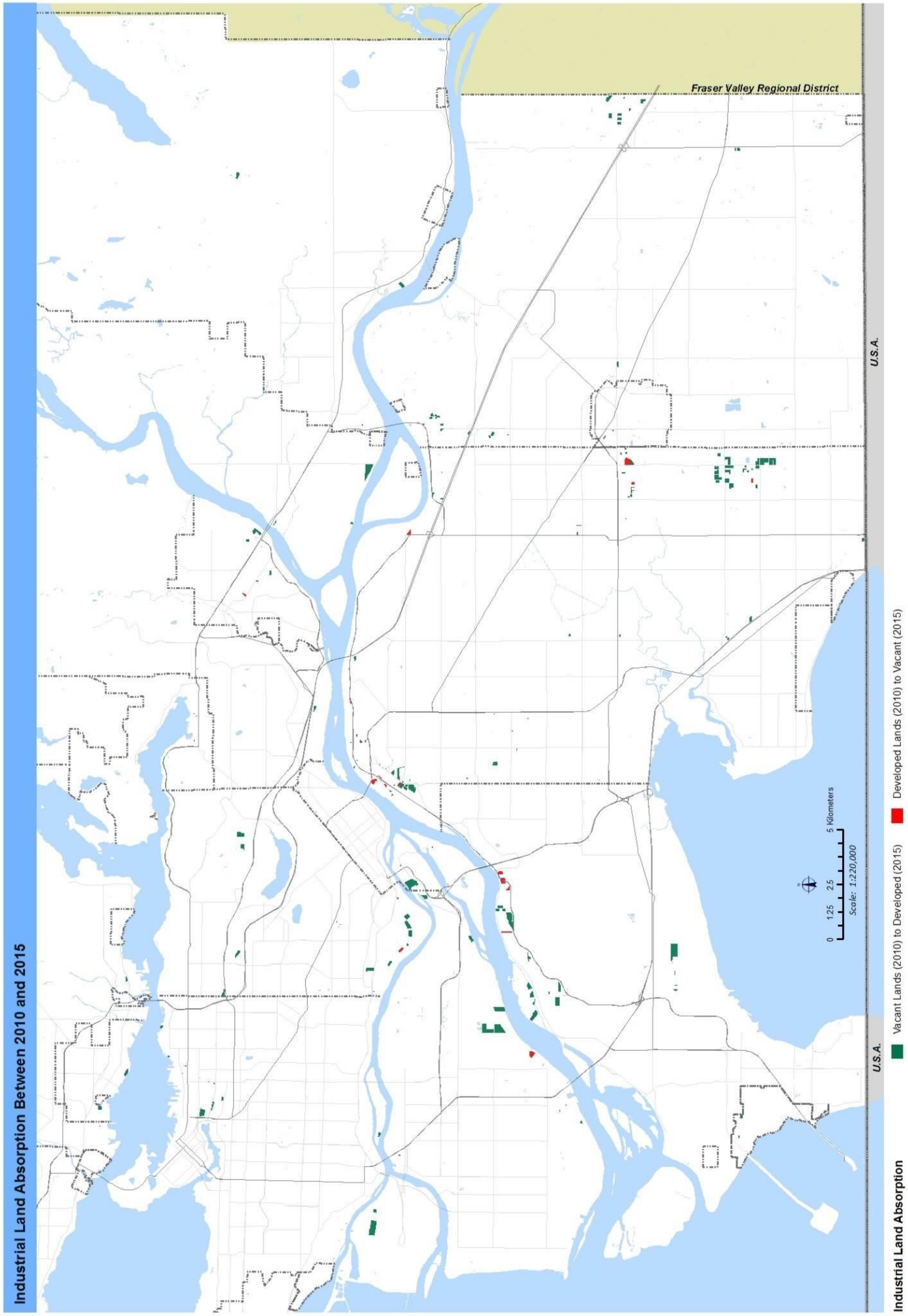
Table 5.9: Absorbed Industrial Lands, 2005-2010, 2010-2015 (ha/ac)

Hectares	**2005-2010**	**2010-2015**
Vacant to Developed	534	426
Developed to Vacant	69	47
Net Absorption	*465*	*380*
Average Annual Net Absorption	93	76

Acres	**2005-2010**	**2010-2015**
Vacant to Developed	1,320	1,054
Developed to Vacant	170	116
Net Absorption	*1,150*	*938*
Average Annual Net Absorption	230	188

The following map shows the industrial land absorption (positive and negative) activity between 2010 and 2015 as summarized in the previous table. Absorbed lands are distributed throughout the region, with larger blocks in Surrey (Campbell Heights and South Westminster), and parts of Richmond and Delta.

It is important to note that documented past 'absorption' or development rates are not the same as land demand. If more lands were available, particularly large sites in desired locations and at lower prices, the amount of land consumed or absorbed would be greater.


Industrial Land Absorption Between 2010 and 2015
Fraser Valley Regional District
U.S.A.
U.S.A.
0 1.25 2.5 5 Kilometers
Scale: 1:220,000
Industrial Land Absorption
Vacant Lands (2010) to Developed (2015)
Developed Lands (2010) to Vacant (2015)

5.7 Comparing Industrial Lands Inventory with Market Industrial Buildings Inventory

According to market research from brokerage firms, the amount of tracked industrial building floor area in the Metro Vancouver region increased from approximately 150 million sq ft in 2005, to 166 million sq ft in 2010, to 177 million sq ft in 2015 (Source: CBRE). The growth rate for the 2005-2010 period was 16.5 million sq ft and for the 2010-2015 period was 10.8 million sq ft. Within these five year periods, the amount of development and absorption varies by year depending on a number of economic and market factors.

Applying standard industry building floor area ratios for the construction of tracked new industrial buildings can be used to calculate the estimated amount of associated industrial land development. The calculations are generally consistent with the findings from the Industrial Lands Inventories, showing a higher level of development activity in the 2005-2010 period compared to 2010-2015.

Comparing only the ‘General Industrial’ sub-category of the 2015 Inventory, which is most likely to include industrial buildings that are tracked by market reports, with the buildings for the same period, indicates an overall average building Floor Area Ratio (FAR) of approximately 0.30 (note that this calculation is based on gross land areas; if net land areas were used, the calculated FAR would be higher).

5.8 Possible Future Industrial Land Adsorption

This report is not intended to provide a detailed industrial land demand and development or absorption forecast. However, a general ‘theoretical’ estimate of the number of years of potential supply can be made using historical demand and absorption rates.

Past trends and input from the brokerage industry have generally suggested that historic rates of industrial land absorption have been between 100 and 160 ha (250 and 400 ac) per year. A 2015 study for Port Metro Vancouver indicated that demand continues to be strong for industrial land, and annual demand for logistics industrial lands is forecast to increase from 40 ha (100 ac) to 65 ha (160 ac) or 85 ha (210 ac) due to increases of container throughput associated with the anticipated completion of Roberts Bank Terminal 2. The Port’s study estimates a need for 1,000 ha (2,500 ac) of well-located developable industrial land by 2035 for Roberts Bank Terminal 2, even with dramatically improved efficiency, plus 1,200 ha (3,000 ac) for non-port industrial land demand. As noted by the Port’s study, some of the demand for industrial lands is trade related, and some is local serving or not directly dependant on the transportation network (akin to two different real estate markets).

The result of applying different hypothetical industrial land absorption rates using the 2015 Inventory of ‘Vacant’ lands are shown in the following table and figure. This lifespan calculation would be further impacted if existing industrial lands are converted to other uses. For example, under the absorption rate of 100 ha (250 ac) per year, the 2015 Inventory of ‘Vacant’ land supply might be substantially absorbed by the 2030s. Again, noting that these are gross lands; net developable areas may be less. If future port trade activity and the volume of container traffic grows at a faster pace (i.e. construction of Roberts Bank Terminal 2), the region could see stronger demand and further scarcity of industrial lands would occur sooner. However, if intensity and redevelopment increases, land would be absorbed at a slower rate.

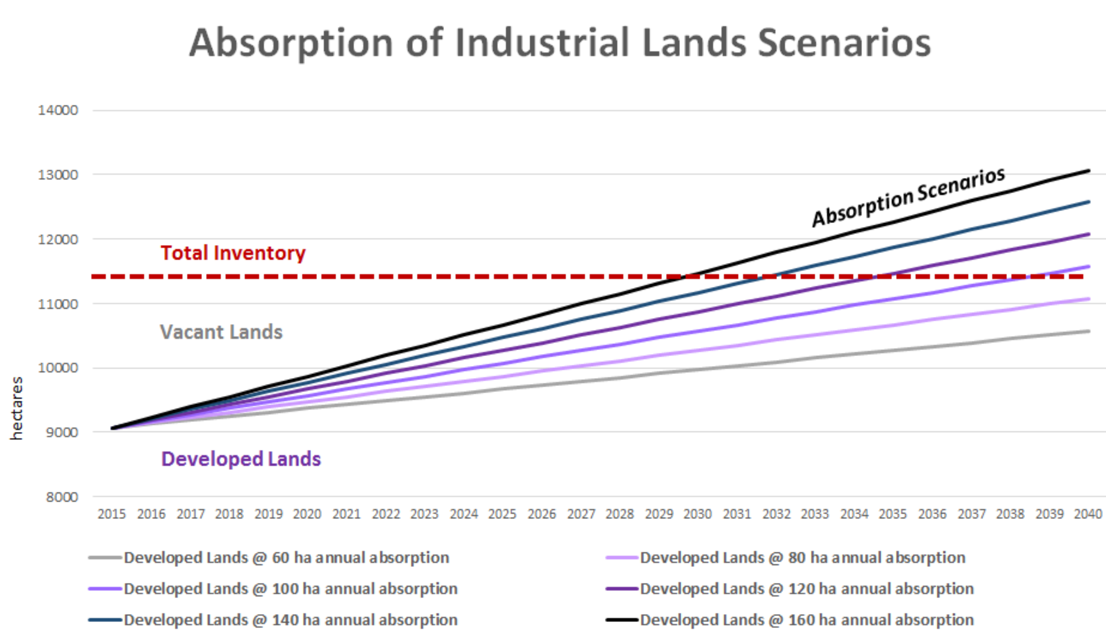
Table 5.10: Hypothetical Lifespan of Vacant Industrial Land Supply Under Alternative Demand / Absorption Rate Scenarios

Hectares

Estimated Vacant Land Supply Mid 2015	*Assumed Annual Net Absorption Rate*	Remaining Vacant Land in 2020	Remaining Vacant Land in 2025	Remaining Vacant Land in 2030	Year Supply Depleted
2,261	*60*	1961	1661	1361	2053
2,261	*80*	1861	1461	1061	2043
2,261	*100*	1761	1261	761	2038
2,261	*120*	1661	1061	461	2034
2,261	*140*	1561	861	161	2031
2,261	*160*	1461	661	-139	2029

Acres

Estimated Vacant Land Supply Mid 2015	*Assumed Annual Net Absorption Rate*	Remaining Vacant Land in 2020	Remaining Vacant Land in 2025	Remaining Vacant Land in 2030	Year Supply Depleted
5,586	*149*	4,854	4,111	3,369	2053
5,586	*198*	4,606	3,616	2,626	2043
5,586	*248*	4,359	3,121	1,884	2038
5,586	*297*	4,111	2,626	1,141	2034
5,586	*347*	3,864	2,131	398	2031
5,586	*396*	3,616	1,636	-344	2029



However, a complex set of factors affects industrial land supply, demand, utilization, and absorption rates. Furthermore, a buffer of free space is required to accommodate redevelopment and vacancy and other forms of transition. As land demand and development reaches saturation or full capacity, the remaining supply will include smaller, scattered remnant parcels that may not be viable for larger industrial developments due to limited size, site constraints, and/or poor location and access.

Also, some lands in the Inventory classified as ‘Vacant’ as of mid-2015 were in the development process and are already ‘spoken for’, in some cases with specific tenants proposed or building on speculation. These allocated lands may not be available for future development, which should be considered when completing detailed supply / demand projections and analysis.

The development potential of a portion of the ‘Vacant’ lands will be hindered by factors such as location, current uses, accessibility, lot assembly, market considerations, soil conditions, need for pre-loading, or high development costs. Based on these various constraints, the possible supply of net developable lands will be lower than the theoretical gross supply and is not determined in this report.

At the same time however, land absorption rates will also be affected by the redevelopment of under-utilized properties and intensification of developed industrial areas, which could extend the lifespan of the land supply. Potential development constraints could affect the availability and development potential of the ‘Vacant’ industrial land supply. Further study of utilization, development, redevelopment and intensification of industrial lands, as well industrial land demand, possibly by type or sector, will be completed in separate studies.

6 Summary / Conclusion

The Metro Vancouver 2015 Industrial Lands Inventory provides a comprehensive tally of the quantity and quality of industrial lands in the Metro Vancouver region as of mid-2015. This work supports *Metro 2040* implementation and objectives to protect and intensify industrial lands. Inventory highlights, key findings, and planned future work are outlined in the following sections.

6.1 Inventory Highlights

In 2015, the Metro Vancouver region had 11,331 hectares (28,000 acres) of industrial lands, of which 80% (9,071 ha / 22,414 ac) were 'Developed' and 20% (2,261 ha / 5,586 ac) 'Vacant'. Most of the lands in the 2015 Inventory are located in municipalities in the southern and eastern parts of the region: 23% in Surrey, 16% in Richmond, and 14% in Delta / Tsawwassen First Nation.

In terms of the 'Vacant' land in the 2015 Inventory, 3% is used for 'Resource Extraction', 2% for 'Residential', 1% for 'Agriculture', and 11% is undeveloped or fully vacant. These lands will serve as the future supply of industrial lands. However, only 20% of 'Vacant' industrial lands are on sites larger than 20 ha (50 ac). The available site size impacts the types of industrial users that can be accommodated.

Nearly half (47%) of industrial lands are categorized within the 2015 Inventory as 'General Industrial', a range of industrial uses that are typically building-intensive, along with associated accessory uses. Almost all of these lands (93%) are 'fully utilized' (80-100% utilized), which means that there are limited immediate opportunities for intensification given the current building form and use. Nevertheless, as these lands redevelop over the medium and long term, there will be potential to densify and intensify.

In terms of other land use classifications, 12% of industrial lands are used for transportation infrastructure (port, airport, rail), and an additional 10% for 'non-market' industrial functions such as 'Utilities' and 'Oil Tank Farms'. The 2015 Inventory also includes lands with non-industrial uses such as Retail' (3%) and 'Commercial' (3%).

Protection for industrial lands in the region varies, with 91% of the total 2015 Inventory regionally designated as either 'Industrial' (68%) or 'Mixed Employment' (23%). At the municipal level, 79% is both zoned and designated Industrial. Of the 'Developed' industrial lands, most (ranging from 81-92% by consolidated land use classification) are protected with both municipal Industrial designation and zoning. These designations help secure the long-term industrial use of the lands.

