

**METRO VANCOUVER REGIONAL
INDUSTRIAL LANDS STRATEGY
DRAFT**

HEMSON C o n s u l t i n g L t d.

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EXECUTIVE SUMMARY

The Metro Vancouver region is facing a critical shortage of industrial land. Across the region, Metro Vancouver's industrial lands serve as home to a wide range of employment activities that, in turn, play a crucial role in supporting the broader regional, provincial, and national economies. From providing services to other local businesses, offering a broad range of well paying jobs, to enabling trade between Canada and the rest of the world, industrial lands are a key component to accommodating Metro Vancouver's continued growth.

Years of steady population and economic growth in the region, ongoing conversion and non-industrial uses of industrial lands, and the constrained geography of the region, have precipitated the challenges now facing Metro Vancouver's industrial land supply. Demand for industrial land continues to increase. Land values have increased significantly over the past few years and vacancy rates are at record lows. As a result of all these factors, the limited supply of vacant industrial land across the region is anticipated to face a worsening shortage over the next 10 to 15 years. With continued pressure for growth, limited options for expansion and increasing competition between other land uses, these issues now threaten not only new opportunities for growth, but also existing economic and employment activities.

THE MAIN CHALLENGES

Through canvassing industrial stakeholders and users around the region, the four main challenges facing Metro Vancouver's industrial lands are identified as:

1. A Constrained Land Supply

Bounded by the ocean, mountain ranges and an international border, the Lower Mainland is geographically constrained with limited options to expand the land base. As the region's population and economy continue to grow, this results in increasing demand for and competition amongst various land uses including residential, commercial, recreational, agricultural and industrial. With a limited supply of vacant industrial land remaining, there are fewer opportunities to accommodate both new businesses and those businesses that are seeking to expand their operations, particularly for uses that require larger parcel sizes with the necessary access to services and transportation infrastructure.

2. Pressures on Industrial Lands

As other land uses also compete for the limited amount of land available in the region, industrial lands are facing increased speculation and other market pressures to convert industrial lands to non-industrial uses, such as commercial and residential.

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These other uses typically are higher value, often pricing-out industrial land uses when a mix of land uses are permitted in industrial areas.

In addition, there is an increasing trend toward permitting more accessory and non-industrial uses on lands intended for industrial activities. These employment uses, although important to the regional economy, may displace and create location challenges for more traditional industrial uses.

3. Site and Adjacency Issues

In some cases, the high cost of delivering servicing to undeveloped industrial areas has proven prohibitive. Similar issues related to environmental constraints, lack of transportation and public transit infrastructure and the encroachment of nearby sensitive uses have discouraged or prevented industrial development where it might otherwise be accommodated. Similarly, the encroachment of sensitive land uses often result in conflicts with industrial operations (i.e. truck traffic, noise, odors) which can prove disruptive to existing and prospective industrial uses.

4. A Complex Jurisdictional Environment

The issues facing Metro Vancouver's industrial land supply involve multiple stakeholders, including the public sector, crown corporations, private sector, industry associations, chambers of commerce and boards of trade. In some cases, these challenges are compounded by overlapping jurisdictions amongst government agencies, leading to a fractured regulatory landscape and competing mandates. Similarly, varying approaches to industrial land use (including permitted activities and intensities) may be in conflict with the aspirations of the region and neighbouring jurisdictions.

THE REGIONAL INDUSTRIAL LANDS STRATEGY

In response to the challenges facing industrial lands and industrial stakeholders in the region, the Metro Vancouver Regional District (Metro Vancouver) struck an Industrial Lands Strategy Task Force (the Task Force) comprised of appointed MVRD Board Directors and representatives from other stakeholder agencies and organizations. The Task Force's mandate is to develop a *Regional Industrial Lands Strategy* with a vision to ensure a sufficient supply of industrial land to meet the needs of a growing and changing regional economy to the year 2050.

The development of the *Regional Industrial Lands Strategy* is a collaborative process involving a range of stakeholders with an interest in the current and future role that industrial lands should play in the region. This includes understanding how current industry sectors in Metro Vancouver use land for different types of industrial activity, challenges facing the development and operation of industrial lands within the region,

and how the changing nature of work and industry could impact the future demand for land, along with associated transportation implications. Despite uncertain impacts on the future demand, all indications are that demand for industrial land will continue to grow.

The draft Regional Industrial Lands Strategy is the culmination of the research and consultation undertaken on behalf of the Task Force. The report presents a set of 35 policy recommendations and a framework for their implementation. Taken together, the recommendations provide a road map to achieve the vision of the *Regional Industrial Lands Strategy*.

THE BIG MOVES

The challenges facing Metro Vancouver's industrial lands are complex and interconnected, and no single action or stakeholder will resolve them. A complicating factor is the diverse make-up of the region and its industrial sub-markets. Land use policies that work well in one jurisdiction or area may not be effective in another. As such, recommendations for change must reflect the local context.

From the 35 recommendations, a short-list of 10 actions have been identified as priorities for implementation. For the purpose of coordination, these priority actions have been organized in terms of four 'big moves' based on their shared core objectives. This list reflects the immediacy of specific pressures facing the region's industrial land supply, along with stakeholder feedback gathered through the development of the strategy.

Protect Remaining Industrial Lands

Given the projected high demand for industrial land in the region, it is imperative to protect the region's remaining industrial lands and curb the threats that undermine their use for industrial activities.

1. Strengthen regional policy in the Regional Growth Strategy by increasing the minor amendment voting threshold for Industrial and other requirements. (Recommendation 2)
2. Strive for zoning consistency for industrial land by developing a consistent definition of industrial and guidelines for permitted uses. (Recommendation 3)
3. Recognize and protect trade-enabling lands in strategic locations through specific land use designations and increased direction for permitted uses. (Recommendations 4, 5 & 6)

Intensify and Optimize Industrial Lands

In the context of a constrained land base, it is important to remove barriers to the intensification of industrial land, and investigate opportunities to optimize the location of certain land uses over time.

4. Conduct a Regional Land Use Assessment. (Recommendation 1)
5. Encourage intensification of industrial uses in appropriate locations by removing unnecessary restrictions on increased development heights and densities and explore opportunities to incentivize such developments, as informed by regional guidelines. (Recommendation 8).

Bring the Existing Land Supply to Market & Address Site Issues

To ensure the region's remaining vacant supply gets to market, identify the local issues facing these lands and the linkages between them, and map out the necessary policy updates and strategic investments in response.

6. Develop 'bring-to-market' strategies for remaining areas of vacant land to proactively identify and address issues preventing sites from being developed. (Recommendations 17 and 32)
7. Coordinate strategies encouraging local economic growth, local business expansion, and attraction of investment across Metro Vancouver. (Recommendations 30 and 31)
8. Ensure transportation connectivity among the region's industrial areas by working together to proactively designate, manage and coordinate investment related to the region's goods movement network. (Recommendations 18, 19, 20 and 22)

Ensure a Coordinated Approach

Improved cooperation and data tracking among governments and other agencies and organizations is necessary to ensure effective land management and accurate monitoring into the future. Coordination also guides future alignment of policy responses to issues as they arise across Metro Vancouver and southern British Columbia.

9. Establish a broader framework for economic and land use planning collaboration between Metro Vancouver, neighbouring regions, and port facilities to support industrial land protection. (Recommendations 33, 34 and 35)
10. Develop and conduct a regional employment survey on a bi-annual basis to provide a better method of tracking changes in employment growth, land use, and built space over time. (Recommendation 28)

Taken together, these big moves will work to ensure Metro Vancouver's industrial lands continue to provide an attractive and viable location for businesses to locate, grow and prosper, all while supporting the broader regional economy and community.

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1. INTRODUCTION

Metro Vancouver is facing a shortage of industrial land. With strong demand for industrial space, many industrial businesses are finding it increasingly difficult to find suitable locations, while conversions to non-industrial uses further reduce the remaining supply of designated industrial land.

Industrial lands are crucial to supporting a prosperous, sustainable regional economy and to providing space to accommodate the industrial businesses and services needed across Metro Vancouver. These lands are home to over a quarter of the region's jobs, and are used mainly for transportation and warehousing, wholesale trade, retail trade, manufacturing, and professional and technical services. Many activities on industrial lands provide for the day-to-day needs of Metro Vancouver's population, providing locations for services like regional utilities, vehicle repair, hotel laundry services, catering companies, couriers, breweries, goods manufacturing, and design space.

Due to a constrained land base and strong demand for all types of land use, the regional supply of industrial land is under significant pressure for conversion to permit uses that can command higher market land values, such as retail, commercial and residential uses. In some parts of the region, flexible zoning permission have allowed non-industrial businesses to occupy industrial lands, competing for and at time displacing the industrial uses that cannot locate elsewhere. In others, the encroachment of sensitive uses, like residential, next to existing industrial operations are resulting in conflicts that threaten the continued operation of the original industrial use. These challenges, along with many others, are eroding opportunities for industrial businesses to operate and grow, which in turn threatens the economic diversity and vitality of the broader regional economy.

1.1 OBJECTIVES

Hemson Consulting Ltd. was retained in April of 2019 to assist Metro Vancouver in the development of the *Regional Industrial Lands Strategy* by:

- Interpreting and integrating the findings of work completed on behalf of the Task Force;
- Investigating innovative approaches to industrial land management seen in other regions;
- Adding to the research base, where necessary, with a focus on providing guidance on industrial land demand into the future, governance structures and partnerships, and land protection options;

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- Identifying options and recommendations to guide a broad range of stakeholder actions to achieve the objectives and vision of the Strategy; and
- Conducting additional consultation with regional stakeholders to gather feedback on and refine the aforementioned options and recommendations.

The draft Regional Industrial Lands Strategy is the culmination of this work, summarizing the findings of the research to set the context of challenges, issues and trends, describing the approach and principles to the proposed response, and presenting a set of recommendations and priority actions.

1.2 METRO VANCOUVER'S INDUSTRIAL LANDS STRATEGY TASK FORCE

In response to these challenges, Metro Vancouver struck an Industrial Lands Strategy Task Force (hereafter referred to as the 'Task Force') in March of 2018.

The mandate of the Task Force is to guide the development of a *Regional Industrial Lands Strategy*. It is intended to be a collaborative process involving a range of stakeholders with an interest in the present and future role that industrial lands play in the region. This includes understanding how current industry sectors in the region use land for different types of industrial activity, challenges facing the development and operation of industrial lands within the region, and how the changing nature of work and industry could impact the demand for land in the future.

The Task Force includes both voting members, comprised of appointed Metro Vancouver Board Directors, and non-voting members, comprised of representatives from agencies and organizations with an interest in, and knowledge of, about industrial lands. Non-including the Port of Vancouver, TransLink, Urban Development Institute, the BC Ministry of Jobs, Trade and Technology, BC Chamber of Commerce, Agricultural Land Commission, and representatives from the industrial development community. The Task Force is responsible for guiding the development of research and stakeholder consultation to support the development of a *Regional Industrial Lands Strategy*, before reporting back to the Metro Vancouver Board with the recommended Strategy.

1.3 REGIONAL INDUSTRIAL LANDS STRATEGY VISION

One of the first efforts of the Task Force was to confirm a vision for the Regional Industrial Lands Strategy. It is to:

Ensure sufficient industrial lands to meet the needs of a growing and evolving regional economy to the year 2050.

The vision statement speaks to both the timeframe for the strategy as well as acknowledging the challenges posed by the changing nature of work and potential impacts on the regional economy and land demand.

1.4 DEFINITION OF 'INDUSTRIAL' AND WHAT IS APPROPRIATE WHERE

If the objective of the strategy is to ensure sufficient industrial lands, the first step is better understanding what the strategy is seeking to protect lands for – how is 'industrial' defined. Across the region, municipal policies and bylaws vary in terms of what uses are permitted within industrial and employment zoning. For example, some municipal bylaws limit permitted uses to more traditional industrial activities, such as manufacturing, warehousing and distribution logistics, while others provide more flexibility to accommodate a range of uses, such as commercial, places of worship and indoor recreation. This flexibility of use can be beneficial towards realizing opportunities associated with the changing nature of industry and the emerging innovation economy, but also results the displacement of more traditional industrial activities, or contributes to the space and land supply challenge for industrial activities.

This is of particular concern in the context of the region's constrained land supply as it relates to the infiltration of industrial areas by non-industrial uses that could potentially locate elsewhere. The challenge is striking the right balance of narrowing permitted uses to protect the needs of region-serving and trade-enabling activities, while remaining sufficiently flexible to allow for innovation in appropriate locations across the region and ensure sufficient space for non-industrial, employment uses (such as concentrated in Urban Centres, which have better transit and amenities).¹

Towards this end, the Task Force, through consultation with regional stakeholders, developed a working definition for 'industrial' uses for the purpose of the Regional Industrial Lands Strategy².

¹ [Industrial Lands and the Innovation Economy, Metro Vancouver, June 2018](#)

² [Defining Industrial for the Regional Industrial Lands Strategy, Metro Vancouver, September 2018](#)

Industrial is defined as:

- Light and heavy industrial production (e.g. cement manufacturing, food and beverage manufacturing, furniture manufacturing, metalwork and fabrication, sawmills)
- Distribution (e.g. warehousing, industrial storage, freight trucking, intermodal couriers)
- Repair (e.g. autobody shops, truck and trailer repair, consumer goods repair)
- Construction materials and equipment (e.g. building supplies and specialty trade contractors, heavy equipment rental and leasing)
- Infrastructure (e.g. public utilities such as wastewater treatment facilities and pumping stations, works yards, rail/port terminals)
- Outdoor Storage activities (e.g. container storage)
- Wholesale (e.g. merchant and logistics wholesalers)

In addition to the more traditional industrial uses, the Strategy also recognizes other non-traditional industrial uses that may be compatible with industrial lands based on a number of criteria shown in Table 1 and 2.

Table 1: Criteria to Assist in Defining Industrial Use & Compatibility

Criteria	Description
Compatibility with adjacent uses	Whether a business is an emitter of noise, vibration, odour or visual nuisances that make occupying areas proximate to other land uses (e.g. residential, commercial institutional) challenging
Access (to site and goods movement network)	Whether the business requires access to particular infrastructure or modes of transportation such as water, rail, airport, and highway
Space requirements and scale of business	Whether the business requires large / unique site or building characteristics
Product produced	Whether the business manufactures, distributes or repairs a physical product
Trip generation	Whether the business generates or handles relatively large amounts of truck or client traffic
Client type	Whether the business is geared toward other business or the public
Ancillary / hybrid use	Percentage of the business that is office if a hybrid use (e.g. bio-tech)

Source: Defining Industrial for the Regional Industrial Lands Strategy, Metro Vancouver, September 2018

Through consultation with stakeholders, these criteria were used to categorize a spectrum of land uses into four land use categories that align with *Metro 2040's* land use designations. These include traditional industrial activities that are appropriate for lands

designated or zoned Industrial, flexible uses considered appropriate for lands designated or zoned Employment³, Non-Industrial uses that should not be permitted on Industrial lands, and Context Specific uses that could be appropriate for Industrial or Employment lands depending on the criteria listed in Table 1.⁴ The spectrum of uses by applicable land use category are summarized in Table 2.

Table 2: Applicable Uses by Land Use Category

Industrial	<ul style="list-style-type: none"> • Light and heavy industrial production • Distribution • Repair • Construction materials and equipment • Infrastructure • Outdoor storage • Wholesale
Employment	<ul style="list-style-type: none"> • Indoor Storage (e.g. self-storage) • Stand-alone office (e.g. law and financial offices) • Stand-alone recreation (e.g. karate studios, theatres, crossfit and climbing gyms, badminton/tennis facilities) • Retail / wholesale (e.g. big box, car dealerships, furniture, automotive parts) • High tech software development • Consulting services (e.g. engineering, architecture, environmental)
Non-Industrial	<ul style="list-style-type: none"> • Residential and supportive housing • Artist studios and live/work space • Agriculture (soil based growing) • Places of worship • Institutional uses (e.g. schools, day cares, hospitals)
Context Specific	<ul style="list-style-type: none"> • Restaurants (i.e. serving adjacent industrial activities versus being a draw for the public) • Retail (i.e. micro-breweries depends on scale and percent retail) • Services (i.e. commercial laundry, bakery, catering depends on scale) • Research and development (i.e. high-tech, bio-tech that require 'industrial' space) • Media production studios (i.e. movie, recording, television and radio)

Source: Defining Industrial for the Regional Industrial Lands Strategy, Metro Vancouver, September 2018

³ It should be noted that while these uses are more appropriate for Employment lands rather than Industrial, many of these uses are currently permitted in several Industrial zones in the region.

1.5 KEY FINDINGS

The research and interviews with stakeholders and subject matter experts resulted in the following key findings:

1. Industrial lands play a critical role in supporting both local employment and the broader regional and national economies;
2. A broad spectrum of employment activities take place on industrial lands, many of which are unlikely or unable to locate elsewhere within the region;
3. Industrial land uses have specific spatial and infrastructural needs that must be planned and protected to ensure their efficient operation and continued growth;
4. Many industrial businesses rely on dependable access to the goods movement network to ensure the timely movement of product to and from suppliers and their clients, along with transit services to link businesses with a broader range of the region's workforce;
5. While industrial areas can benefit from a mix of complimentary and secondary uses, many industrial uses struggle to compete when non-industrial uses are allowed to encroach upon and develop within industrial lands:
 - there is limited alignment on what constitutes an 'industrial' use and local zoning permissions have permitted distinctly non-industrial uses, to locate and occupy a significant amount of industrial land;
 - the encroachment of sensitive uses, such as residential, often creates conflicts with abutting industrial activities. Without sufficient buffering to separate these uses, or mitigation measures to limit conflict, encroachment may threaten the operation and growth outlook for existing industrial operations.
6. The market for industrial land and how it is used varies across the region, with differing land values, rents, and spatial characteristics in different sub-markets;
7. There are a number of ways in which industrial uses can make more efficient use of a limited land supply, including intensification of built form where local development restrictions, geotechnical / soil conditions, and market factors permit. However, not all market areas or industrial operations are well suited to multi-level industrial buildings.