6.2 Key Findings

Notable amount of Industrial lands are used for non-industrial purposes

Conversion of industrial lands can occur in different ways. Some industrial lands are re-designated and removed from the Inventory as per municipal plans, while other lands with flexible Industrial designations are rezoned to allow for non-industrial uses. Some of these other types of uses support industrial activities, while others may threaten industrial areas; as example, 6% of the Inventory is used for stand-alone retail and commercial.

Some municipal plans include 'mixed employment' designations and zones that permit a wide range of industrial and commercial uses, which allows for more non-industrial uses in industrial areas, such as stand-alone retail, office, and other commercial. Allowing non-industrial uses in industrial areas reduces the land supply for industrial users and also can increase land prices and create land-use conflicts. These issues can destabilize industrial areas and compromise the ability for industrial growth.

The conversion of industrial lands continues

From 2010 to 2015, there was a net reduction of industrial lands in the region of 350 ha (865 ac). During this period, 147 ha (362 ac) of land were added to the Inventory, mostly in Surrey, Langley, and Maple Ridge, and 496 ha (1,226 ac) were removed from throughout the region.

This figure reflects the fact that the amount of ‘Vacant’ lands decreased by 19% (513 ha / 1,268 ac); some of which became ‘Developed’ (380 ha / 939 ac) and some of which were removed from the Inventory due to conversion to other uses (134 ha / 331 ac). Lands were removed from the Inventory due to a number of reasons, but mostly due to municipal policy changes (such as OCP designation changes or lands being rezoned and developed for non-industrial uses).

The conversion of industrial land continues to reduce opportunities for industrial development and industrial business expansion, and the limited land supply and higher land prices may push some industrial activity to other jurisdictions, with economic, employment, and taxation implications for the Metro Vancouver region.

Most Industrial lands are secured for long term protection

Municipal policies (land use designations and zoning) and regional land use designations secure long-term industrial use of industrial lands. The protective regional designations cover 91% of the lands in the 2015 Inventory. Lands that do not have such policy protection are more likely to convert and redevelop to other uses, particularly lands in Urban Centres. Although in some cases this change may be consistent with local and regional plans, such conversions further reduce the supply of lands available for industry.

Competing priorities for lands

Metro 2040 includes other long range regional planning goals, such as accommodating population and employment growth, focusing commercial and housing development in Urban Centres, protecting agricultural and environmental lands, and supporting sustainable transportation forms. Because of these multiple goals and objectives, there are in some cases competing or even conflicting policy priorities. For example, while protecting industrial lands is important, intensifying lands in

Urban Centres and near transit is also important; in some cases achieving both objectives may not be possible.

Short-term intensification potential is limited on lands that are fully utilized

Lands classified as 'General Industrial', which make up nearly half (47%) of the 2015 Inventory, are mostly 'fully utilized' (93%). This fact suggests that most of these lands are substantially used, with limited immediate opportunity for redevelopment and intensification. Nevertheless, as these lands redevelop over the medium and long term, there will be potential to densify and intensify.

Potential extension of lifespan of available vacant lands

The net land absorption was 380 ha (939 ac), or 76 ha (188 ac) per year on average over the 2010-2015 period. This rate is lower than the previous 2005-2010 period (with an average annual absorption rate of 93 ha / 230 ac). A lower future absorption rate potentially extends the lifespan of the existing supply of industrial lands. Using a theoretical absorption forecast model, the 'Vacant' industrial land supply might be substantially absorbed by the 2030s. However, it is important to note that before full depletion, the remaining land supply would be small, scattered parcels that would not be viable for larger industrial development.

Few available large sites for 'trade enabling' logistics uses

There are few 'Vacant' sites available for 'trade enabling' logistics users, namely large sites with few constraints and close to transportation infrastructure. Most of the best sites have already been developed. More industrial development, particularly logistics related activities occurring at increasingly farther away locations relative to the port terminals due to lack of available closer lands, may create more and longer truck trips (drayage) and associated traffic congestion and environmental impacts.

In some cases, abutting smaller properties can be consolidated and redeveloped in order to create larger sites for larger tenants, such as logistics operators.

6.3 Further Study

The 2015 Inventory can be considered and analyzed through different 'lenses' or 'filters' from different perspectives. Accordingly, building on the Inventory results, further study is possible, such as: specifically documenting market readiness timing and redevelopment / intensification potential, as outlined below (and components listed in Appendix 15). Additional potential work is also outlined, such as periodic updates, and study of other topics related to industrial lands, employment, economy, and transportation.

Market Readiness Timing

Not all 'Vacant' lands can be readily developed in the short-term. Further work can categorize the different types of constraints / opportunities and considerations (subject to defined criteria) to estimate 'market readiness' or potential timing for the industrial development of 'Vacant' lands.

This analysis could be similar to, and supplement and update, the past Metro Vancouver and NAIOP reports which reviewed in detail a sub-set of the Inventory in terms of site specific constraints and development potential. The methodology for the analysis consists of assessing and categorizing the development potential of 'Vacant' industrial lands by select constraints and features.

Intensification / Redevelopment Potential

Redevelopment and intensification is also an important way to extend the lifespan of the limited supply of industrial lands in the region.

Further work can identify the 'Developed' industrial lands -- subject to defined criteria -- with the greatest potential for redevelopment and intensification / densification in the region. Specifically, this would consider and categorize the different factors that impact the potential of industrial lands to re-develop and intensify.

Industrial Employment Study

Industrial lands contain an estimated one-quarter of the employment in the region. The form of industrial activity and associated employment types and densities are evolving with the changing economy. Some forms of industrial uses, such as modern warehouses, have efficient operations supported by automation and few employees, whereas other types of industry, such as manufacturing and assembly, have a much greater density of employees (per building floor space or per land area). These industry trends could be further studied to try to determine the implications on industrial land demand and uses.

Industrial Land Typologies Study

Develop and define industrial land typologies and their associated characteristics to provide for a refined and nuanced understanding of the industrial lands in the region, as well as of the needs of industrial users by different sectors. By defining industrial land typologies and associated intensity measures, this work would support the development of a more accurate and realistic understanding of the industrial lands reflecting the different users of land, and how this relates to possible changes in regional land uses.

In some cases these typologies are somewhat linear, as in a continuum / spectrum / transect, from 'lower intensity / density' to 'higher intensity / density', while for others there are more variables and simple singular measures do not tell the full story.

Other Potential Topics

Other areas for potential further study include:

- Industrial land demand scenarios and absorption forecasts
- Quantify economic Impact of Industrial land development and use activities
- Industrial economic and employment activities lost to other jurisdictions
- Goods movement transportation infrastructure supporting industry

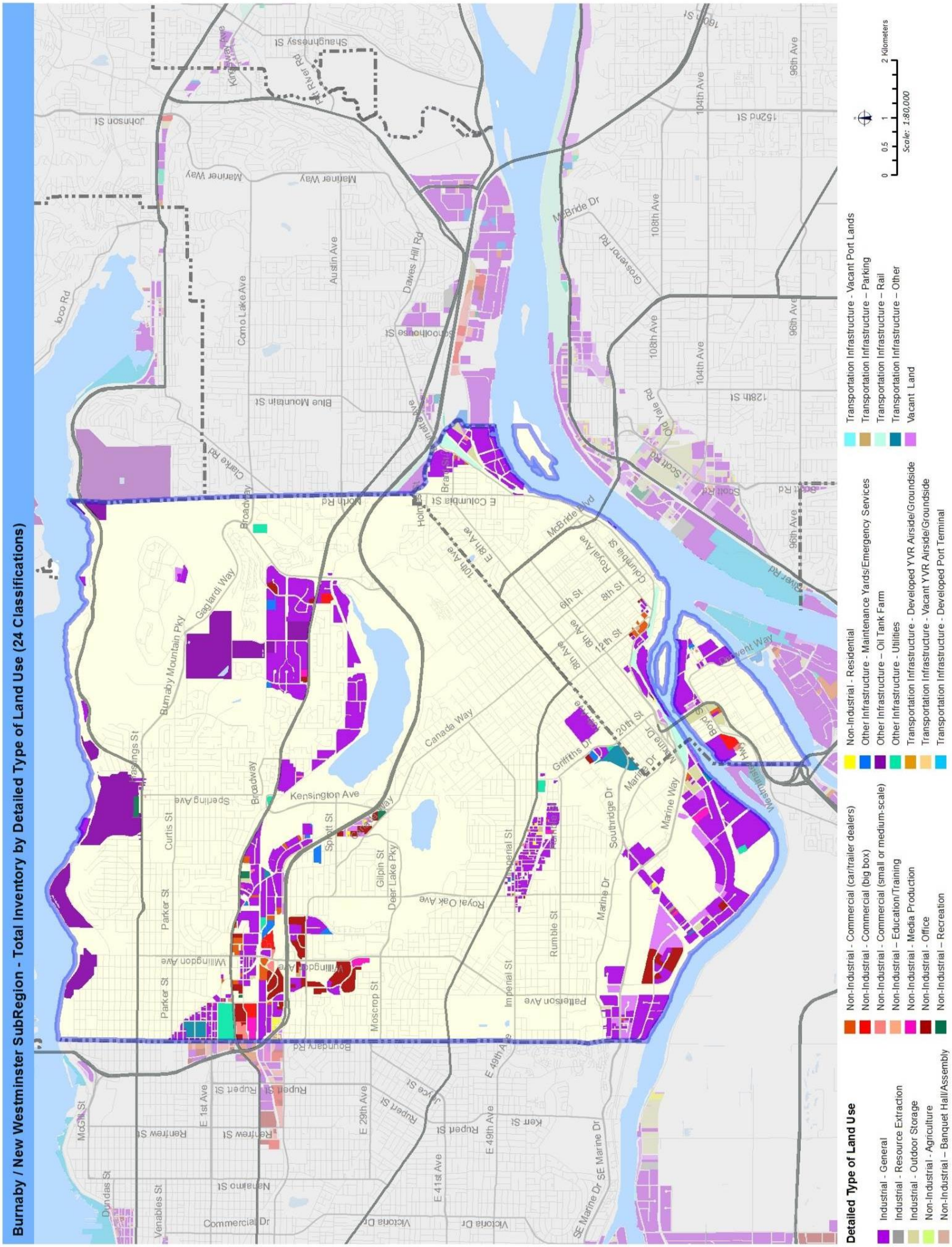
- Comprehensive study on origins and destinations for the purpose of finding potential efficiencies in the system
- Document number of employees to provide a better understanding of trip generation from industrial lands
- Industrial lands governance experiences in other jurisdictions
- Innovative building design examples / best practices

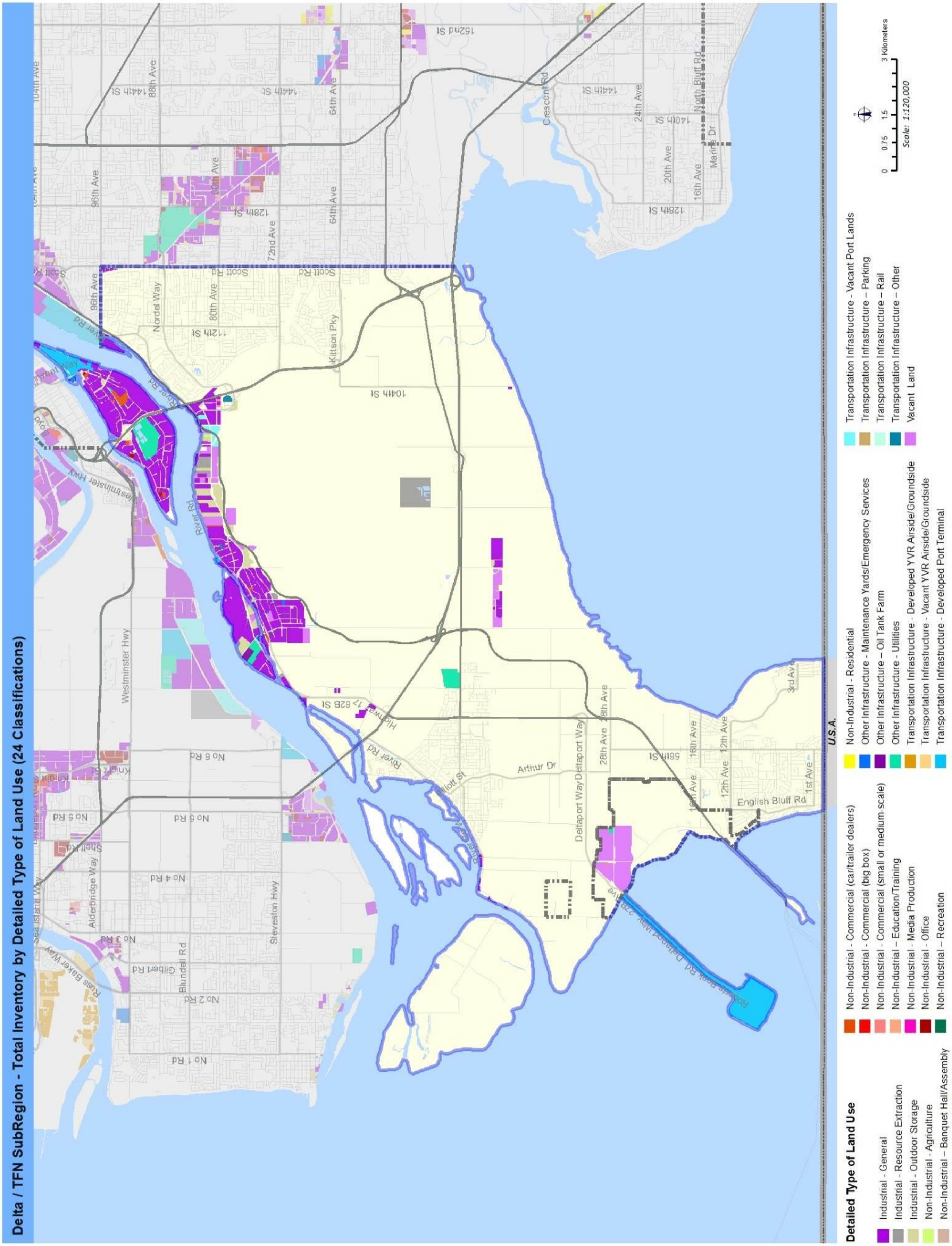
6.4 Closing

Metro Vancouver is a high growth region and the protection of industrial land is one of many important regional objectives. Undertaking the Metro Vancouver 2015 Industrial Lands Inventory entailed working with member municipalities, agencies, and industry to create an updated and detailed inventory of industrial lands in the region. The 2015 Inventory results can assist in advancing the implementation of *Metro 2040*, support municipalities in their efforts to protect and intensify industrial lands, and provide public agencies and the development community with additional information about available industrial lands and opportunities. The Inventory will be updated periodically and the results will be used as the basis for further analysis, information sharing, and engagement.