8. Innovation and the changing nature of work in industrial areas requires a careful balance between protecting for certain uses and enabling flexibility to realize emerging economic opportunities:
 - the limited supply of available industrial land, coupled with speculation and competition amongst other land uses, is resulting in rising costs and fewer options for new and existing industrial businesses;
 - without careful management of the region’s remaining industrial land supply, there is a real risk that industrial activities may be displaced or may choose to (re)locate elsewhere outside of the Lower Mainland; and
 - mismanagement of the region’s industrial land supply has the potential to impact not only industrial employment and economic activity, but also the broader economic outlook for Metro Vancouver.
9. Given the diverse characteristics of Metro Vancouver’s industrial sub-markets and geographies, policy options that work well in one jurisdiction or area may not apply to another. As such, policy recommendations in the Regional Industrial Lands Strategy must not be implemented in a blanket manner but instead must recognize local context and applicability.

2. REGIONAL CONTEXT, ISSUES AND TRENDS

This section assesses the current state of industrial lands in Metro Vancouver and provides information on trends, issues, context and challenges for the recommendations that follow. Research was compiled through a comprehensive review of various market and academic sources, including a series of studies and white papers prepared for the Task Force. These studies include:

- Regional Industrial Lands Strategy – Issues and Initiatives Summary (June 2018);
- Industrial Lands and the Innovation Economy (June 2018);
- Defining Industrial for the Regional Industrial Lands Strategy (September 2018);
- Stratification of Industrial Land in Metro Vancouver (September 2018);
- Industrial Edges: Compatibility and Interface Issues in Metro Vancouver (September 2018);
- Agri-Industrial Activities in Metro Vancouver (February 2019);
- Regional Industrial Lands Strategy – Survey of Industrial Users (February 2019);
- Economic Value of Industrial Lands to the Metro Vancouver Region (February 2019); and
- The Changing Nature of Industry and Industrial Land Demand in Metro Vancouver (July 2019).

2.1 INDUSTRIAL LANDS IN METRO VANCOUVER

Industrial lands are the foundation for a significant component of the Metro Vancouver region’s total economic activity, representing a large amount of employment and economic activity.

- Comprising only 4% of the region’s land base, industrial lands are home to nearly 27% (364,000) of the region’s 1.3 million jobs, while also supporting an additional 163,000 jobs through indirect and induced impacts⁵.

⁵ Economic impact is assessed in three major components: direct, indirect and induced.

- Direct impact accounts for the activity of the sector itself.
- Indirect impacts are those that result because of the direct impacts, such as employment in downstream industries like parts suppliers and logistics companies meeting the need created a new manufacturing business.
- Induced impacts are those generated by expenditures by individuals employed directly or indirectly (often referred to as the “household spending effect”).

- Jobs located in industrial areas tend to be high paying, offering an average wage of \$61,100 per worker, which is roughly 10% higher than the regional average wage of \$55,000 per worker.
- In 2016, business activities on industrial lands generated \$27 billion in direct Gross Domestic Product (GDP), equating to 30% of the region's total GDP. These activities also accounted for an additional \$30 billion in indirect and induced GDP, of which \$16 billion is within the region, \$5 billion is accrued elsewhere in the province, and \$9 billion accrues elsewhere in Canada.⁶

The Metro Vancouver industrial market continues to experience very strong demand for space and a limited supply of land. As described by one brokerage firm, “with record-low vacancy, escalating rental rates, an expensive and constrained industrial land supply and an insufficient volume of new development” there is a “ravenous appetite for industrial real estate among tenants, owner-occupiers, developers as well as private and institutional investors”.⁷

The demand is based on a growing regional population and economy, Metro Vancouver's role as a transportation gateway for the nation, and evolving and emerging forms of industrial. Notable drivers of demand are: e-commerce, logistics and distribution, light manufacturing, food processing, advanced technologies, and creative and media production sectors, many of which desire urban locations to be close to customers and workforce.

On the supply side, the quantity of available land is essentially fixed, and the amount of new industrial building floor area being built cannot keep up with absorption. Metro Vancouver has approximately 11,300 ha (28,000 acres) of industrial land, about 80% of which is already developed.⁸ Within this supply, local brokerages estimate there to be 210 million square feet of industrial building space.⁹

- Because the development of new space has not kept pace with demand, the industrial vacancy rate of 1.4% is a record low for the region, and counts amongst the lowest in North America's major markets.
- Competition for space is resulting in increasing rental rates across the region, ranging from \$10.50 per square foot in Surrey and Delta to \$14.50 per square foot in Vancouver and North Vancouver.

⁶ [Economic Value of Industrial Lands to the Metro Vancouver Region, Metro Vancouver, February 2019, Section 4](#)

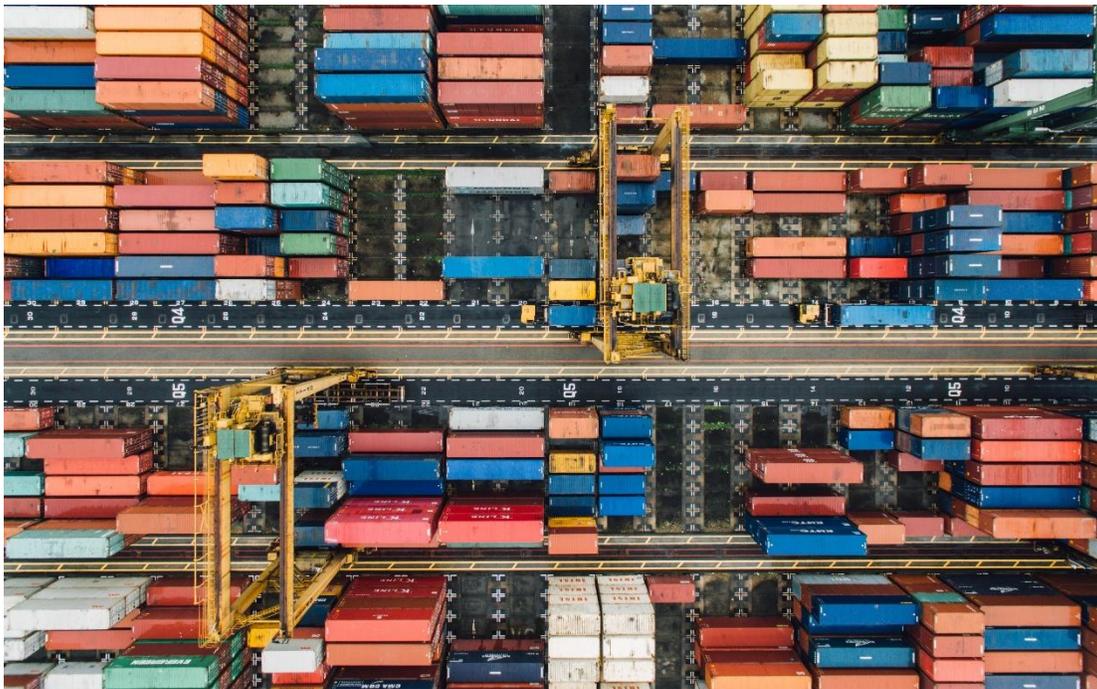
⁷ Avison Young, Spring 2019 Industrial Overview

⁸ Metro Vancouver 2015, Industrial Lands Inventory, Summary Report.

⁹ Colliers, Greater Vancouver Area, Industrial Report, Q3 2019

- Values for vacant industrial land are also up significantly in recent years, past the \$2 million per acre mark in many areas, and much higher in the City of Vancouver.
- Purchase prices for strata industrial space have followed similar trends ranging from \$300 to \$500 per square foot depending on the sub-market, with Vancouver representing the higher end.
- Despite the development of new supply being at an all time high, with some 6 million square feet of building space under construction, absorption levels have yet to abate, indicating demand is outpacing the market's ability to provide space.

Within this market, industrial tenants are facing limited space options to accommodate their new and expanding businesses, while also experiencing increased pressure from rising market rents, maintenance costs and property taxes. Existing tenants are faced with either renewing their lease at notably higher rates, or relocating further away from the region's core markets, driven – or indeed, pushed – by availability and costs rather than location preferences.