Appendix 1: Sub-Regional Inventory Maps

- Burnaby / New Westminster
- Delta / Tsawwassen First Nation
- Langleys (City of Langley, Township of Langley)
- North-East Sector (City of Port Moody, City of Coquitlam, City of Port Coquitlam)
- North Shore (City of North Vancouver, District of North Vancouver)
- Richmond
- Ridge Meadows (City of Maple Ridge, City of Pitt Meadows)
- Surrey / White Rock
- Vancouver


Burnaby / New Westminster SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
Other Infrastructure - Maintenance Yards/Emergency Services
Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
Transportation Infrastructure - Developed YVR Airside/Groundside
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.5 1 2 Kilometers
Scale: 1:80,000


Delta / TFN SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
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Other Infrastructure – Oil Tank Farm
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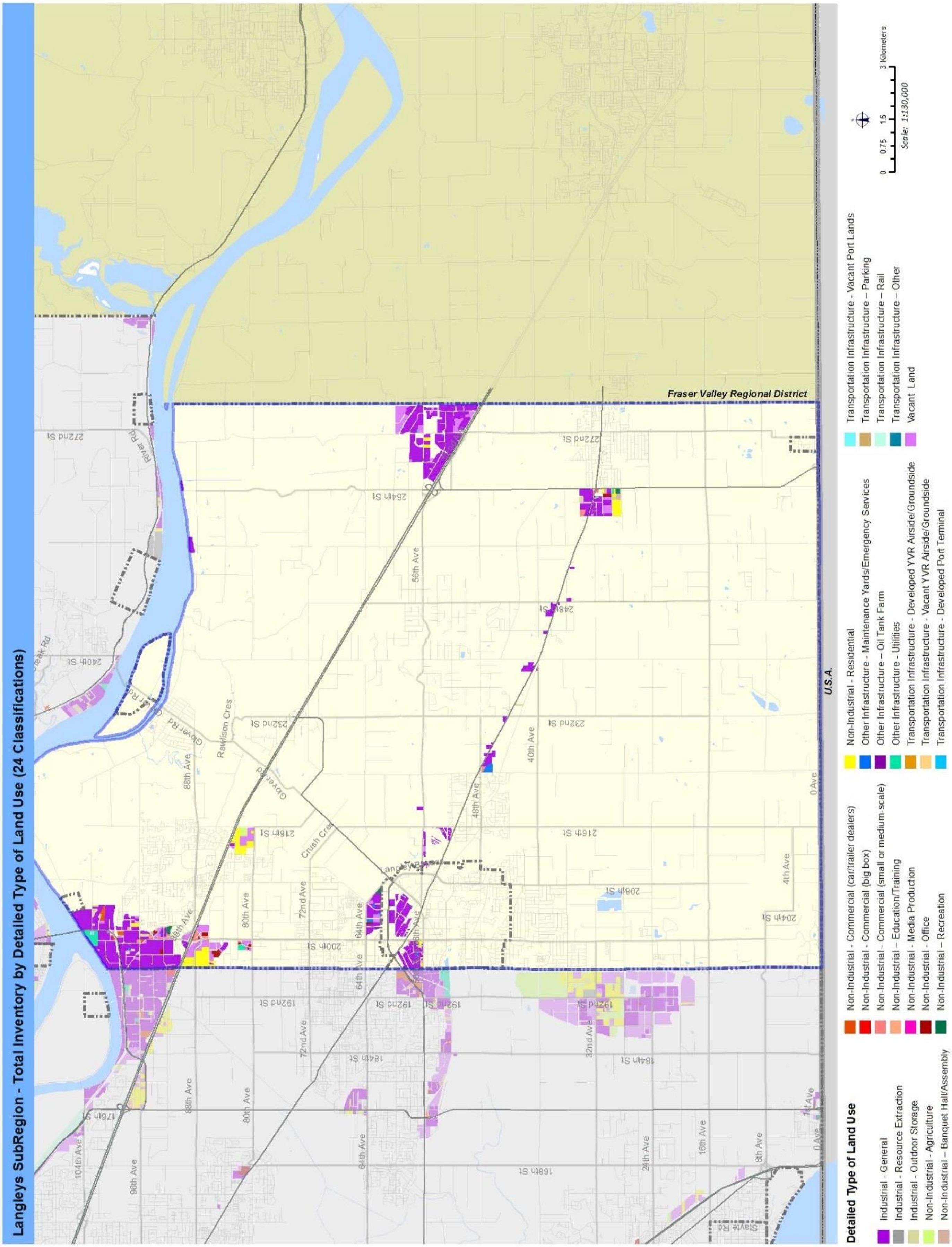
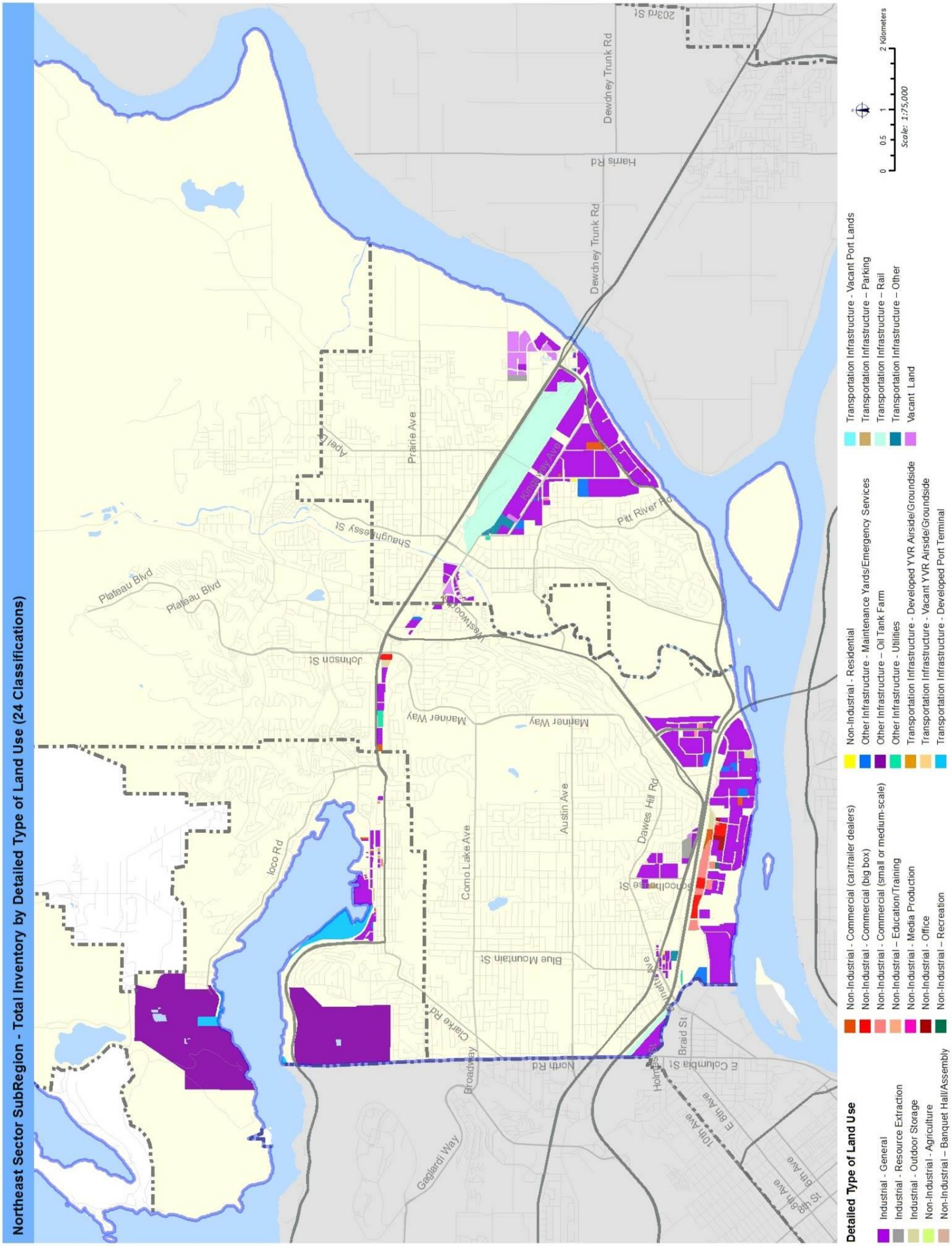
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure - Other
Vacant Land
Scale: 1:120,000
U.S.A.


Langleys SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Fraser Valley Regional District
U.S.A.
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial - Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
Other Infrastructure - Maintenance Yards/Emergency Services
Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
Transportation Infrastructure - Developed YVR Airside/Groundside
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.75 1.5 3 Kilometers
Scale: 1:130,000


Northeast Sector SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
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Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
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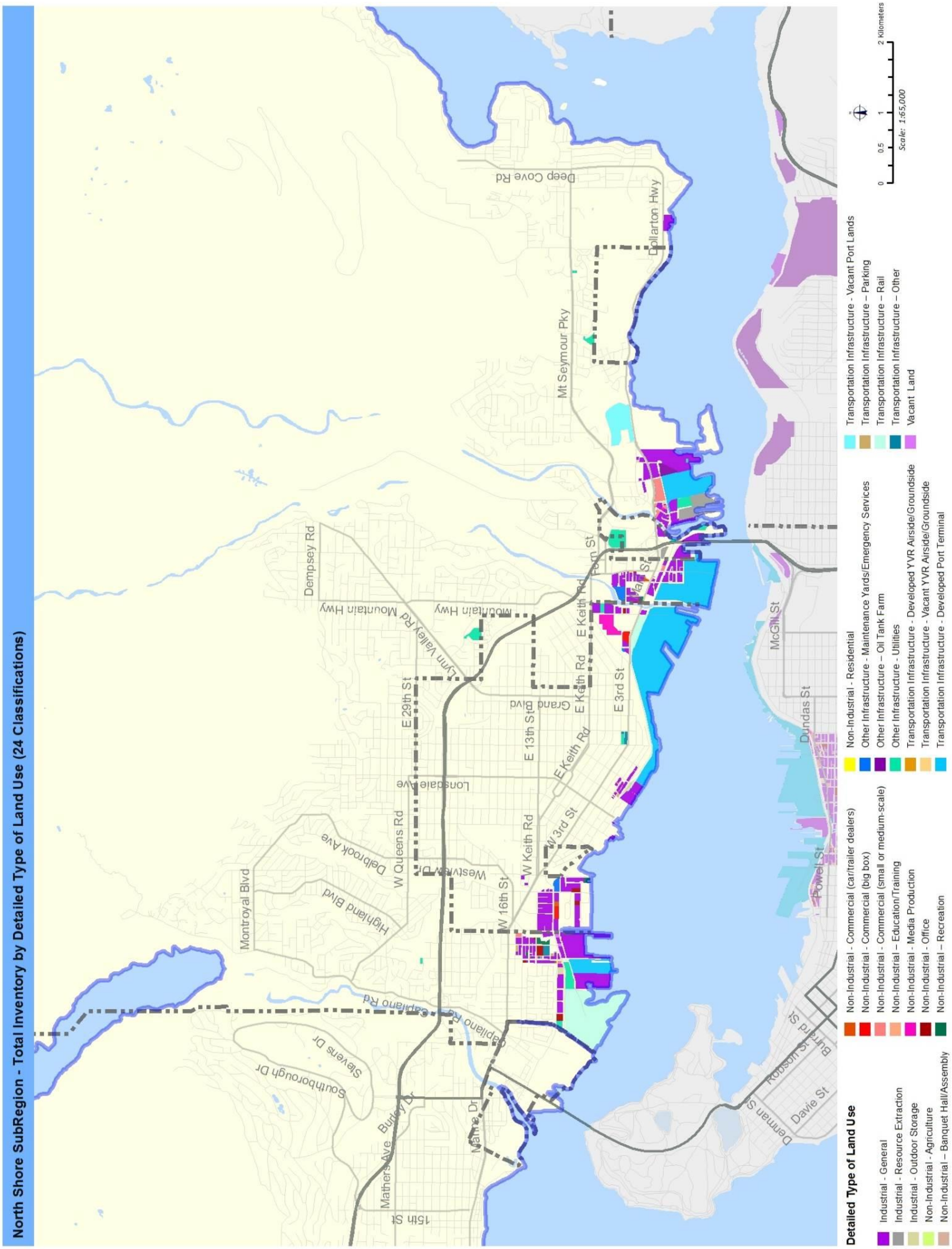
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.5 1 2 Kilometers
Scale: 1:75,000


North Shore SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
Other Infrastructure - Maintenance Yards/Emergency Services
Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
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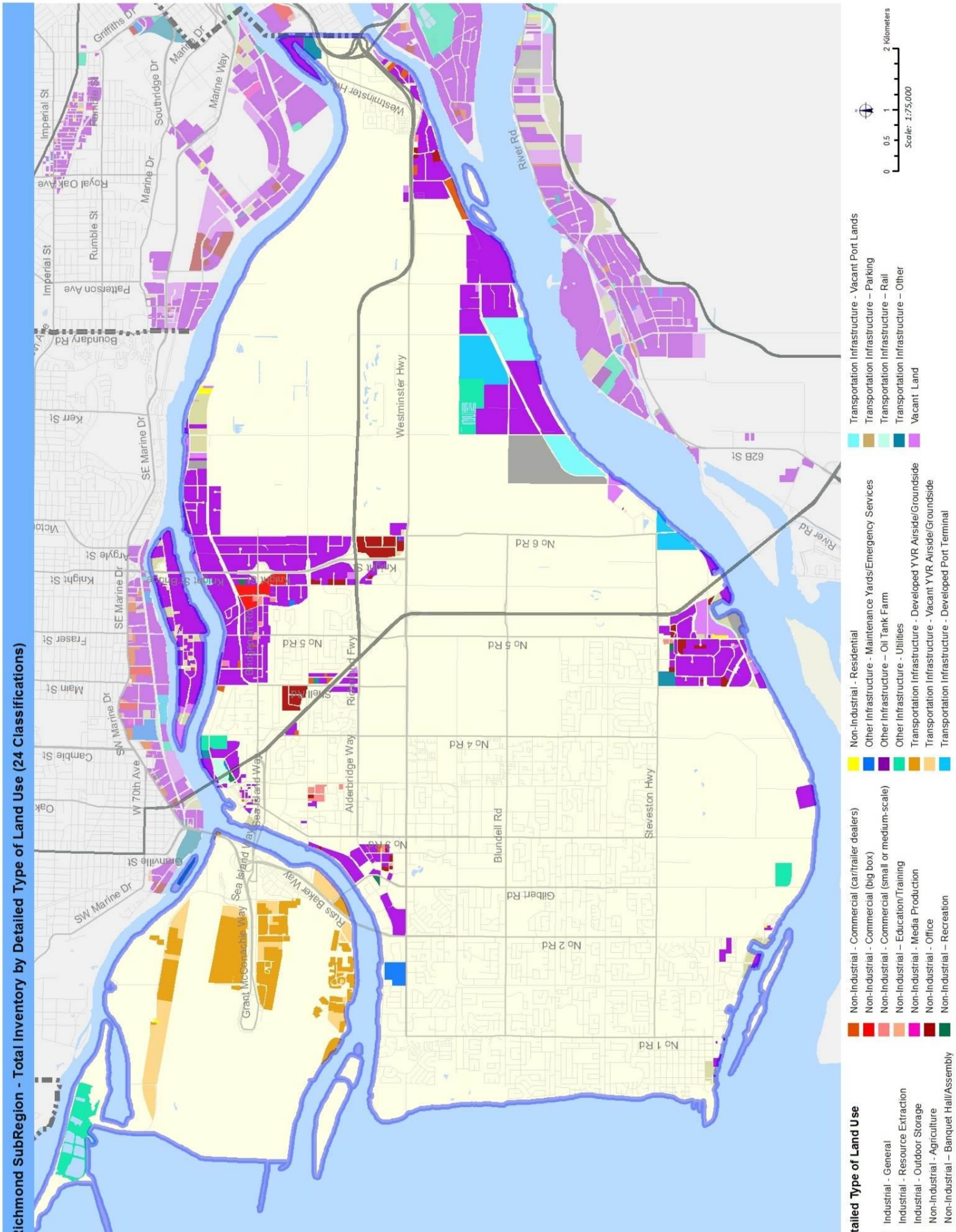
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.5 1 2 Kilometers
Scale: 1:65,000
Deep Cove Rd
Dollarton Hwy
Mt Seymour Pky
Dempsey Rd
Mountain Hwy
Lynn Valley Rd
E 29th St
E 13th St
Grand Blvd
E Keith Rd
E 3rd St
Lonsdale Ave
W Queens Rd
Delbrook Ave
Westview Dr
W Keith Rd
W 3rd St
W 16th St
Highland Blvd
Montroyal Blvd
Capilano Rd
Stevens Dr
Southborough Dr
Burley Dr
Mathers Ave
Marine Dr
15th St
McGill St
Dundas St
Powell St
Burrard St
Robson St
Denman St
Davie St