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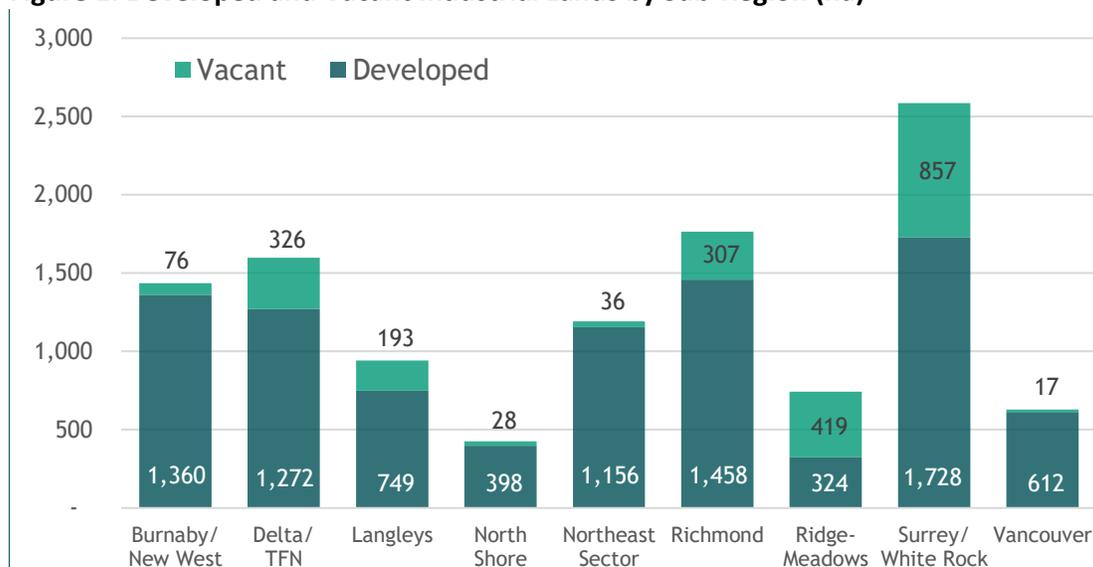
Industrial Lands Strategy Task Force

2.1.1 Industrial Land Supply

Metro Vancouver’s most recent Industrial Lands Inventory was conducted in 2015. With the next Regional Industrial Lands Inventory to be undertaken in 2020, the 2015 Inventory is somewhat out of date, but still serves as a starting point for contextualizing many of the issues and dynamics facing the region’s industrial lands.

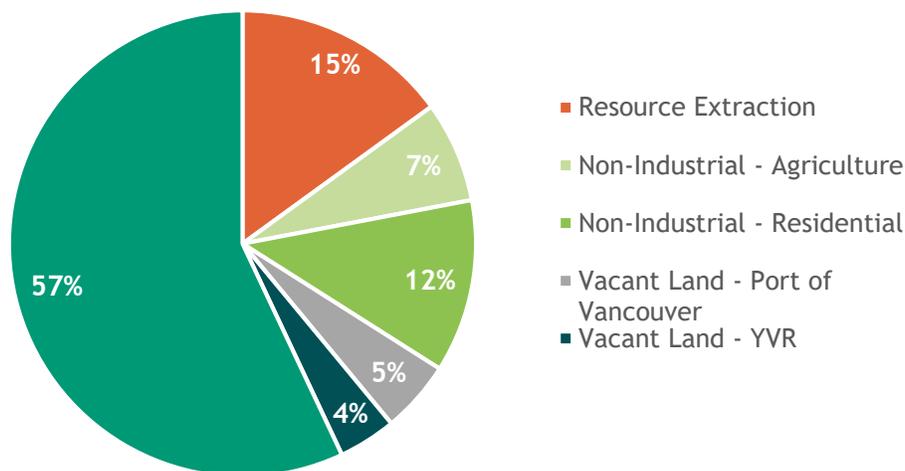
As of 2015, 11,331 ha (28,000 acres) of industrial lands were identified across the region. Of this total, 8,560 ha (75%) were developed, zoned and designated under an Official Community Plan (OCP) for industrial uses. An additional 511 ha (5%) had been developed and zoned for industrial uses, but was designated for non-industrial uses in the local OCP, indicating these lands are likely to transition away from industrial use over time. The remaining 2,261 ha (20%) were considered vacant or underdeveloped, the bulk of which are located in the south and eastern areas of the region, specifically Surrey (38%), Maple Ridge / Pitt Meadows (18%), Delta / Tsawwassen First Nation (14%), and Richmond (14%).

Figure 1: Developed and Vacant Industrial Lands by Sub-Region (ha)



Source: Metro Vancouver 2015, Industrial Lands Inventory, Summary Report.

It is important to note that the lands identified as vacant include a mix of lands that are totally vacant, along with a number of other non-industrial uses that have the potential to redevelop to industrial uses over time. As shown in Figure 2, only 66% of these lands were considered functionally vacant, with the Port of Vancouver and YVR holding a combined 9% for future operations. The remaining 34% are shared between active resource extraction, agricultural and low-density residential uses, which may take some time to become available for future industrial development.

Figure 2: Vacant Land Distribution by Type of Current Use

Source: Metro Vancouver 2015, Industrial Lands Inventory, Summary Report.

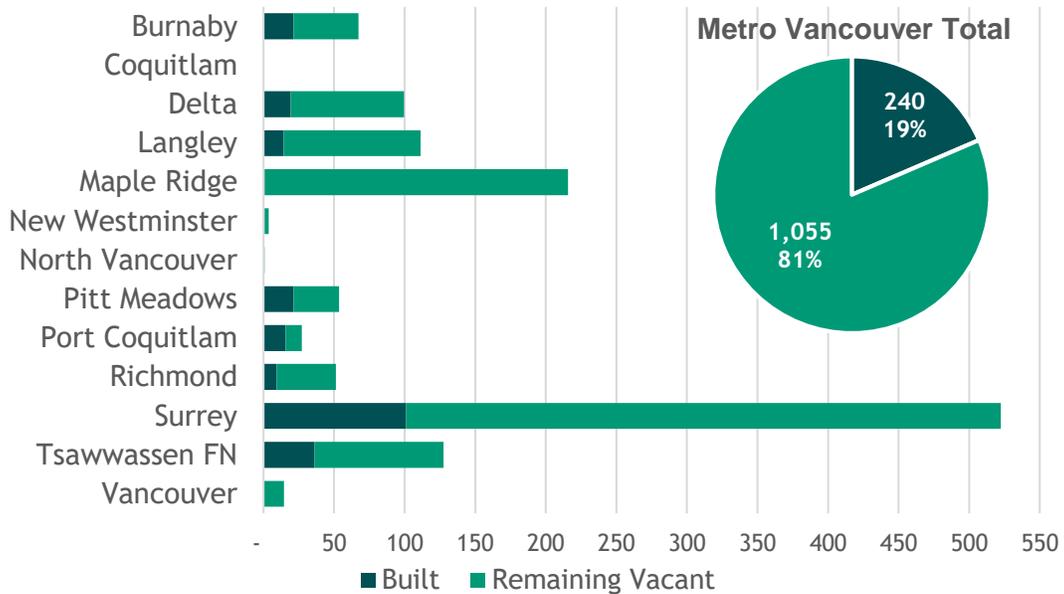
In the five year period leading up to the 2015 Industrial Lands Inventory, the total amount of developed land increased by 163 ha (2%), while the inventory of vacant lands decreased by 513 ha (19%), representing a net decline of 350 ha (3%) from the total industrial lands inventory. The removal of lands from the inventory occurred due to a number of reasons, with municipal policy changes (OCP re-designations or rezoning and developing lands for non-industrial uses) being the main reason for the net decline.

Between 2010 and 2015, excepting the removal of lands from the inventory, Metro Vancouver's industrial lands experienced a net absorption¹⁰ of 380 ha, or 76 ha per year on average. This was a decline from the average absorption of 93 ha per year for the 2005 to 2010 period. The slowed absorption rate was likely the result of a number of factors, including the lingering effects of the 2008-2009 Global Recession and the declining number of large sites available in the industrial inventory.

Since 2015, satellite imaging indicates that a significant number of the region's large vacant parcels have been developed in Richmond, Tsawwassen First Nation and Surrey's Campbell Heights. As shown in Figure 3, it is estimated that at least 240 ha (19%) of the 1,295 ha that were previously identified as functionally vacant (and not under Port or YVR ownership) have been absorbed and developed between 2015 and 2019. It is anticipated the vacant land inventory will be significantly reduced by the time of the next iteration of the Regional Industrial Lands Inventory in 2020.

¹⁰ Net absorption is a factor of the gross lands that went from vacant to developed status minus the gross lands that went from develop to vacant over the same period.

Figure 3: Estimated Vacant Land Supply Change in Hectares (2015 – 2019)



Source: Hemson Consulting Ltd. using data from Metro Vancouver and images from Google Earth.

2.1.2 Employment and Economic Activity

Of the 364,100 jobs located on the region’s industrial lands, 200,400 (55%) are associated with industrial activities, involving production, distribution, repair, public infrastructure, and trade-enabling uses (employment activity located on lands associated with the Port of Vancouver and YVR Airport). Industrial land activities are significant contributors to the local economy, contributing proportionally more GDP per job than the regional average. These jobs generated an estimated \$17.3 billion in direct GDP in 2016, more than 93% of which associated with non-trade-enabling sectors.

Non-industrial activities, that is those jobs in sectors related to media, film and art production, research and development in professional and technical services, retail, and other services, also play a significant role on the region’s industrial lands. These sectors account for 163,700 direct jobs and approximately \$9.5 billion in direct GDP, though their impact is proportionally lower on a per jobs basis than the industrial sectors. This is primarily on account of the higher economic multipliers (linkages and spending with other sectors) and higher average wages associated with activity in the industrial sectors.

Table 3: Economic Impacts of Employment Located on Industrial Lands, by Sector, 2016

Economic Impact		Impacts in:	Region	British Columbia	Canada
Employment (Jobs)	Industrial Sectors	Direct	200,400	200,400	200,400
		Indirect	59,200	78,100	111,400
		Induced	48,000	62,900	87,900
		Total	307,600	341,400	399,600
	Non-Industrial Sectors	Direct	163,700	163,700	163,700
		Indirect	28,900	36,000	50,400
		Induced	28,900	33,600	45,800
		Total	219,400	233,200	259,900
	All Sectors	Total	527,100	574,600	659,500
	GDP (\$ Billions)	Industrial Sectors	Direct	\$17.3	\$17.3
Indirect			\$5.5	\$7.3	\$11.2
Induced			\$5.2	\$6.8	\$9.5
Total			\$28.0	\$31.4	\$38.0
Non-Industrial Sectors		Direct	\$9.5	\$9.5	\$9.5
		Indirect	\$2.5	\$3.2	\$4.6
		Induced	\$2.9	\$3.6	\$4.9
		Total	\$15.0	\$16.3	\$19.1
All Sectors		Total	\$43.0	\$47.7	\$57.1

Source: Statistics Canada Census 2016, Metro Vancouver and *InterVISTAS* analysis and calculations.

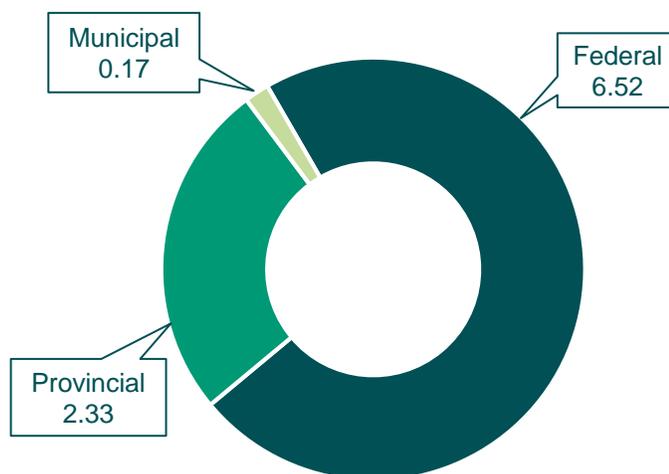
Note: Data are rounded and may not sum. Prices are 2016 dollars.

2.1.3 Tax Impacts

Metro Vancouver's industrial lands are estimated to generate \$6.5 billion in tax revenues and fees for the Federal government and \$2.3 billion for the Provincial government. Industrial sector jobs make a greater contribution to Federal and Provincial revenues when compared to non-industrial sector jobs located in the industrial areas, primarily on account of their higher average wages for industrial related jobs. Municipal property taxes generated by industrial property classes totalled \$0.17 billion in 2016, though not all these building may have been located within the industrial areas.¹¹

¹¹ [Economic Value of Industrial Lands to the Metro Vancouver Region, Metro Vancouver, February 2019, Section 4.8.](#)

Figure 4: Estimated Federal, Provincial and Municipal Tax Revenues Generated by Industrial Lands (\$ billions)



Source: InterVISTAS' Tax Model and calculations, and analysis of British Columbia Government Tax Burden Schedule 707 2016 Assessments, Tax Rates, Municipal Taxes and Class Proportions of Taxes and Assessments.

2.1.4 Industrial Land and Space Market Trends

As shown in Figure 5, industrial land values and lease rates across Metro Vancouver have increased significantly between 2014 and 2019. These changes reflect the scarcity of large, vacant, developable industrial land parcels, speculation that densities will increase on industrial lands, increased competition from other uses, or outright conversion to non-industrial uses.

Figure 5: Metro Vancouver Industrial Land Values and Lease Rates, 2014, 2017, 2019

	Late 2014	Late 2017	Early 2019
Average Vacant Industrial Land Value (\$million/acre)	\$1.1 million to \$1.6 million	\$1.9 million to \$3.0 million	\$2.0 million to \$4.0 million
Average Rental Rate for Industrial Space (\$/net square foot per year)	\$8	\$10	\$12

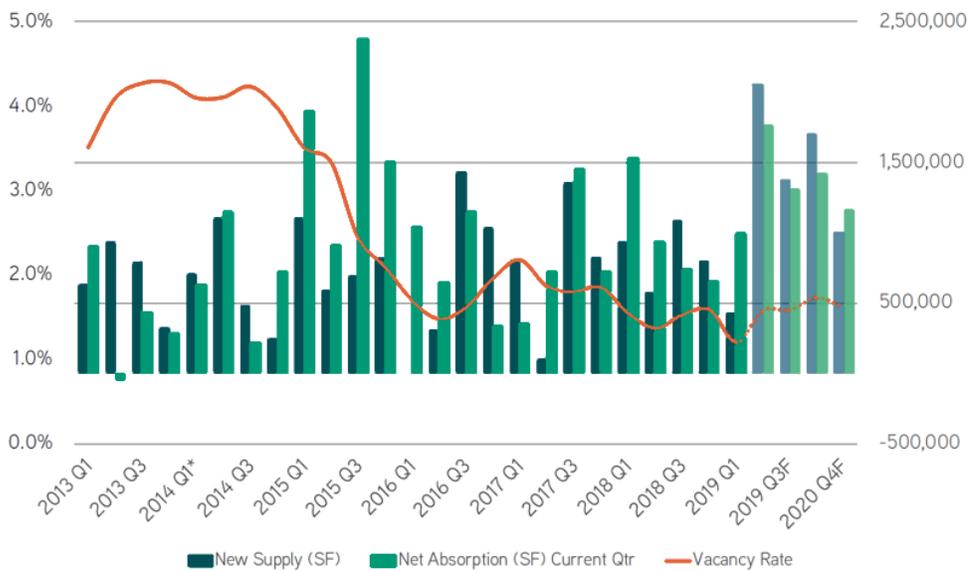
Source: Adapted from The Changing Nature of Industry and Industrial Demand in Metro Vancouver: Discussion Paper, Section 4.7, 2019

Note: Figures represent average values for the region as compiled by major brokerages. Industrial transactions in specific sub-markets may be greater or less than range shown.

These land price and lease rate increases are the result of changing dynamics between the supply and demand of industrial land and space availability. In the case of Metro Vancouver, demand and competition for these lands has been steadily increasing, while the supply of available industrial land has declined. As shown in

Figure 6, demand for industrial space has far outpaced how quickly developers have been able to bring new buildings to the market, resulting in a regional vacancy rate that has averaged below 2% for the past 4 years.

Figure 6: Metro Vancouver Industrial Market Absorption Trends and Forecast, 2013-2020



Source: Colliers International, Metro Vancouver Industrial Market: Q1 2019

The industrial market has remained extremely tight over this period, with the lack of supply and strong demand putting upward pressure on lease rates and land values.