Richmond SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
Non-Industrial - Office
Non-Industrial – Recreation
Non-Industrial - Residential
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Other Infrastructure – Oil Tank Farm
Other Infrastructure - Utilities
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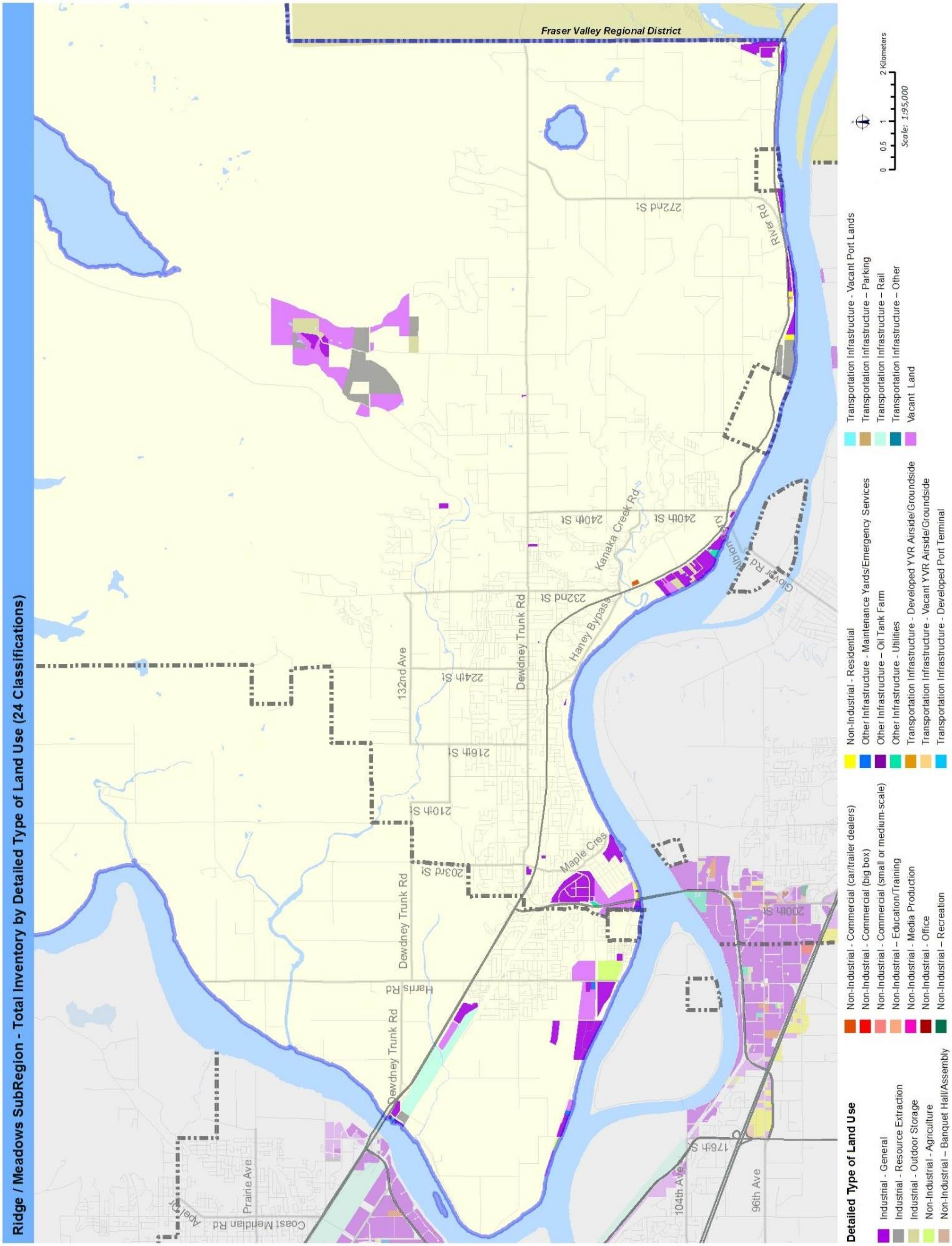
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.5 1 2 Kilometers
Scale: 1:75,000


Ridge / Meadows SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Fraser Valley Regional District
Dewdney Trunk Rd
132nd Ave
224th St
216th St
210th St
203rd St
232nd St
240th St
272nd St
River Rd
Kanaka Creek Rd
Haney Bypass
Maple Cres
Harris Rd
Glover Rd
200th St
176th St
104th Ave
96th Ave
Prairie Ave
Coast Meridian Rd
Scale: 1:95,000
0 0.5 1 2 Kilometers
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
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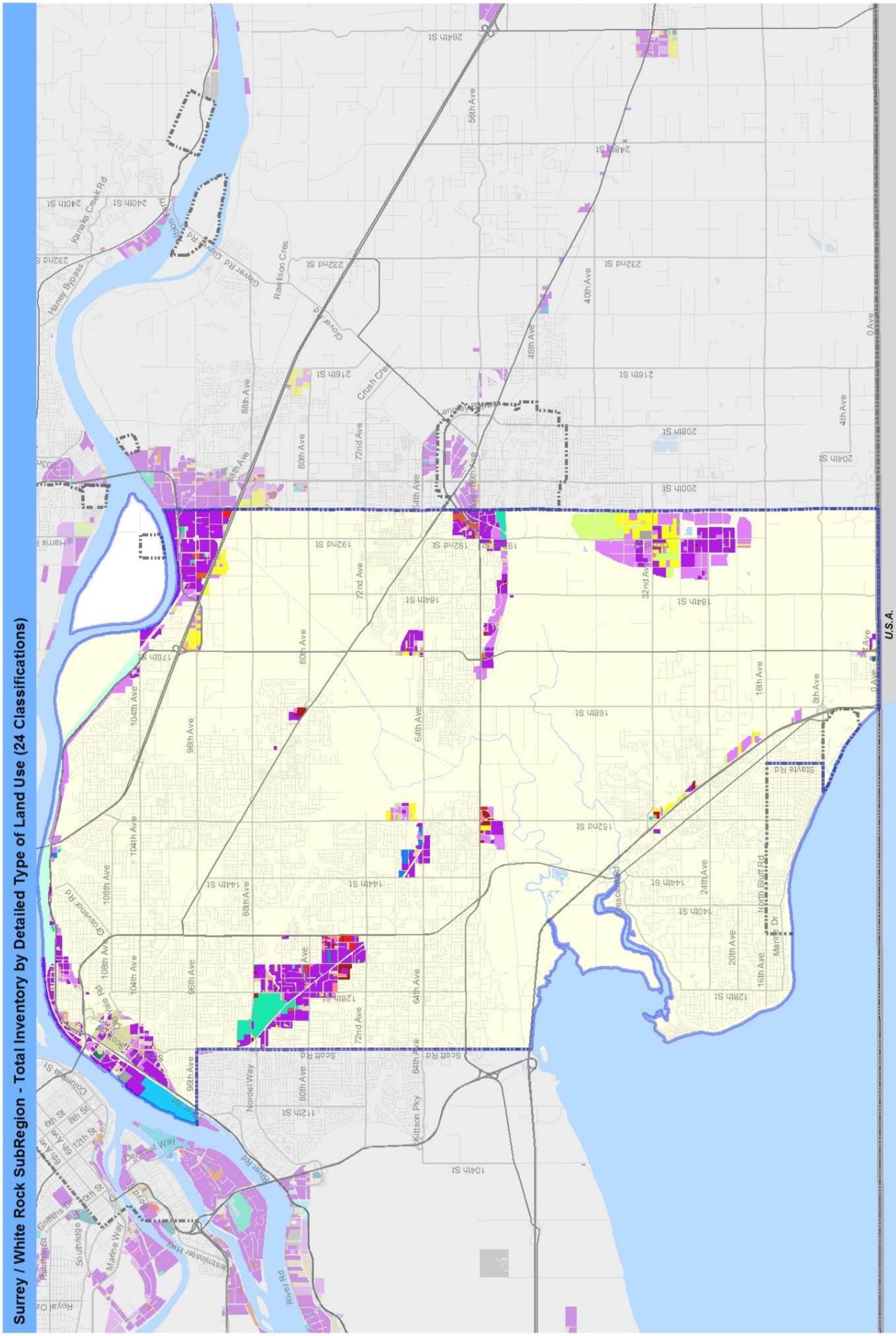
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land


Surrey / White Rock SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
U.S.A.
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
Non-Industrial - Commercial (small or medium-scale)
Non-Industrial – Education/Training
Non-Industrial - Media Production
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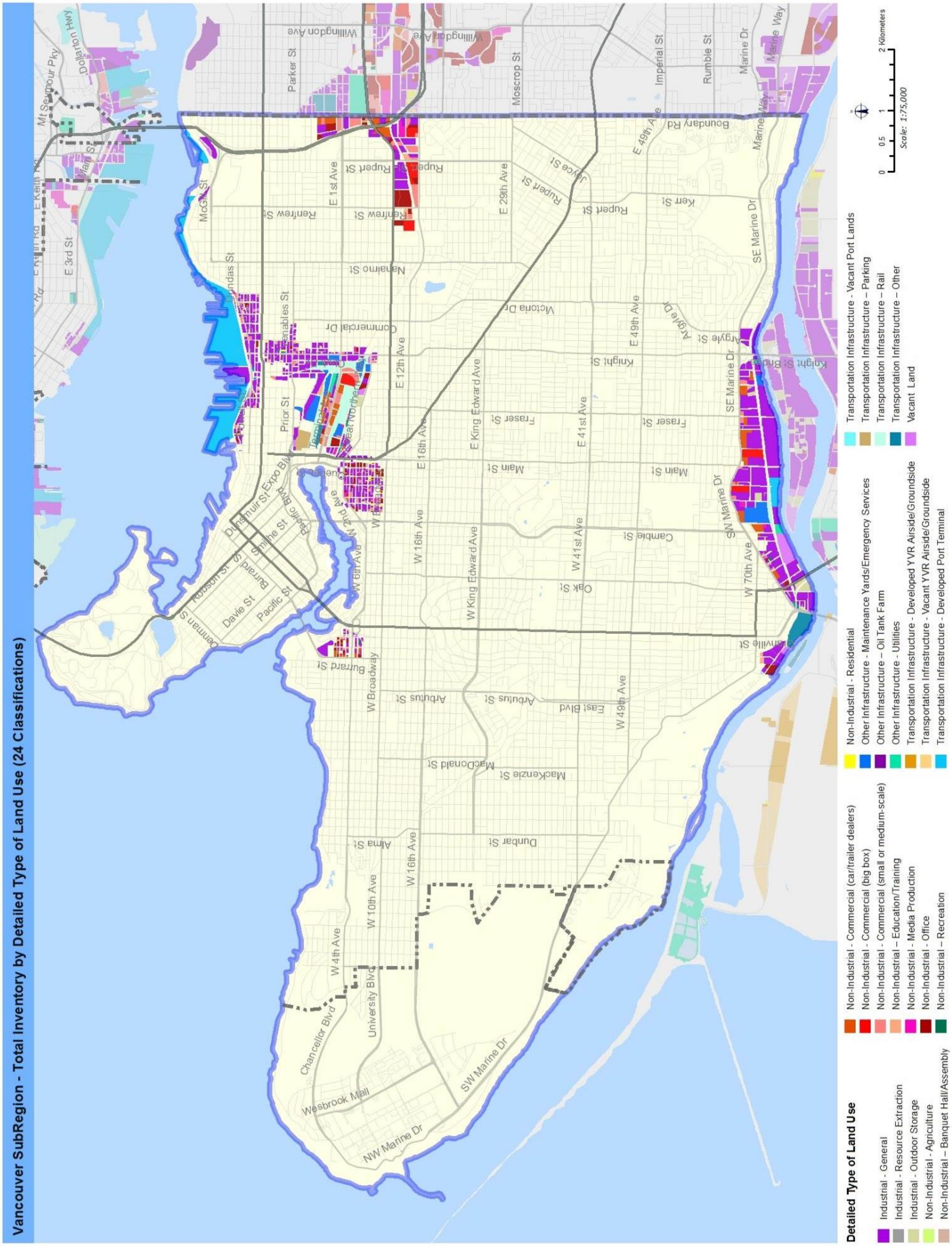
Transportation Infrastructure - Vacant YVR Airside/Groundside
Transportation Infrastructure - Developed Port Terminal
Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure – Rail
Transportation Infrastructure – Other
Vacant Land
0 0.75 1.5 3 Kilometers
Scale: 1:140,000


Vancouver SubRegion - Total Inventory by Detailed Type of Land Use (24 Classifications)
Detailed Type of Land Use
Industrial - General
Industrial - Resource Extraction
Industrial - Outdoor Storage
Non-Industrial - Agriculture
Non-Industrial – Banquet Hall/Assembly
Non-Industrial - Commercial (car/trailer dealers)
Non-Industrial - Commercial (big box)
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Transportation Infrastructure - Vacant Port Lands
Transportation Infrastructure – Parking
Transportation Infrastructure - Rail
Transportation Infrastructure – Other
Vacant Land
0 0.5 1 2 Kilometers
Scale: 1:75,000

Appendix 2: Inventory Tables – Consolidated Land Use Classification

Table A2.1: Consolidated Land Use Classification by Sub-Region (ha)

Row Labels	Burnaby/New West	Delta/TFN	Langleys	North Shore	Northeast Sector	Richmond	Ridge - Meadows	Surrey/White Rock	Vancouver	Grand Total
Building Intensive - Industrial	799	809	655	130	496	886	223	1,032	273	5,304
Land Intensive - Industrial	50	91	24	6	28	81	34	156	39	510
Large-Scale Infrst./Transpt.	314	341	18	236	582	367	65	398	156	2,477
Transportation - Parking / Other	27	5	1	3	9	20		4	25	94
Other Commercial	116	4	26	12	5	56		63	48	330
Retail	55	22	25	10	37	47	2	74	84	356
Other and Vacant Land Use	77	326	193	28	36	307	419	857	17	2,261
Grand Total	**1,438**	**1,598**	**942**	**426**	**1,192**	**1,765**	**743**	**2,584**	**642**	**11,331**

Table A2.2: Consolidated Land Use Classification by Regional Land Use Designation (ha)

Row Labels	Con-Rec	Rural	Agricultural	General Urban	Mixed Emp	Industrial	Grand Total
Building Intensive - Industrial	2	4	15	454	1,266	3,564	5,304
Land Intensive - Industrial			1	73	103	333	510
Large-Scale Infrst./Transpt.	60		10	159	32	2,216	2,477
Transportation - Parking / Other				21	12	61	94
Other Commercial				33	248	50	330
Retail	0			41	187	127	356
Other and Vacant Land Use		12	1	111	793	1,344	2,261
Grand Total	**62**	**16**	**26**	**893**	**2,641**	**7,694**	**11,331**

Table A2.3: Consolidated Land Use Classification by Land Ownership Type (ha)

Row Labels	Private	Private - Railway	Public - Federal	Public - Provincial	Public - Local Gvnt.	Crown Corp.	TFN	Grand Total
Building Intensive - Industrial	4,863	20	303	10	93	15		5,304
Land Intensive - Industrial	370	4	18	15	90	13		510
Large-Scale Infrst./Transpt.	709	474	967	8	126	190	2	2,477
Transportation - Parking / Other	28		3	11	53			94
Other Commercial	296	1	2	8	16	6		330
Retail	353			0	1	0	1	356
Other and Vacant Land Use	1,321	18	315	131	311	38	127	2,261
Grand Total	**7,940**	**517**	**1,609**	**183**	**690**	**263**	**130**	**11,331**

Table A2.4: Utilization Rate of Building Intensive – General Industrial Lands by Sub-Region (ha)

Row Labels	(1% to 20%)	(20% to 40%)	(40% to 60%)	(60% to 80%)	(80% to 100%)	Grand Total	% 80-100%
Burnaby/New West		1	41	12	745	799	93%
Delta/TFN	59	2		17	732	809	90%
Langleys			35	16	604	655	92%
North Shore				11	119	130	91%
Northeast Sector	1		5	18	474	497	95%
Richmond		6	0	11	868	886	98%
Ridge - Meadows	3	4	12	16	190	223	85%
Surrey/White Rock	0	6	40	57	928	1,032	90%
Vancouver			0	2	271	273	99%
Grand Total	**62**	**19**	**133**	**160**	**4,931**	**5,305**	**93%**

Appendix 3: Inventory Tables – Detailed Land Use Classification

Table A3.1: Detailed Land Use Classification (ha/ac)

Row Labels	Area_Ha	Area_Acre	% of Total
Building Intensive - Industrial	**5,304**	**13,105**	**47%**
Industrial - General	5,304	13,105	47%
Land Intensive - Industrial	**510**	**1,260**	**4%**
Industrial - Outdoor Storage	389	962	3%
Other Infrastructure - Maint. Yards/Emrgy. Servs.	121	298	1%
Large-Scale Infrst./Transpt.	**2,477**	**6,121**	**22%**
Other Infrastructure - Oil Tank Farm	650	1,606	6%
Other Infrastructure - Utilities	403	997	4%
Transportation - Rail	534	1,320	5%
Transportation - Developed Port Terminal	708	1,750	6%
Transportation - Developed YVR Airside/Groundside	181	448	2%
Transportation - Parking / Other	**94**	**233**	**1%**
Transportation Infrastructure - Other	83	204	1%
Transportation - Parking	12	29	0%
Other Commercial	**330**	**816**	**3%**
Non-Industrial - Education/Training	14	34	0%
Non-Industrial - Media Production	31	77	0%
Non-Industrial - Office	243	600	2%
Non-Industrial - Recreation	28	69	0%
Non-Industrial - Banquet/Assembly	15	36	0%
Retail	**356**	**879**	**3%**
Non-Industrial - Commercial (big box)	92	228	1%
Non-Industrial - Commercial (car/trailer)	131	323	1%
Non-Industrial - Commercial (small/medium)	133	328	1%
Other and Vacant Land Use	**2,261**	**5,586**	**20%**
Industrial - Resource Extraction	332	821	3%
Non-Industrial - Agriculture	156	386	1%
Non-Industrial - Residential	277	685	2%
Transportation - Vacant Port Lands	106	263	1%
Transportation - Vacant YVR Airside/Groundside	93	229	1%
Vacant Land	1,295	3,201	11%
Grand Total	**11,331**	**28,000**	**100%**

Table A3.2: Number of Sites and Average Site Size by Detailed Land Use Classification (ha)

Row Labels	Count of Area_Ha2	Sum of Area_ha	Average of Area_Ha3
Building Intensive - Industrial	**5,608**	**5,304**	**0.9**
Industrial - General	5,608	5,304	0.9
Land Intensive - Industrial	**525**	**510**	**1.0**
Industrial - Outdoor Storage	450	389	0.9
Other Infrastructure - Maint. Yards/Emrgy. Servs.	75	121	1.6
Large-Scale Infrst./Transpt.	**268**	**2,477**	**9.2**
Other Infrastructure - Oil Tank Farm	14	650	46.4
Other Infrastructure - Utilities	97	403	4.2
Transportation - Rail	51	534	10.5
Transportation - Developed Port Terminal	33	708	21.5
Transportation - Developed YVR Airside/Groundside	73	181	2.5
Transportation - Parking / Other	**67**	**94**	**1.4**
Transportation Infrastructure - Other	43	83	1.9
Transportation - Parking	24	12	0.5
Other Commercial	**473**	**330**	**0.7**
Non-Industrial - Education/Training	18	14	0.8
Non-Industrial - Media Production	60	31	0.5
Non-Industrial - Office	339	243	0.7
Non-Industrial - Recreation	28	28	1.0
Non-Industrial - Banquet/Assembly	28	15	0.5
Retail	**492**	**356**	**0.7**
Non-Industrial - Commercial (big box)	30	92	3.1
Non-Industrial - Commercial (car/trailer)	168	131	0.8
Non-Industrial - Commercial (small/medium)	294	133	0.5
Other and Vacant Land Use	**1,294**	**2,261**	**1.7**
Industrial - Resource Extraction	39	332	8.5
Non-Industrial - Agriculture	25	156	6.3
Non-Industrial - Residential	533	277	0.5
Transportation - Vacant Port Lands	23	106	4.6
Transportation - Vacant YVR Airside/Groundside	20	93	4.6
Vacant Land	654	1,295	2.0
Grand Total	**8,727**	**11,331**	**1.3**

Table A3.3: Detailed Land Use Classification by Sub-Region (ha)

Row Labels	Burnaby/New West	Delta/TFN	Langleys	North Shore	Northeast Sector	Richmond	Ridge - Meadows	Surrey/White Rock	Vancouver	Grand Total
Building Intensive - Industrial	**799**	**809**	**655**	**130**	**496**	**886**	**223**	**1,032**	**273**	**5,304**
Industrial - General	799	809	655	130	496	886	223	1,032	273	5,304
Land Intensive - Industrial	**50**	**91**	**24**	**6**	**28**	**81**	**34**	**156**	**39**	**510**
Industrial - Outdoor Storage	34	85	14	2	9	67	32	137	10	389
Other Infrastructure - Maint. Yards/Emrgy. Servs.	16	6	10	4	20	14	2	19	29	121
Large-Scale Infrst./Transpt.	**314**	**341**	**18**	**236**	**582**	**367**	**65**	**398**	**156**	**2,477**
Other Infrastructure - Oil Tank Farm	252	6		3	389					650
Other Infrastructure - Utilities	28	89	18	21	4	108	4	127	4	403
Transportation - Developed Port Terminal		244		152	37	68		91	115	708
Transportation - Developed YVR Airside/Groundside						181				181
Transportation - Rail	34	2		60	151	10	61	180	37	534
Transportation - Parking / Other	**27**	**5**	**1**	**3**	**9**	**20**		**4**	**25**	**94**
Transportation - Parking	1	1	0	1	2			0	7	12
Transportation Infrastructure - Other	26	5	0	2	8	20		4	18	83
Other Commercial	**116**	**4**	**26**	**12**	**5**	**56**		**63**	**48**	**330**
Non-Industrial - Banquet/Assembly	1		5		0	1		7	1	15
Non-Industrial - Education/Training			1					7	6	14
Non-Industrial - Media Production	17			6	0				9	31
Non-Industrial - Office	91	3	14	4	4	52		44	31	243
Non-Industrial - Recreation	7	0	7	2	1	4		7	1	28
Retail	**55**	**22**	**25**	**10**	**37**	**47**	**2**	**74**	**84**	**356**
Non-Industrial - Commercial (big box)	18			3	12	18		19	22	92
Non-Industrial - Commercial (car/trailer)	25	17	9	1	8	16	1	23	31	131
Non-Industrial - Commercial (small/medium)	11	5	17	6	17	13	1	33	31	133
Other and Vacant Land Use	**77**	**326**	**193**	**28**	**36**	**307**	**419**	**857**	**17**	**2,261**
Industrial - Resource Extraction	1	83		12	8	81	125	23		332
Non-Industrial - Agriculture	0		5				20	131		156
Non-Industrial - Residential	6	2	77	0	1	5	5	181	2	277
Transportation - Vacant Port Lands		14		16		77			0	106
Transportation - Vacant YVR Airside/Groundside						93				93
Vacant Land	71	227	111	1	28	51	269	522	15	1,295
Grand Total	**1,438**	**1,598**	**942**	**426**	**1,192**	**1,765**	**743**	**2,584**	**642**	**11,331**

Table A3.4: Detailed Land Use Classification by Regional Land Use Designation (ha)

Row Labels	Con-Rec	Rural	Agricultural	General Urban	Mixed Emp	Industrial	Grand Total
Building Intensive - Industrial	**2**	**4**	**15**	**454**	**1,266**	**3,564**	**5,304**
Industrial - General	2	4	15	454	1,266	3,564	5,304
Land Intensive - Industrial			**1**	**73**	**103**	**333**	**510**
Industrial - Outdoor Storage			1	47	83	259	389
Other Infrastructure - Maint. Yards/Emrgy. Servs.				27	20	74	121
Large-Scale Infrst./Transpt.	**60**		**10**	**159**	**32**	**2,216**	**2,477**
Other Infrastructure - Oil Tank Farm				84	15	551	650
Other Infrastructure - Utilities	58		10	55	11	271	403
Transportation - Rail				21	7	506	534
Transportation - Developed Port Terminal						708	708
Transportation - Developed YVR Airside/Groundside	2					179	181
Transportation - Parking / Other				**21**	**12**	**61**	**94**
Transportation Infrastructure - Other				19	4	60	83
Transportation - Parking				2	8	1	12
Other Commercial				**33**	**248**	**50**	**330**
Non-Industrial - Education/Training				3	3	7	14
Non-Industrial - Media Production				2	25	4	31
Non-Industrial - Office				14	201	29	243
Non-Industrial - Recreation				14	12	3	28
Non-Industrial - Banquet/Assembly				1	7	7	15
Retail	**0**			**41**	**187**	**127**	**356**
Non-Industrial - Commercial (big box)				5	75	12	92
Non-Industrial - Commercial (car/trailer)	0			17	41	72	131
Non-Industrial - Commercial (small/medium)				19	71	42	133
Other and Vacant Land Use		**12**	**1**	**111**	**793**	**1,344**	**2,261**
Industrial - Resource Extraction				5	19	309	332
Non-Industrial - Agriculture				2	134	20	156
Non-Industrial - Residential		2		44	183	49	277
Transportation - Vacant Port Lands			1	16		90	106
Transportation - Vacant YVR Airside/Groundside						93	93
Vacant Land		10		45	457	783	1,295
Grand Total	**62**	**16**	**26**	**893**	**2,641**	**7,694**	**11,331**

Table A3.5: Detailed Land Use Classification by Land Ownership Type (ha)

Row Labels	Private	Private - Railway	Public - Federal	Public - Provincial	Public - Local Gvnt.	Crown Corp.	TFN	Grand Total
Building Intensive - Industrial	**4,863**	**20**	**303**	**10**	**93**	**15**		**5,304**
Industrial - General	4,863	20	303	10	93	15		5,304
Land Intensive - Industrial	**370**	**4**	**18**	**15**	**90**	**13**		**510**
Industrial - Outdoor Storage	343	4	17	5	9	11		389
Other Infrastructure - Maint. Yards/Emrgy. Servs.	27		2	10	81	2		121
Large-Scale Infrst./Transpt.	**709**	**474**	**967**	**8**	**126**	**190**	**2**	**2,477**
Other Infrastructure - Oil Tank Farm	615			6	22	6		650
Other Infrastructure - Utilities	29	1	89	2	96	184	2	403
Transportation - Developed Port Terminal	11		697					708
Transportation - Developed YVR Airside/Groundside			181					181
Transportation - Rail	54	473			7			534
Transportation - Parking / Other	**28**		**3**	**11**	**53**			**94**
Transportation - Parking	10			0	1			12
Transportation Infrastructure - Other	17		3	10	52			83
Other Commercial	**296**	**1**	**2**	**8**	**16**	**6**		**330**
Non-Industrial - Banquet/Assembly	14				1			15
Non-Industrial - Education/Training	9	1		3				14
Non-Industrial - Media Production	27			3	1			31
Non-Industrial - Office	221		2	2	12	6		243
Non-Industrial - Recreation	25				3			28
Retail	**353**			**0**	**1**	**0**	**1**	**356**
Non-Industrial - Commercial (big box)	92							92
Non-Industrial - Commercial (car/trailer)	130				1			131
Non-Industrial - Commercial (small/medium)	131			0	1	0	1	133
Other and Vacant Land Use	**1,321**	**18**	**315**	**131**	**311**	**38**	**127**	**2,261**
Industrial - Resource Extraction	290	3	20	4	16			332
Non-Industrial - Agriculture	61		95					156
Non-Industrial - Residential	268		1	0	8	0		277
Transportation - Vacant Port Lands			106					106
Transportation - Vacant YVR Airside/Groundside			93					93
Vacant Land	702	14		127	287	38	127	1,295
Grand Total	**7,940**	**517**	**1,609**	**183**	**690**	**263**	**130**	**11,331**

Appendix 4: Inventory Tables – Sub-Regional Distribution

Table A4.1: Sub-Regional Distribution by Consolidated Land Use Classification (ha)