2.2 CHALLENGES FACING THE REGION’S INDUSTRIAL LANDS

With regional population and employment growth, and a constrained land base, the region faces a number of challenges related to the protection, management and promotion of industrial and employment lands. Based on engagement with the Task Force and a range of regional stakeholders, these challenges have been categorized into four themes:

- A Constrained Land Supply
- Pressure on Industrial Lands
- Site and Adjacency Issues
- A Complex Jurisdictional Environment

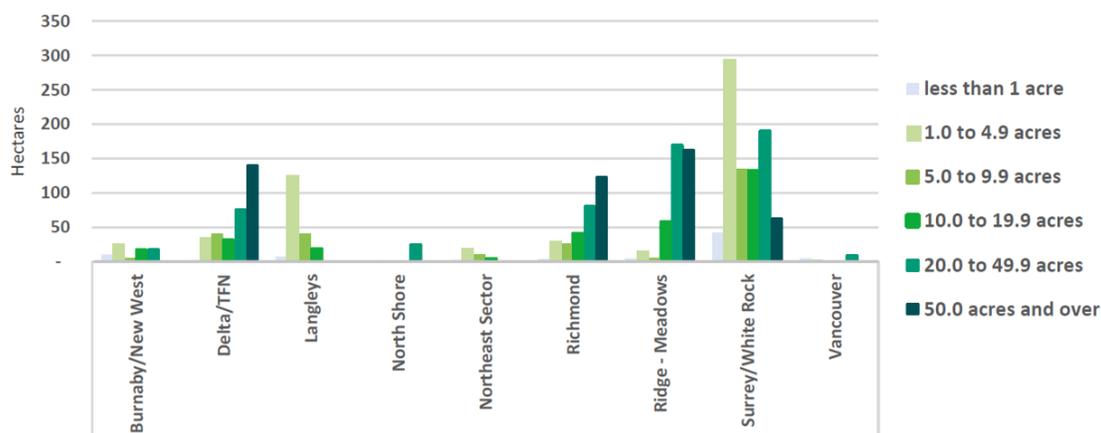
The challenges within each theme are complex and interconnected, and addressing them will require creative responses and collaboration among all stakeholders in the region.

2.2.1 A Constrained Land Supply

The challenges facing Metro Vancouver and its industrial land supply are somewhat unique, at least in the North American context. Unlike most other North American markets, where continued demand can often be accommodated via development and growth into outer areas, Metro Vancouver is bounded both physically and politically between mountains, an ocean and an international border. While there is some potential for industrial development in the neighbouring Fraser Valley Regional District to the east, it too has a limited supply of vacant industrial land available, leaving the land supply within the Lower Mainland predominantly capped.

Between the limited supply of vacant industrial lands and high demand for new space, there is a scarcity of employment lands in general. This is of particular concern as it relates to larger parcel sizes (20+ acres), that are typically required for major industrial and logistical uses. This problem is further exacerbated by the fragmented nature of much of the region's remaining vacant land parcels, which result in lands that are suitable for some industrial activities, but insufficient for large-scale development. The vacant industrial land supply by parcel size and sub-region is provided in Figure 7.

Figure 7: Vacant Lands by Site Size and Sub-Region, Metro Vancouver, 2015



Source: Metro Vancouver 2015 Industrial Lands Inventory: Technical Report

With limited options through traditional expansion-based methods, Metro Vancouver will need to embrace creative options for increasing both the supply and capacity of its industrial lands. These alternative approaches are not without their own challenges, as discussed in the examples below:

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METRO VANCOUVER REGIONAL INDUSTRIAL LANDS STRATEGY: DRAFT

Industrial Lands Strategy Task Force

A. Can We Create New Land?

In the past, it was common to expand industrial and port areas into shorelines by using fill. However, the environmental and economic costs and necessary approvals and mitigation measures can be prohibitive, resulting in the practice being used much more sparingly in recent years. The Port of Vancouver is currently undertaking a comprehensive study to expand the Roberts Bank container terminal using this approach; though beyond this project there are few prospects for this approach to be applied elsewhere in the region.



B. Increasing Industrial Capacity through Multi-Storey Intensification

With limited options to increase the land base, many industrial projects are now considering building upwards; modern warehouse distribution centres are developed to be significantly more volumetrically intensive than traditional warehousing operations. Multi-storey industrial buildings are somewhat rare in North American markets due to the high capital costs associated with constructing space that meets the needs of modern industrial businesses, which in turn requires a much higher rent in order to ensure a sufficient return on investment for developers. This also includes the need for sufficient truck access to enable the movement of goods, requiring ramps, freight elevators and loading bays, making site design more complex.

Traditionally, this meant that only smaller users were likely to occupy multi-storey industrial space, specifically those that needed to be located in proximity to the urban core, and were flexible in their space needs. However, as market pressures have increased, interest in multi-storey industrial projects is beginning to grow more broadly, with a number of multi-storey projects having been constructed in Metro Vancouver and similar North American markets in recent years. Some of these projects have involved a mix of uses and tenures, most commonly strata industrial with office uses over industrial

HEMSON

space. The completion of the Georgetown Crossing development in Seattle shows the potential for large scale stacked industrial distribution and logistics buildings that could potentially be replicated in Metro Vancouver.¹²

Allowing for, and potentially incentivizing, the creation of multi-storey industrial space has the potential to modestly increase the supply of industrial space within the region, so long as the market conditions are sufficient to support it. It is important to recognize that such an option will be contextual within the region, as factors such as local rents, site size, industry activity, and geotechnical conditions will determine where such projects are feasible.



C. Other Forms of Industrial Intensification

In addition to increasing the amount of built space, there are a number of other ways to measure industrial intensity or density on the existing land base. These methods may not be as directly tied to land use policy, but can still accommodate increased employment and economic activity.

Examples include:

- Labour activity (employees per land acre/hectare or per building sq. ft./m2)
- Business revenue per unit (value generated per unit of land, or building floor area)
- Volume of goods produced/processed/stored per unit (per floor space, land area, employee)
- Vehicle or equipment movement per hour (trucks, loading, crane lifts)
- Quality and pay of jobs (education and pay levels)

¹² [Is It Time To Go Vertical In Vancouver, Colliers International Market Intelligence Report](#)

- Value or level of equipment/technology investment (e.g. automation, racking warehouses)
- Transportation infrastructure utilization rates (goods/trips per unit)
- Building lease absorption period, vacancy rates, rental rates
- Longer hours of operation (shift work)

Industrial uses are not the only ones constrained by the region's limited amount of available land, as the region's commercial, office, retail and other employment sectors also compete for space. While some of these uses are compatible with industrial activities, the market economics of these other uses may potentially undermine existing and potential industrial activity. These other employment uses typically tend to offer a higher return on investment and higher rents on a per square foot basis, often pricing-out industrial land uses for floor space. Similarly, the rising popularity of industrial stratification poses a potential disruptor to other large scale industrial and trade-oriented activities, as the latter may not be able to compete with other industrial users for the remaining industrial land base.

D. Stratification of Industrial Land

Another way in which Metro Vancouver is unique in the North American context is the popularity of owner-operated strata industrial space.¹³ Whereas most commercial and industrial users in North American markets tend to operate in leased space, the limited land supply and rising prices in the Metro Vancouver market, coupled with sustained periods of low interest rates, have resulted in significant demand for owner-occupied strata units.

The benefit of strata-ownership is that it allows smaller industrial users to have security of tenure over their space, providing stability while also enabling the owner-occupier to capture the market capital appreciation. The upfront nature (i.e. pre-sales) and high sales prices for strata property sales also enable developers to de-risk the development of more capital-intensive built forms, including multi-storey industrial projects, and can prove beneficial for users seeking space in denser inner-city locations.

However, stratified space is not conducive to all industrial users. The high cost may be prohibitive to smaller businesses and may limit the flexibility of firms looking to expand. The subdivision of individual units within buildings may also prove problematic for larger firms seeking large, cohesive spaces. This also poses a potential long-term issue for the

¹³ Similar to condominium residential housing, commercial strata is a form of tenure, distinct from ownership and rental or lease with a tenant-landlord relationship, in which a building or land is separated into separate lots or units that are separately owned. The strata lot owners hold collective ownership of the common areas of the property through a strata corporation.

redevelopment of existing space, requiring the consolidation of fragmented ownership within buildings. With stratified industrial space able to offer significantly more return for land developers, speculation for strata may also price-out larger traditional and trade-oriented industrial users from being able to acquire optimally located properties.¹⁴

E. The Struggle for Space – Non-Industrial Uses on Industrial Lands

Industrial areas can benefit from the presence of a number of complimentary non-industrial uses, including restaurants and amenities to serve local workers, and ancillary retail and office components that are related to the main industrial use. However, these and many other non-industrial uses can also compete for space in the industrial area. Many non-industrial uses are able to locate in other parts of the urban land supply, but given the comparatively lower cost of land and space, may prefer to locate in industrial areas if permitted to do so. This can prove problematic, as these non-industrial uses are often able to outbid the intended industrial users, effectively driving up land and rent prices challenging industrial businesses to locate in these areas.

F. The Struggle for Space – Trade-Enabling Uses

Industrial businesses cover a range of activities, locational preferences and site needs. For example, a manufacturer of specialized computer components may require a far different type of space than that of a distribution and logistics warehouse operation. Much like the competition between industrial and non-industrial space users, industrial uses with different operational needs may also be able to support different values for land and space.

This disparity is of particular note when it comes to trade-enabling uses, such as the logistics, warehousing and distribution of goods. These uses tend to require specific locations with good access to port, rail or highway infrastructure, often in the form of large warehouses with ample space for the loading and unloading of trucks. However, smaller specialized industrial users can also compete for these types of sites, and may be a more financially viable development form on high value lands, particularly if developing multi-storey and/or stratified sites. This can prove a challenge given the limited number of large sites in the region that feature the characteristics needed by trade-enabling businesses.