Row Labels	Building Intensive - Industrial	Land Intensive - Industrial	Large-Scale Infrst./Transpt.	Transportation - Parking / Other	Other Commercial	Retail	Other and Vacant Land Use	Grand Total
Burnaby/New West	799	50	314	27	116	55	77	1,438
Delta/TFN	809	91	341	5	4	22	326	1,598
Langleys	655	24	18	1	26	25	193	942
North Shore	130	6	236	3	12	10	28	426
Northeast Sector	496	28	582	9	5	37	36	1,192
Richmond	886	81	367	20	56	47	307	1,765
Ridge - Meadows	223	34	65			2	419	743
Surrey/White Rock	1,032	156	398	4	63	74	857	2,584
Vancouver	273	39	156	25	48	84	17	642
Grand Total	**5,304**	**510**	**2,477**	**94**	**330**	**356**	**2,261**	**11,331**

Table A4.2: Sub-Regional Distribution by Regional Land Use Designation (ha)

Row Labels	Con-Rec	Rural	Agricultural	General Urban	Mixed Emp	Industrial	Grand Total
Burnaby/New West	1			302	532	603	1,438
Delta/TFN			7	35	59	1,496	1,598
Langleys		3	6	44	219	670	942
North Shore				102	42	282	426
Northeast Sector	1			69	227	896	1,192
Richmond	60		12	149	431	1,113	1,765
Ridge - Meadows			0	66		677	743
Surrey/White Rock		13	1	120	994	1,457	2,584
Vancouver				6	137	499	642
Grand Total	**62**	**16**	**26**	**893**	**2,641**	**7,694**	**11,331**

Table A4.3: Sub-Regional Distribution by Land Ownership Type (ha)

Row Labels	Private	Private - Railway	Public - Federal	Public - Provincial	Public - Local Gvnt.	Crown Corp.	TFN	Grand Total
Burnaby/New West	1,202	36	46	22	75	57		1,438
Delta/TFN	1,010	14	293	17	104	30	130	1,598
Langleys	899			2	33	8		942
North Shore	201	7	191	1	16	10		426
Northeast Sector	958	161	37	14	17	6		1,192
Richmond	1,003	3	663	4	64	27		1,765
Ridge - Meadows	518	72		31	119	3		743
Surrey/White Rock	1,731	186	257	86	204	120		2,584
Vancouver	416	38	121	5	59	3		642
Grand Total	**7,940**	**517**	**1,609**	**183**	**690**	**263**	**130**	**11,331**

Appendix 5: Inventory Tables – Municipal Geographies

Table A5.1: Consolidated Land Use Classification by Municipality (ha)

Row Labels	Building Intensive - Industrial	Land Intensive - Industrial	Large-Scale Infrst./Transpt.	Transportation - Parking / Other	Other Commercial	Retail	Other and Vacant Land Use	Grand Total
Burnaby/New West	**799**	**50**	**314**	**27**	**116**	**55**	**77**	**1,438**
Burnaby	658	32	285	27	115	42	74	1,232
New Westminster	140	18	29	0	1	13	4	206
Delta/TFN	**809**	**91**	**341**	**5**	**4**	**22**	**326**	**1,598**
Delta	809	91	339	5	4	21	198	1,468
TFN			2			1	127	130
Langleys	**655**	**24**	**18**	**1**	**26**	**25**	**193**	**942**
Langley City	80	3		0	1	1	2	86
Langley Township	576	21	18	0	25	24	191	856
North Shore	**130**	**6**	**236**	**3**	**12**	**10**	**28**	**426**
North Vancouver City	36	2	90	1	8	3		140
North Vancouver District	95	4	146	2	5	6	28	286
Northeast Sector	**496**	**28**	**582**	**9**	**5**	**37**	**36**	**1,192**
Coquitlam	249	19	11	3	4	31	6	323
Port Coquitlam	222	8	144	6	0	4	30	415
Port Moody	25	1	426	0	0	1		454
Richmond	**886**	**81**	**367**	**20**	**56**	**47**	**307**	**1,765**
Richmond	886	81	367	20	56	47	307	1,765
Ridge - Meadows	**223**	**34**	**65**			**2**	**419**	**743**
Maple Ridge	149	32	4			2	342	528
Pitt Meadows	75	2	61				77	215
Surrey/White Rock	**1,032**	**156**	**398**	**4**	**63**	**74**	**857**	**2,584**
Surrey	1,032	156	398	4	63	74	857	2,584
Vancouver	**273**	**39**	**156**	**25**	**48**	**84**	**17**	**642**
Vancouver	273	39	156	25	48	84	17	642
Grand Total	**5,304**	**510**	**2,477**	**94**	**330**	**356**	**2,261**	**11,331**

Table A5.2: Detailed Land Use Classification by Municipality (ha)

	Burnaby/New West		Burnaby/New West Total	Delta/TFN		Delta/TFN Total	Langleys		Langleys Total	North Shore		North Shore Total	Northeast Sector			Northeast Sector Total	Richmond	Ridge - Meadows		Ridge - Meadows Total	Surrey/ White Rock	Vancouver	Grand Total
Row Labels	Burnaby	New Westminster		Delta	TFN		Langley City	Langley Township		North Vancouver City	North Vancouver District		Coquitlam	Port Coquitlam	Port Moody			Maple Ridge	Pitt Meadows				
Building Intensive - Industrial	**658**	**140**	**799**	**809**		**809**	**80**	**576**	**655**	**36**	**95**	**130**	**249**	**222**	**25**	**496**	**886**	**149**	**75**	**223**	**1,032**	**273**	**5,304**
Industrial - General	658	140	799	809		809	80	576	655	36	95	130	249	222	25	496	886	149	75	223	1,032	273	5,304
Land Intensive - Industrial	**32**	**18**	**50**	**91**		**91**	**3**	**21**	**24**	**2**	**4**	**6**	**19**	**8**	**1**	**28**	**81**	**32**	**2**	**34**	**156**	**39**	**510**
Industrial - Outdoor Storage	16	17	34	85		85	2	12	14	1	1	2	7	1	1	9	67	32		32	137	10	389
Other Infrastructure - Maint. Yards/Emrgy. Servs.	16	1	16	6		6	1	9	10	2	2	4	12	7	0	20	14		2	2	19	29	121
Large-Scale Infrst./Transpt.	**285**	**29**	**314**	**339**	**2**	**341**		**18**	**18**	**90**	**146**	**236**	**11**	**144**	**426**	**582**	**367**	**4**	**61**	**65**	**398**	**156**	**2,477**
Other Infrastructure - Oil Tank Farm	252		252	6		6					3	3			389	389							650
Other Infrastructure - Utilities	28	0	28	87	2	89		18	18	1	20	21	3	1		4	108	4	1	4	127	4	403
Transportation - Developed Port Terminal				244		244				82	70	152			37	37	68				91	115	708
Transportation - Developed YVR Airside/Groundside																	181						181
Transportation - Rail	5	29	34	2		2				7	53	60	8	144		151	10		61	61	180	37	534
Transportation - Parking / Other	**27**	**0**	**27**	**5**		**5**	**0**	**0**	**1**	**1**	**2**	**3**	**3**	**6**	**0**	**9**	**20**				**4**	**25**	**94**
Transportation - Parking	1		1	1		1		0	0	0	0	1	1		0	2					0	7	12
Transportation Infrastructure - Other	26	0	26	5		5	0		0	1	1	2	2	6		8	20				4	18	83
Other Commercial	**115**	**1**	**116**	**4**		**4**	**1**	**25**	**26**	**8**	**5**	**12**	**4**	**0**	**0**	**5**	**56**				**63**	**48**	**330**
Non-Industrial - Banquet/Assembly	1	0	1				0	4	5						0	0	1				7	1	15
Non-Industrial - Education/Training								1	1												7	6	14
Non-Industrial - Media Production	17		17							6	0	6			0	0						9	31
Non-Industrial - Office	90	1	91	3		3	0	13	14	1	3	4	3	0	0	4	52				44	31	243
Non-Industrial - Recreation	7		7	0		0		7	7	1	2	2	1			1	4				7	1	28
Retail	**42**	**13**	**55**	**21**	**1**	**22**	**1**	**24**	**25**	**3**	**6**	**10**	**31**	**4**	**1**	**37**	**47**	**2**		**2**	**74**	**84**	**356**
Non-Industrial - Commercial (big box)	13	5	18							3		3	12			12	18				19	22	92
Non-Industrial - Commercial (car/trailer)	19	6	25	17		17		9	9	0	0	1	4	4	0	8	16	1		1	23	31	131
Non-Industrial - Commercial (small/medium)	9	2	11	4	1	5	1	16	17	0	6	6	15	0	1	17	13	1		1	33	31	133
Other and Vacant Land Use	**74**	**4**	**77**	**198**	**127**	**326**	**2**	**191**	**193**		**28**	**28**	**6**	**30**		**36**	**307**	**342**	**77**	**419**	**857**	**17**	**2,261**
Industrial - Resource Extraction	1		1	83		83					12	12	5	3		8	81	121	4	125	23		332
Non-Industrial - Agriculture	0		0					5	5										20	20	131		156
Non-Industrial - Residential	5	0	6	2		2	2	74	77		0	0	0	0		1	5	5		5	181	2	277
Transportation - Vacant Port Lands				14		14					16	16					77					0	106
Transportation - Vacant YVR Airside/Groundside																	93						93
Vacant Land	67	4	71	100	127	227	0	111	111		1	1	1	27		28	51	216	53	269	522	15	1,295
Grand Total	**1,232**	**206**	**1,438**	**1,468**	**130**	**1,598**	**86**	**856**	**942**	**140**	**286**	**426**	**323**	**415**	**454**	**1,192**	**1,765**	**528**	**215**	**743**	**2,584**	**642**	**11,331**

Table A5.3: Regional Land Use Designation by Municipality (ha)

Row Labels	Con-Rec	Rural	Agricultural	General Urban	Mixed Emp	Industrial	Grand Total
Burnaby/New West	**1**			**302**	**532**	**603**	**1,438**
Burnaby	1			247	526	458	1,232
New Westminster				55	6	144	206
Delta/TFN			**7**	**35**	**59**	**1,496**	**1,598**
Delta			7	35	59	1,366	1,468
TFN						130	130
Langleys		**3**	**6**	**44**	**219**	**670**	**942**
Langley City				17	22	47	86
Langley Township		3	6	27	197	622	856
North Shore				**102**	**42**	**282**	**426**
North Vancouver City				3	42	95	140
North Vancouver District				99		187	286
Northeast Sector	**1**			**69**	**227**	**896**	**1,192**
Coquitlam				48	221	53	323
Port Coquitlam				11	5	399	415
Port Moody	1			9		444	454
Richmond	**60**		**12**	**149**	**431**	**1,113**	**1,765**
Richmond	60		12	149	431	1,113	1,765
Ridge - Meadows			**0**	**66**		**677**	**743**
Maple Ridge			0	6		521	528
Pitt Meadows				59		156	215
Surrey/White Rock		**13**	**1**	**120**	**994**	**1,457**	**2,584**
Surrey		13	1	120	994	1,457	2,584
Vancouver				**6**	**137**	**499**	**642**
Vancouver				6	137	499	642
Grand Total	**62**	**16**	**26**	**893**	**2,641**	**7,694**	**11,331**

Table A5.4: Land Ownership Type by Municipality (ha)

Row Labels	Private	Private - Railway	Public - Federal	Public - Provincial	Public - Local Gvnt.	Crown Corp.	TFN	Grand Total
Burnaby/New West	**1,202**	**36**	**46**	**22**	**75**	**57**		**1,438**
Burnaby	1,079	7	6	20	71	49		1,232
New Westminster	124	29	40	1	4	7		206
Delta/TFN	**1,010**	**14**	**293**	**17**	**104**	**30**	**130**	**1,598**
Delta	1,010	14	293	17	104	30		1,468
TFN							130	130
Langleys	**899**			**2**	**33**	**8**		**942**
Langley City	83				2	1		86
Langley Township	816			2	31	6		856
North Shore	**201**	**7**	**191**	**1**	**16**	**10**		**426**
North Vancouver City	42	7	88		1	1		140
North Vancouver District	158		103	1	15	8		286
Northeast Sector	**958**	**161**	**37**	**14**	**17**	**6**		**1,192**
Coquitlam	301	8		4	5	5		323
Port Coquitlam	249	153		2	11	1		415
Port Moody	408		37	8	1			454
Richmond	**1,003**	**3**	**663**	**4**	**64**	**27**		**1,765**
Richmond	1,003	3	663	4	64	27		1,765
Ridge - Meadows	**518**	**72**		**31**	**119**	**3**		**743**
Maple Ridge	414			31	79	3		528
Pitt Meadows	104	72			39			215
Surrey/White Rock	**1,731**	**186**	**257**	**86**	**204**	**120**		**2,584**
Surrey	1,731	186	257	86	204	120		2,584
Vancouver	**416**	**38**	**121**	**5**	**59**	**3**		**642**
Vancouver	416	38	121	5	59	3		642
Grand Total	**7,940**	**517**	**1,609**	**183**	**690**	**263**	**130**	**11,331**

Appendix 6: Inventory Tables – Municipal Designation and Zoning

Table A6.1: Municipal Designation / Zoning by Sub-Region (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	No OCP, Yes Zoning	Grand Total
Burnaby/New West.	1,115	37	286	1,438
Delta/TFN	1,439	149	10	1,598
Langleys	660	210	72	942
North Shore	378	29	19	426
Northeast Sector	1,116	39	38	1,194
Richmond	1,531	164	69	1,765
Ridge - Meadows	358	379	7	743
Surrey/White Rock	1,669	910	5	2,584
Vancouver	637		5	642
Grand Total	**8,904**	**1,917**	**511**	**11,331**

Table A6.2: Municipal Designation / Zoning by Consolidated Land Use Classification (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	No OCP, Yes Zoning	Grand Total
Building Intensive - Industrial	4,682	273	350	5,305
Land Intensive - Industrial	413	80	17	510
Transportation - Parking / Other	88	5	3	95
Large-Scale Infrst./Transpt.	2,271	117	88	2,476
Other Commercial	248	64	19	330
Retail	257	64	35	356
Other and Vacant Land Use	946	1,315		2,261
Grand Total	**8,904**	**1,917**	**511**	**11,331**

Table A6.3: Municipal Designation / Zoning by Land Ownership Type (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	No OCP, Yes Zoning	Grand Total
Private	6,265	1,193	483	7,942
Private - Railway	511	4		516
Public - Federal	1,383	217	9	1,609
Public - Provincial	94	86	3	183
Public - Local Govt.	417	265	9	691
Crown Corporation	235	22	6	263
TFN		130		130
Grand Total	**8,904**	**1,917**	**511**	**11,331**

Table A6.4: Municipal Designation / Zoning by Regional Land Use Designation (ha)

Row Labels	Yes OCP, Yes Zoning	Yes OCP, No Zoning	No OCP, Yes Zoning	Grand Total
Con-Rec	2	58	2	62
Rural	1	12	3	16
Agricultural	12	6	8	26
General Urban	337	135	421	893
Mixed Emp	1,756	878	10	2,644
Industrial	6,797	829	67	7,692
Grand Total	**8,904**	**1,917**	**511**	**11,331**

Appendix 7: Inventory Tables – Regional and Municipal Designations

Table A7.1: Regional and Municipal Designations by Sub-Region (ha)