¹⁴ [Stratification of Industrial Land in Metro Vancouver, Metro Vancouver, September 2018](#)

G. Mixing Residential to Encourage Light Industrial Redevelopment in Key Areas

With increasing competition for land and an overlap in regional and local land use policy objectives, some proponents are advocating for changes to zoning permissions to allow for the development of mixed-residential uses in existing industrial areas, specifically for those in close proximity to rapid transit station areas. Advocates of this kind of zoning suggest that it will encourage the redevelopment of industrial space to modern standards while also addressing non-industrial policy objectives such as providing affordable housing and transit-oriented development. By mixing in higher-value residential uses, there is also the potential to subsidize the redevelopment of new industrial space in an expensive urban context.

Given the conflicts that can occur between industrial and residential activities, the successful integration of these two uses is quite challenging. Generally speaking, only certain light industrial activities are compatible with sensitive residential uses in such close proximity, and even then, site design that ensures both livability and functionality for both uses can be difficult and expensive. Even with strict covenants on what uses are permitted, allowing higher value uses like residential also creates the risk of encouraging speculation on neighbouring industrial properties, and could result in the loss or displacement of the intended industrial use over time.

H. Accommodating Innovation and the Changing Nature of Work

When seeking to protect industrial lands for industrial uses, it is important to recognize that that industrial activity can cover a broad range of businesses and involve the production of a various types of goods. Not all industrial businesses produce goods one might otherwise associate with traditional industrial activities, such as concrete, construction goods or chemicals. As new technologies have emerged in recent decades, Metro Vancouver has benefited from the growth of numerous high-skill tech and innovation clusters. While these jobs are commonly associated with office-related employment, they also spur demand for space to accommodate the production of goods related to bio-tech, green tech, and other innovative products.

Demand for these types of spaces tends to focus on certain industrial sub-markets, most commonly found in proximity to post secondary institutions, which in turn provide linkages to emerging high-skilled labour opportunities. These businesses often seek well-located and well-equipped facilities, which means they are often able to locate in more expensive and urban industrial areas, such as Vancouver and Central Surrey.

2.2.2 Pressure on Industrial Lands

Not only are the region's industrial lands in short supply, they are also under threat of being further diminished due to a number of factors, including being converted to non-industrial uses and being out-priced due to high land values and property taxation. At the same time, industrial uses seeking other locations to suit their needs are putting pressure on the region's agricultural land.

Competition and encroachment from non-employment uses are putting considerable pressure on industrial lands. The encroachment of these sensitive land uses often result in conflicts with industrial operations (i.e. truck traffic, noise, odors) which can prove disruptive to existing and prospective industrial uses. Mixing non-industrial uses in industrial areas or converting the lands entirely, runs the risk of encouraging speculation, which in turn may drive up land values and prevent industrial growth or displace existing industrial users.

A. Industrial Edges and Buffers – Tools for Mitigating Conflict

Industrial land edges and buffers are a common means to mitigate conflict between industrial and adjacent sensitive uses, such as residential. Establishing these measures helps to ensure, for example, that residents are not negatively impacted by industrial activities, while also providing industrial users with a degree of certainty that they will be able to conduct their business without disruption.

There is no single approach between Metro Vancouver's member jurisdictions in how to manage the interface between industrial and sensitive uses, though there are some common elements. These include design guidelines to manage noise, odour and light, and minimum setbacks to ensure a reasonable degree of physical separation from other uses. Most commonly these are established in a municipality's Official Community Plan (OCP) or zoning bylaw, requiring on-site mitigation measures at time of site plan, but may also include more broad buffers, including transitional land uses (such as light industry or office parks) or other physical separation be located in between industrial and sensitive uses.

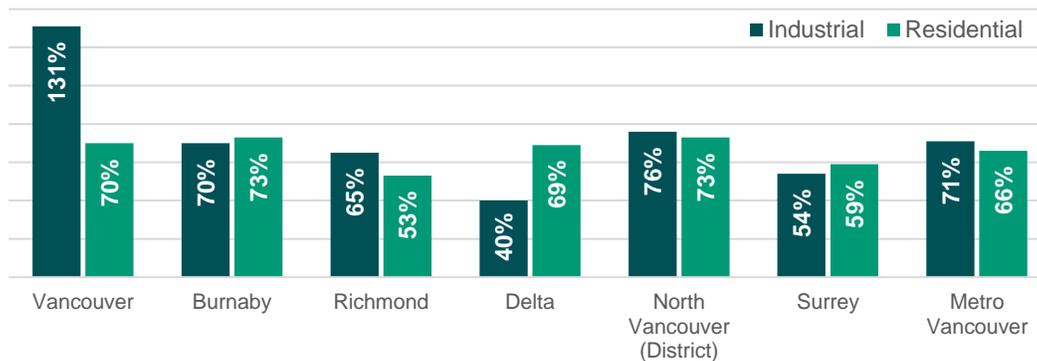
Depending on the approach and standard required, these measures can restrict the development of some industrial uses, or may require site plan elements that add additional cost to the design.¹⁵

¹⁵ [Industrial Edges: Compatibility and Interface Issues in Metro Vancouver, Metro Vancouver, September 2018](#)

B. Rising Land Values and the Impact of Taxation

As industrial areas continue to experience rising land values, this not only increases rental rates, but also taxation. Property tax in British Columbia is assessed on market land value, not just as it is today, but as the ‘highest and best’ use of the land. As industrial areas begin to permit a broader mix of densities and uses, this means that the assessed value of the land can rise sharply, in some cases well beyond the value being generated by the existing industrial users. For example, a small automotive repair business in an area that permits multi-storey office uses would be assessed as if it were a multi-storey office. In a five-year period between 2012 and 2017, the rate of industrial assessment growth outpaced residential assessment growth in the region, with the greatest impacts being observed in more urban municipalities.

Figure 8: Assessment Value Increase, By Municipality, 2012-2017



Source: Adapted from Andy Yan, City Program, SFU, using data from BC Assessment, 2019.

This has the potential to put pressure on both land owners and leaseholders, as many leases in Metro Vancouver are “triple net”, meaning that the leaseholder is responsible for paying rent, along with building maintenance and property tax. As land prices and the associated assessment values rise across the region, so can the tax payment – leading to an increase in costs that many businesses, particularly smaller ones, may not be able to absorb. These rising tax rates can put considerable pressure for businesses to relocate elsewhere in the region, or shut down entirely. As a result, this also creates pressure to convert industrial land to non-industrial use.

C. Competition between Industrial and Agricultural Land Uses

In much the same fashion of how speculation for other land uses is driving up real estate prices on industrial lands, so too is speculation impacting lands designated for agricultural uses across the region. While most of these lands are subject to provincial regulation as part of the Agricultural Land Reserve (ALR), which prevents non-agricultural uses, speculation from various land uses is raising land prices, undermining the feasibility of using these lands for their intended agricultural use and driving pressure for conversion.

While both industrial and agricultural land bases are under pressure to convert from other land uses, there is also pressure between the two. Industrial and agricultural land uses are often posited against one another, with agricultural interests advocating that agri-industrial¹⁶ uses be located on industrial lands, and industrial interests advocating agri-industrial uses be allowed on agricultural lands.

Currently, ALR regulations limit industrial and commercial uses from locating on industrial land, requiring that 50% of the product involved in these activities be grown/raised on site. This “50/50 rule” plays a critical role in determining what agri-industrial activities are permitted on ALR land, barring approval from the Agricultural Lands Commission (ALC). Limits to infrastructure, servicing and transportation in both Metro 2040 and ALR regulations also direct many agri-industrial uses to industrial areas instead. Given the comparatively high cost of industrial land, agri-industrial activities that qualify as farm use (or successfully apply to the ALC for an exception) will usually locate on agricultural land instead.¹⁷

In a general sense, agri-industrial uses are not a significant component or threat to either land base. However, given the limited land supply and similarities between site profiles (large, flat sites) there is some pressure to convert agricultural lands to more traditional industrial uses, particularly in the case of sites that are considered underperforming or poorly located for their designated use. In a limited number of cases, such as the recently approved land swap between the City of Delta and the MK Delta Lands Group¹⁸, such a conversion may be considered reasonable.