Row Labels	Industrial, Yes OCP	Industrial, No OCP	Mixed Emp., Yes OCP	Mixed Emp., No OCP	General Urban, Yes OCP	General Urban, No OCP	Grand Total
Burnaby/New West.	603		523	9	25	278	1,438
Delta/TFN	1,491	6	59		39	4	1,598
Langleys	622	47	219		29	25	942
North Shore	282		42	0	83	18	426
Northeast Sector	883	13	228		45	25	1,194
Richmond	1,113		431		151	69	1,765
Ridge - Meadows	677				59	7	743
Surrey/White Rock	1,457		993	1	130	4	2,584
Vancouver	497		139		2	5	642
Grand Total	**7,626**	**67**	**2,634**	**10**	**562**	**434**	**11,331**

Table A7.2: Regional and Municipal Designations by Regional Land Use Designation (ha)

Row Labels	Industrial, Yes OCP	Industrial, No OCP	Mixed Emp., Yes OCP	Mixed Emp., No OCP	General Urban, Yes OCP	General Urban, No OCP	Grand Total
Industrial	7,626	67					7,692
Mixed Emp			2,634	10			2,644
General Urban					471	421	893
Agricultural					18	8	26
Rural					13	3	16
Con-Rec					60	2	62
Grand Total	**7,626**	**67**	**2,634**	**10**	**562**	**434**	**11,331**

Table A7.3: Regional and Municipal Designations by Land Use Classification (ha)

Row Labels	Industrial, Yes OCP	Industrial, No OCP	Mixed Emp., Yes OCP	Mixed Emp., No OCP	General Urban, Yes OCP	General Urban, No OCP	Grand Total
Building Intensive - Industrial	3,505	59	1,258	8	192	283	5,305
Land Intensive - Industrial	331	3	102	1	60	14	510
Transportation - Parking / Other	62		12		18	3	95
Large-Scale Infrst./Transpt.	2,213		34		141	88	2,476
Other Commercial	50		248		14	19	330
Retail	122	5	186	1	13	29	356
Other and Vacant	1,344		793		124		2,261
Grand Total	**7,626**	**67**	**2,634**	**10**	**562**	**434**	**11,331**

Table A7.4: Regional and Municipal Designations by Land Ownership Type (ha)

Row Labels	Industrial, Yes OCP	Industrial, No OCP	Mixed Empl., Yes OCP	Mixed Emp., No OCP	General Urban, Yes OCP	General Urban, No OCP	Grand Total
Private	4,942	65	2,231	9	285	409	7,942
Private - Railway	486		9		21		516
Public - Federal	1,402	1	101		96	8	1,609
Public - Provincial	129	0	38	1	12	2	183
Public - Local Gvnt.	363	0	212	0	107	9	691
Crown Corporation	173		43		41	6	263
TFN	130						130
Grand Total	**7,626**	**67**	**2,634**	**10**	**562**	**434**	**11,333**

Note: ‘General Urban’ in the tables include small areas of lands regionally designated in *Metro 2040* as ‘Conservation & Recreation’, ‘Rural’, and Agricultural’.

Appendix 8: Inventory Tables – Total Inventory Site Size Distribution

Table A8.1: Site Size Distribution by Consolidated Land Use Classification (ac/ha)

Row Labels	less than 1 acre	1.0 to 4.9 acres	5.0 to 9.9 acres	10.0 to 19.9 acres	20.0 to 49.9 acres	50.0 acres and over	Grand Total
Building Intensive - Industrial	456	2,125	1,121	804	554	244	5,304
Land Intensive - Industrial	46	198	124	71	70		510
Large-Scale Infrst./Transpt.	12	98	105	136	233	1,891	2,477
Other and Vacant Land Use	76	547	260	309	575	493	2,261
Other Commercial	37	188	75	30			330
Retail	49	171	71	47	18		356
Transportation - Parking / Other	5	14	19	32	23		94
Grand Total	**681**	**3,342**	**1,776**	**1,430**	**1,473**	**2,629**	**11,331**

Table A8.2: Site Size Distribution by Regional Land Use Designation (ac/ha)

Row Labels	less than 1 acre	1.0 to 4.9 acres	5.0 to 9.9 acres	10.0 to 19.9 acres	20.0 to 49.9 acres	50.0 acres and over	Grand Total
Con-Rec	1	2	2			58	62
Rural	0	13	3				16
Agricultural	2	6	3	5	10		26
General Urban	137	270	182	96	73	135	893
Mixed Emp	170	1,225	523	363	266	94	2,641
Industrial	371	1,828	1,063	966	1,125	2,342	7,694
Grand Total	**681**	**3,342**	**1,776**	**1,430**	**1,473**	**2,629**	**11,331**

Table A8.3: Site Size Distribution by Land Ownership Type (ac/ha)

Row Labels	less than 1 acre	1.0 to 4.9 acres	5.0 to 9.9 acres	10.0 to 19.9 acres	20.0 to 49.9 acres	50.0 acres and over	Grand Total
Private	637	3,011	1,503	992	734	1,062	7,940
Private - Railway	1	28	38	45	22	382	517
Public - Federal	9	97	112	167	344	880	1,609
Public - Provincial	6	36	30	30	81		183
Public - Local Gvnt.	25	133	63	142	196	131	690
Crown Corp.	3	32	27	45	59	97	263
TFN		5	3	10	38	75	130
Grand Total	**681**	**3,342**	**1,776**	**1,430**	**1,473**	**2,629**	**11,331**

Appendix 9: Inventory Tables – Vacant Site Size Distribution

Table A9.1: Site Size Distribution of Vacant Lands by Regional Land Use Designation (ac/ha)

Row Labels	Industrial	Mixed Emp	General Urban	Agricultural	Rural	Grand Total
Other and Vacant Land Use	**1,344**	**793**	**111**	**1**	**12**	**2,261**
less than 1 acre	39	23	13	1	0	76
1.0 to 4.9 acres	176	310	50		12	547
5.0 to 9.9 acres	110	117	33			260
10.0 to 19.9 acres	190	120				309
20.0 to 49.9 acres	400	159	16			575
50.0 acres and over	429	64				493
Grand Total	**1,344**	**793**	**111**	**1**	**12**	**2,261**

Table A9.2: Site Size Distribution of Vacant Lands by Land Ownership Type (ac/ha)

Row Labels	Private	Private - Railway	Public - Federal	Public - Provincial	Public - Local Gvnt.	Crown Corp.	TFN	Grand Total
Other and Vacant Land Use	**1,321**	**18**	**315**	**131**	**311**	**38**	**127**	**2,261**
less than 1 acre	63		2	3	8	0		76
1.0 to 4.9 acres	440		14	23	62	6	2	547
5.0 to 9.9 acres	206	9	16	11	15		3	260
10.0 to 19.9 acres	160		43	23	60	14	10	309
20.0 to 49.9 acres	182	8	121	71	137	19	38	575
50.0 acres and over	270		119		29		75	493
Grand Total	**1,321**	**18**	**315**	**131**	**311**	**38**	**127**	**2,261**

Table A9.3: Site Size Distribution of Vacant Lands by Count

Lot Size	Count	% Share
less than 1 acre	564	44%
1.0 to 4.9 acres	523	40%
5.0 to 9.9 acres	93	7%
10.0 to 19.9 acres	53	4%
20.0 to 49.9 acres	48	4%
50.0 acres and over	13	1%
Vacant Inventory	**1,294**	**100%**

Appendix 10: Industrial Lands Inventory Workshop Participants

Metro Vancouver would like to thank the Metro Vancouver Industrial Lands stakeholder workshop participants for their input and contribution throughout this process. The following people attended one or both of the two workshops held in late 2015, and some provided additional feedback comments.

First Name	Last Name	Title	Organization
Andrew	Petrozzi	Vice-President, Research	Avison Young
Jason	Tonin	Director, Land Development	Beedie Group
Matthew	Boddy	Research Team Lead - Vancouver	CBRE
Lily	Ford	Zoning Planner	City of Burnaby
Lynn	Roxburgh	Planner	City of New Westminster
Suzanne	Smith	Planner	City of North Vancouver
Meredith	Seeton	Planner	City of Port Coquitlam
Onkar	Buttar	Planning Analyst	City of Richmond
Tina	Atva	Senior Planning Coordinator	City of Richmond
Stuart	Jones	Senior Planner	City of Surrey
Chris	Clibbon	Planner	City of Vancouver
Nicola	Sharp	Analyst	City of Vancouver
Sean	McBain	Industrial Market Intelligence Coordinator	Colliers International
Nancy	McLean	Planner II	Corporation of Delta
Andrea	Welburn	Research and Information Manager	Cushman & Wakefield Ltd.
Darren	Veres	Policy Planner	District of North Vancouver
Bob	Wilds	Managing Director	Greater Vancouver Gateway Council
Geoff	Heu	Senior Director of Development	GWL Realty Advisors
Ian	Mellor	Special Advisor - Workforce Development Division & Major Investments Office	Ministry of Jobs, Tourism and Skills Training
Chris	MacCauley	Vice President - Industrial Lands	NAIOP Rep. (CBRE)
Drew	Gilbertson	Senior Leasing Manager, Industrial	Oxford Properties Group
Christopher	Correia	Planning Analyst	Pacific Land Group.
Jeff	Burton	Manager, Real Estate	Port Metro Vancouver
Jason	Macnaughton	Director Stakeholder and Community Engagement	Province - Real Property Division
Bruce	Hoskins	Senior First Nations Analyst, Shared Services BC	Province - Real Property Division
Richard	Wozny	Principal	Site Economics Ltd.
Russell	Nelson	Senior Long Range Planner	Township of Langley
Joanna	Clark	Planner, System Planning	TransLink
Meg	Comiskey	Manager, Policy & Research	Vancouver Airport Authority
Ian	Smedley	Consultant	Vancouver Airport Authority

Appendix 11: Inventory Methodology Process

Project Process Steps

The Metro Vancouver 2015 Industrial Lands Inventory was prepared using the following process steps. It is important to emphasize that 2015 Inventory results should not be compared at face value with published results from previous 2005 and 2010 Inventories due to subtle methodological differences and inconsistencies including:

1. **Inventory Boundary Delineations** – Each Inventory snapshot (2005, 2010, and 2015) uses a slightly different shoreline boundary that cumulatively impacts land area calculations for waterfront sites.
2. **Inventory Universe** – Industrial-serving additional lands (e.g. intermodal yards and sewerage treatment plants) were included in the 2010 and 2015 Inventories, but not the 2005 Inventory.
3. **Municipal Staff Policy Interpretation** – At times, different municipal policy requires interpretation and judgment. Despite no policy change, policy interpretation has shown to vary among the 2005, 2010, and 2015 Inventories.

The revised 2005 and 2010 Inventory numbers included within this report have been adjusted from previously published reports to reflect the application of these edits to the methodology, and are thus more comparable with the 2015 Inventory results.

The 2015 Inventory attempts to account for the above methodological differences and inconsistencies by neutralizing their cumulative impact through a ‘back-casting’ of 2010 and 2005 published Inventory results into ‘2005 Revised’ and ‘2010 Revised’ figures thereby enabling direct comparisons and measures of ‘net’ change between 2015 results with modified results from past Inventories.

All lands that were municipally designated as Industrial (in municipal Official Community Plans and/or Neighbourhood Plans, or equivalent) were included in the Inventory. In addition, properties that were not designated Industrial, but were zoned (or equivalent) Industrial and developed / used as industrial, or zoned as comprehensive development and developed / used as industrial were included (see definitions). As well, the Inventory incorporates the Port Metro Vancouver (PMV), YVR Vancouver Airport Authority, and Tsawwassen First Nations (TFN) land use plans plus Metro Vancouver’s *Metro 2040* land use designations.

Step 1) Review of Literature
A literature review was undertaken of industrial lands inventories from other jurisdictions, to identify possible parameters to include in the industrial lands database. This review also considered feedback from the 2010 Inventory project process and results.

Step 2) Data Compilation
The 2015 Inventory is developed in a GIS and uses property cadastre is its primary spatial building block. Municipal OCP and zoning data plus the land use of other agencies (e.g. PMV, YVR, TFN, etc.) were overlaid with the property cadastre and coded accordingly.

Property parcels were then linked to the 2012 BC Assessment Authority (BCAA) database which populated parcels with address, actual use, ownership, assessed value and other property parameters. Inventory property parcels were then linked to the Dun & Bradstreet business database which provided secondary information on company name and type of business activity. The resulting GIS feature class was overlaid with the 2014 and 2015 aerial photography and analysed along with the embedded database information in order to attribute the Inventory's land use type and utilization information. The classification procedure enabled the examination or removal of anomalies in the database.

Step 3) Reconciling Data Gaps
A substantive amount of technical effort went into filling in data gaps – particularly with improving relational database linkages between the industrial parcels and the BCAA database, and also in consolidating property parcels into contiguous industrial operating sites. This latter step resulted in the 2015 Inventory consolidating from its initial 11,000 industrial parcels down to 8,700 industrial sites.

Step 4) Consultation
Metro Vancouver organized workshop meetings with stakeholders, including industry, municipalities, and agencies such as the Port Metro Vancouver, Vancouver Airport Authority, TransLink, to review project methodology, preliminary mapping, and draft results. In late 2015, detailed draft maps showing individual industrial parcels were reviewed by municipalities that had large industrial lands holdings, as well as agencies, and local brokerage firms, and their feedback was incorporated into the database.

Step 5) Revisions to Inventory
The 2015 Inventory was revised based on additional available data, refined definitions, and stakeholder feedback.

Step 6) Review Draft Inventory Report
The draft inventory report was distributed in early 2016 to the stakeholder group for review and comment. The feedback from this review culminated in the final Metro Vancouver 2015 Industrial Lands Inventory technical report.

Stakeholder Engagement

The 2015 Industrial Lands Inventory involved consultation with municipal planning staff and the development community, as well as other agencies and parties. In late 2015, Metro Vancouver staff hosted two stakeholder working group meetings (September 30 and December 1) to review the project methodology, inventory mapping results, receive feedback on the preliminary results, and discuss draft findings.

The stated purpose of the industrial lands working group was to:

- Engage with industrial land stakeholders
- Build support for inventory project
- Develop familiarity / understanding of issues
- Explain project process and methodology

- Receive feedback on specific components
- Discuss application of results / findings

An information report about the status of the 2015 Industrial Lands Inventory project was provided to the Regional Planning Advisory Committee on September 12, 2014, as was a report about the draft methodology for the inventory on May 1, 2015. The Regional Planning Committee received information reports on the status of the project on October 3, 2014 and September 4, 2015. The committees provided feedback to Metro Vancouver staff which was considered as the project advanced. The final report was advanced to the Regional Planning Committee and GVRD Board for acceptance in early 2016.

Appendix 12: Summary of Stakeholder Participant Feedback

As part of the engagement process for the 2015 Industrial Lands Inventory, Metro Vancouver hosted two industry workshops in late 2015. Participants included representatives from member municipalities, agencies, brokerage, and the development community. During and after this process, various forms of feedback from participants were received on the inventory methodology as well as preliminary results.

Comments on the 2015 Industrial Lands Inventory methodology and preliminary findings included:

- Recognition of the challenges of completing an inventory for diverse lands, some with multiple or mixed uses on single sites.
- Recognition that industrial land uses are evolving, and not all lands currently used for industrial purposes or in the inventory will remain industrial in the future.
- From municipalities, additional property information to inform adjustments to land use classifications.
- From brokers, additional information related to recent development or transaction activities (although the inventory was as of mid-2015, thus subsequent changes will not be reflected until a future inventory).
- City of Vancouver's interest in creating a 'mixed use' land use category to classify a wide variety of uses in urban locations such as Mt. Pleasant.
- Port Metro Vancouver's interest in creating a 'trade enabling' land use category, which would include port, rail, logistics and other related facilities used to support the trade function of the region and serve the nation.
- Comments that airport runways should not be included in the inventory. And for YVR airport, noting that some of the lands under federal jurisdiction are intended for not necessarily industrial development (namely commercial), or may have limitations in terms of type of industry permitted (airport related only).
- There was interest in further exploring employment forms and densities associated with industrial lands, recognizing that industry may be capital intensive with relatively few on-site employees but support other businesses and employment, while other forms of industry or quasi-industry may have much greater employment.
- Concern by some municipalities that the inventory may be used as a tool to monitor industrial land conversions beyond lands designated as 'Industrial' or 'Mixed Employment' in *Metro 2040*.
- Suggestions on how the inventory results could be analyzed, mapped, illustrated, and communicated.

These comments led to some adjustments and refinements to land use classifications and definitions. Some of these items may be further explored through future study in cooperation with partners.

Comments about the methodology for the industrial land market readiness timing and potential redevelopment / intensification studies included:

- Specific comments on the types of features (such as water access, rail access) or constraints that should be considered, although acknowledging the challenge in completing an assessment of site specific constraints at a mass scale.
- Note that intensification is already occurring by the market, through, for example, larger industrial buildings and higher ceilings.
- Rising land prices and strong demand are increasingly making marginal industrial lands, in terms of location or physical challenges, more financially viable and the market is responding by developing these lands in the short and medium terms.
- That not just municipal official community plans, but also municipal local / area / neighbourhood plans should be considered in the industrial classification process.
- That for certain areas with a high degree of mixed use and multi-tenant buildings, such as parts of the City of Vancouver, the inventory may be less reliable than other parts of the region with more clear-cut single uses.

These comments will be considered for the future study of industrial land market readiness and redevelopment / intensification potential.

Appendix 13: Land Use Classification Definitions

The following land use classification definitions reference the predominate or primary use of the site, including normally associated on-site accessory / ancillary uses (including parking and loading areas), as of mid-2015. Sites may include multiple or overlapping and non-discrete uses, in which case the predominant use is considered for the classification. A 'site' may represent multiple separate legal properties consolidated for the purposes of the Inventory analysis. Current land use classification is independent of future-oriented land use designations.

Building-Intensive Industrial

1. **General Industrial:** Wide variety of heavy and light industrial uses, including logistics, warehousing, manufacturing, production, distribution, and repair functions of various scales, and limited industrial-related accessory uses, such as on-site retail, office, and associated improvements to land (i.e. finished surface) and/or related outdoor storage. This also includes: processing, handling, or stockpiling of natural resources, such as lumber, saw mills, shingle mills, aggregates, and asphalt / concrete mixing (excluding such activities occurring on "Transportation Infrastructure" lands).

Land-Intensive Industrial

2. **Industrial - Outdoor Storage:** Ongoing and temporary land-intensive outdoor storage of miscellaneous / scrap materials, solid waste / recyclable goods, auto-wreckers / vehicle parts, truck / chassis parking, shipping containers, construction materials, and heavy equipment / machinery (excludes "Industrial - Resource Extraction" and Port Terminal related storage / stockpiling).
3. **Other Infrastructure - Maintenance Yards / Emergency Services:** Municipal, corporate, and agency works yards involving the storage and maintenance of road, construction, and maintenance equipment and supplies, and ambulance / fire truck stations.

Large-Scale Infrastructure / Transportation

4. **Other Infrastructure - Utilities:** Electricity, natural gas, telephone, cable, communication towers, power sub-stations, liquid and solid waste management facilities, and other related / supporting functions, etc.
5. **Other Infrastructure - Oil Tank Farm:** Facilities for petroleum products transportation, storage, or processing, including refineries, as well as associated hazard separation setback areas.
6. **Transportation Infrastructure - Rail Yards:** Rail intermodal yards (excluding individual rail lines / corridors, which are not included in the Inventory; rail spurs located on properties are classified as per the primary use of that property).
7. **Transportation Infrastructure - YVR Airside / Groundside Developed*:** Airside lands refer to restricted industrial lands that are developed and reserved exclusively for airport-related industrial activities (e.g. airplane maintenance) requiring immediate access to runways and

taxiways and are not available for general market industrial use. Groundside lands refer to restrictive industrial lands that are developed and not available for general market industrial, but permit uses that are 'airport compatible' (e.g. couriers) and are further limited by restrictions on building height and design because of adjacent flight paths. Airfields are not included in the Inventory.

8. **Transportation Infrastructure - Port Terminal Developed*:** Developed lands directly associated with port terminals / dock / wharf and equipment used for loading and unloading (and associated storage / stockpiling) of various types of goods (e.g. autos, bulk, breakbulk, and containers).

Transportation Infrastructure – Parking / Other

9. **Transportation Infrastructure - Other:** Parking / storage / maintenance of transit operations (including TransLink depots) and large taxi operations located on Inventory lands.
10. **Transportation Infrastructure - Parking:** Properties that are used exclusively for parking of vehicles without another primary use, in the form of either surface parking lots or structured parking facilities, where ownership is not associated with adjacent properties / businesses (excludes lands used for the temporary storage of newly imported vehicles which is classified as "Industrial - Outdoor Storage").

Retail Uses

11. **Non-Industrial - Retail (big box):** Major stand-alone retail or wholesale units (chain stores or stores over 50,000 sq ft building sizes) and associated parking.
12. **Non-Industrial - Retail (small or medium-scale):** Individual or multiple retail uses (under 50,000 sq ft building sizes) and associated parking.
13. **Non-Industrial - Retail (car / trailer dealerships):** New and used vehicle sales lots and business operations for showing, storing, and selling of vehicles (e.g. auto, trailer, boats) (excludes the temporary storage of newly imported vehicles which is classified as "Transportation Infrastructure – Port Terminal", and vehicle maintenance facilities which are classified as "General Industrial")

Other Commercial Uses

14. **Non-Industrial - Office:** Stand-alone office building and associated parking, which may include retail uses on the ground level.
15. **Non-Industrial - Media Production:** Facilities used for production or broadcast of film / movies / videos, such as filming / recording studios, sound-stages, equipment storage / rental, however excludes software production offices.
16. **Non-Industrial - Banquet Hall / Assembly:** Assembly facilities and associated parking, used for religious or non-religious large-scale assembly / gathering uses and events.
17. **Non-Industrial – Education / Training:** Training, vocational school or other educational related functions, which may or may not include a classroom component.

18. **Non-Industrial - Indoor Recreation:** Indoor recreational uses, such as fitness facilities, racket clubs, and other recreational activities.

Other Uses / Vacant

19. **Non-Industrial - Agriculture:** Agricultural or farming relates uses (independent of Agricultural Land Reserve designation or BCAA Farm Class status), as a possible holding use for future conversion.
20. **Non-Industrial - Residential:** Residential use, typically an older single detached house and yard, as a possible holding use for future conversion.
21. **Industrial - Resource Extraction:** Earth extraction uses, such as aggregates / gravel / sand pits, and peat.
22. **Transportation Infrastructure - YVR Airside / Groundside Vacant***: Airside lands refer to restricted industrial lands intended for development and are reserved exclusively for airport-related industrial activities (e.g. airplane maintenance) requiring immediate access to runways and taxiways and are not available for general market industrial use. Groundside lands refer to restrictive industrial lands intended for development and are not available for general market industrial, but permit uses that are 'airport compatible' (e.g. couriers) and are further limited by restrictions on building height and design because of flight paths. Runways and airfields are not included in the Inventory.
23. **Transportation Infrastructure - Port Terminal Vacant*:** Vacant lands directly associated with port terminals / dock / wharf and equipment intended for use for loading and unloading (and associated storage / stockpiling) of various types of goods (e.g. autos, bulk, breakbulk, and containers).
24. **Vacant Land:** Lands that do not have any identified improvements or uses of any sort or type (either industrial or non-industrial).

**** Note: These lands may have restrictions on tenure, use, and development and not available for general market industrial, but permit uses that are port or airport compatible. For more detailed information, please refer to the YVR Master Plan or Port Metro Vancouver Land Use Plan, as applicable.***

Appendix 14: Past Inventories and Subsequent Refinements

Past Metro Vancouver Industrial Lands Inventories

In 2005 and 2010, Metro Vancouver completed Inventories of the industrial lands in the region. The purpose of the parcel-based Industrial Lands Inventories was to:

- Estimate how much land was allocated for industrial use in Metro Vancouver and where those industrial lands were located within the region.
- Estimate how much of the industrial land base was 'Developed' with industrial activity, and how much was 'Vacant' (not utilized by industry, but designated for future industrial development).
- Compare the 2010 Inventory with the findings of the 2005 Inventory to assess changes.

The 2005 and 2010 Inventories used the following definitions:

- *Industrial Land:* Lands designated by municipal Official Community Plans for industrial uses, or land zoned and utilized for industrial uses.
- *Developed Industrial Land: Industrial Land* that is wholly or partially utilized for industrial related uses, which includes properties used for outdoor storage. This also includes office, retail, or institutional uses that are allowed within municipal industrial zones.
- *Vacant Industrial Land: Industrial Land* that is not utilized for industrial related uses, which includes industrial properties that are completely vacant as well as industrial properties currently utilized for residential and agriculture uses.

For both the past 2005 and 2010 Inventories, Metro Vancouver considered only whether the land was 'Developed' or 'Vacant'. In actuality, industrial lands have different types of uses, levels of utilization, and development potential due to various site and area factors or characteristics.

Refinements Over Past Inventories

The previous binary Inventory classification did not reflect the on-the-ground reality that some 'Developed' properties are only partially utilized (and have significant redevelopment and intensification potential), nor the fact that some 'Vacant' properties may have significant development constraints (or are being used for other non-industrial purposes).

The past Inventories did not include the level of data to provide a detailed picture of industrial land uses and utilization level, as well as market readiness and intensification potential. Specifically, although these Inventories allowed for a tally of the industrial lands in the region (i.e., 'Developed' and 'Vacant'), they did not assess the level of utilization, consider land ownership and designations, include site physical constraints, or have the ability to analyze the future capacity of the lands. Past analysis was limited to high level reporting.

The enhanced data collection and classification system addresses limitations and criticisms inherent in previous industrial lands Inventory projects. Building on past work, the 2015 Industrial Lands Inventory provides enhanced detail about the industrial land supply in the region. The 2015 Inventory data is classified by development status, type of use, utilization level, land ownership, municipal and regional designations, and other characteristics, with an aim to informing municipal and regional plans and policies, and public and private sector investments. The 2015 Inventory allows for greater refinement and understanding of the industrial land use and capacity, while still allowing for comparisons of change over time.

The revised 2005 and revised 2010 Inventory results reflect adjustments (both inclusions and exclusions) made to the original published Inventories that account for and neutralize varying municipal staff interpretation in comparison to the 2015 Inventory. As well, the revised 2005 figures reflect the inclusion of 385 ha (954 ac) of developed lands (at Port Coquitlam and Surrey intermodal yards, plus sewerage treatment plants at Iona and Annacis Island) and the inclusion of 66 ha (163 ac) of ‘Vacant’ lands (at Delta's peat bog). Further, the revised 2005 and 2010 Inventory results reflect continued refinements to more accurate shoreline boundaries and other alignments reflected in the 2015 Inventory.

The improvements to the 2015 Inventory also reflected the following factors:

- Improved GIS mapping / boundaries information
- Improved consistency in terms of applying criteria for land classifications
- Improved consistency in terms of recognizing site constraints
- Removing un-developable lands due to transportation and infrastructure right-of-ways

These refinements improve the Inventory and also make it possible to directly and accurately compare the 2015 Inventory with the 2010 and 2005 Inventory results (both revised) to assess changes over time.

Appendix 15: Market Readiness / Redevelopment / Intensity Factors

Property information collected through the 2015 Inventory, which can be used for further analysis:

Land Ownership / Tenure

- Private – fee simple, strata
- Private (rail)
- Crown Corporations
- Public (municipal / regional)
- Public (Provincial)
- Public (Federal)
- Public (First Nations)
- Public (Port)
- Public (YVR)

Site Physical

- Site size
- Year building built / major renovated
- Assessed value of land / improvements
- Rights of Way (ROWs)
- Riparian areas (setback)
- Floodplain
- Topography / grade
- Utilities / servicing

Site Regulatory

- Land use classification
- Municipal industrial designation
- Municipal industrial zoning
- Regional land use designations

Proximity / Accessibility

- Truck Route Roads
- Frequent Transit Network Service / Skytrain Station
- Port Terminals
- Airport
- Rail Intermodal Yards
- Rail Spur Line
- Highway Interchanges
- Navigable Waterway

Appendix 16: Reference Documents

Metro Vancouver Regional Growth Strategy Website:

www.metrovancouver.org/services/regional-planning/metro-vancouver-2040

- Metro Vancouver 2040: Shaping Our Future (2011, as amended)
- Implementation Guideline #5: Metro Vancouver Industrial Land Protection and Intensification Policies (2014)

Metro Vancouver Industrial Lands Website:

www.metrovancouver.org/services/regional-planning/industrial-lands

- Metro Vancouver 2010 Industrial Lands Inventory (2011)
- Metro Vancouver 2005 Industrial Lands Inventory (2006)
- Monitoring Industrial Land Supply, Utilization and Demand Report (2012)
- Metro Vancouver Industrial Lands Market Readiness Summary (2012)
- Metro Vancouver Best Practices for the Intensive Use of Industrial Land Discussion Paper (2012)
- Summary Report: Opportunities for the Intensive Use of Industrial Land (2013)
- Property Tax Scenario Analysis for Agricultural and Industrial Lands, Colliers (2014)
- Industrial Land Re-Development and Intensification – Constraints and Solutions, by Stantec / Site Economics Ltd (2013)
- Higher Density Multi-Level Industrial Building Feasibility Study for Metro Vancouver, by Site Economics Ltd (2013)
- Industrial Land Intensification Analysis, by Eric Vance & Associates (2011)

NAIOP Analysis of Metro Vancouver's Industrial Lands Publications:

https://images.bcoffice.com/NAIOP/2014/NAIOP_IndustrialLands_14.pdf

- Metro Vancouver's 2012 Market Readiness of Vacant Industrial Land Report (2013)
- Long Term Forecast and Analysis of Metro Vancouver's Industrial Lands (2014)

Port Metro Vancouver Statistics and Reports:

www.portmetrovancouver.com/about-us/statistics

- The Industrial Land Market and Trade Growth in Metro Vancouver, by Site Economics Ltd (2015)