D. Climate Change Vulnerability

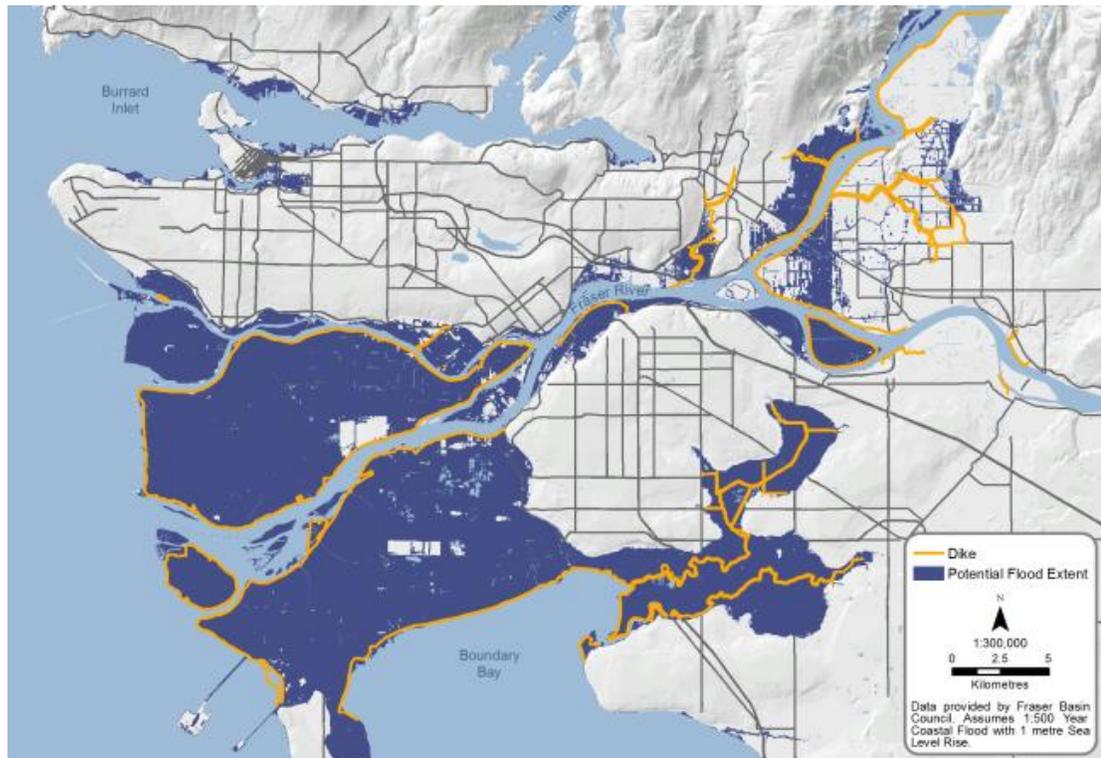
Another issue of note impacting the long-term functionality of the industrial land supply is the risk posed by climate change. Detailed climate change projections have been completed for the Metro Vancouver region, and significant work is underway to understand the impacts, including increased flood risk.

¹⁶ Agri-industrial uses are defined as: all commercial or industrial activities included in primary production from local agriculture, as well as the upstream and downstream activities related to the agrifood and seafood sector excluding retail and other consumption activities.

¹⁷ [Agri-Industrial Activities in Metro Vancouver, Metro Vancouver, February 2018](#)

¹⁸ [Metro Vancouver Regional Planning Committee Regular Meeting - April 5, 2019, Report 5.1](#)

Figure 9: Potential Coastal Flood Extent Map (with 1 metre sea level rise)



Source: Metro Vancouver, using data provided by Fraser Basin Council¹⁹

A significant portion of the region's industrial land supply, including most major port and airport facilities, are located within low lying areas. Assuming only one metre of sea level rise, many of these areas would be vulnerable to major coastal flood events in the absence of considerable adaptation measures. Should sea level rise continue as projected, significant portions of the industrial land supply may no longer be considered viable for long-term development, further reducing opportunities for growth and economic resiliency. While certain measures can be engineered to adapt to this risk, including diking and improved site design, these measures may be cost prohibitive for many industrial users to implement.

In addition to responding to the impacts of a changing climate, industrial activities also have a role to play with regards reducing regional Greenhouse Gas (GHG) emissions. Metro Vancouver is currently developing its Climate 2050 strategy, which reflects climate issues specific to the region by addressing ten key issue areas, one of which is industrial

¹⁹ Flood extent data was provided by the Fraser Basin Council as part of the Lower Mainland Flood Management Strategy. The scenario assumes a 1:500 Annual Exceedance Probability Stillwater ocean state and a 0.6 metre wave allowance with 1 metre of sea level rise. More information on the Lower Mainland Flood Management Strategy can be found at https://www.fraserbasin.bc.ca/water_flood.htm

activities. Metro Vancouver’s manufacturing sector (including cement production, food processing, metal fabrication, chemical manufacturing, forest products, and petroleum refining) and construction industry contribute approximately 23% of the region’s total GHG emissions combined. As part of developing Climate 2050, the region is preparing “roadmaps” for each issue area, providing a summary analysis of current conditions and challenges facing each issue area. These roadmaps will identify regional and corporate goals and actions necessary to achieve a low carbon, resilient region. In the case of industrial activities, this is likely to include targeted approaches to reduce emissions by encouraging or requiring switching to low carbon fuels and adopting new technologies where appropriate.²⁰



2.2.3 Site and Adjacency Issues

In addition to the macro-level challenges facing industrial lands, various site-specific issues are creating barriers to the effective development and redevelopment of the region’s industrial lands:

- In the case of un-serviced industrial lands, the high cost of delivering necessary servicing and infrastructure may be preventing the establishment of new industrial activity;
- A number of industrial areas feature limited access to the Regional Truck Route Network and other infrastructure intended for the movement of goods and materials, including access to railways and navigable waterways;

²⁰ Metro Vancouver Climate 2050 Strategic Framework, September 2018 (Revised July 2019)

- Poor transportation infrastructure to some areas, coupled with a lack of local amenities, are making it difficult for some industrial businesses to attract and retain workers; and
- Policies related to industrial impacts on sensitive environmental features are limiting the development capacity of certain sites, requiring setbacks that can reduce building footprints to unusable sizes. Similar requirements for the remediation of previously occupied industrial sites have proven cost prohibitive for some industrial developments.

A. The Importance of Transportation and Goods Movement

From local deliveries, to the movement of materials and components for production, to importing and exporting goods to marketplaces beyond the region, having access to reliable and efficient methods of goods movement is an integral consideration for many industrial businesses. In this regard, Metro Vancouver's network of trucking routes, highways, railways and ports support both local serving businesses and its broader role as a gateway city between Canada and the western gateway.

Much as growth in the context of a finite land base is putting pressure on the region's industrial land base, so too does it put pressure on the region's transportation infrastructure network for moving goods and people. Concerns related to congestion, aging infrastructure, road safety, pollution and other externalities like the truck parking all affect the outlook for lands throughout the region. Towards this end, planning for the effective management of industrial land is intertwined with planning for the effective management of the transportation network.

A number of organizations and agencies in the region have made strides towards supporting the effective management of the transportation network, including initiatives such as:

- Translink's Regional Goods Movement Strategy and Regional Transportation Strategy;
- The BC Ministry of Transportation and Infrastructure's innovations and improvements in commercial vehicle monitoring and emissions standards;
- The Greater Vancouver Gateway Council's work to coordinate investment on regional infrastructure projects; and
- The Greater Vancouver Urban Freight Council's work to coordinate and champion initiatives related to goods movement.

2.2.4 A Complex Jurisdictional Environment

Industrial lands and the activities play a crucial role in the region and its economy. While land use is primarily managed at the municipal level, decisions related to the effective management of industrial lands have the potential to affect neighbouring municipalities, the broader region, and even aspects of the economy at the provincial and national level.

At the same time, the issues facing industrial lands involve multiple stakeholders and overlapping jurisdictions of government, which may have their own organizational mandates. The result is a fractured regulatory landscape which can occasionally result in redundancies or competing policy objectives that stifle the effective utilization of the region's remaining industrial lands for various purposes. For example, the Port of Vancouver, with its federal mandate to accommodate and grow trade-related economic activity, is not subject to provincial or regional policy. As the Port has acquired lands to support this objective, critics have raised concern that the Port is overriding local, regional and provincial land use policies and objectives, including the protection of agricultural land or other local economic priorities.

In other regards, competition between neighbouring municipalities to attract business and grow their respective tax bases may result in decisions that undermine the resiliency of the broader regional economy. This is best exemplified by the continued conversion of designated industrial areas to higher value land uses, despite the limited amount of industrial land remaining within the region.

Lack of collaboration between government agencies is also resulting in insufficient data sharing, education, and policy alignment reviews between organizations. These gaps have resulted in policy misalignment (such as overly permissive zoning in industrial areas) and blind spots (such as infrequent reporting on industrial land take up) which make it difficult to track and respond to issues facing industrial lands in a timely manner.

2.3 THE FUTURE OF INDUSTRY AND CHANGING SPACE NEEDS

Like many other industrial markets around the world, the region's industrial lands have undergone a long-term transition in the nature and form of their use. A steady shift away from heavy manufacturing and natural resource sectors, particularly amongst forestry-related businesses, coupled with increasing competition with other markets in an increasingly globalized market, have changed the balance and character of the region's industrial market over time. Throughout this transition, the region has evolved a diverse sectoral mix, while also retaining its role as a leading global port and economic gateway.

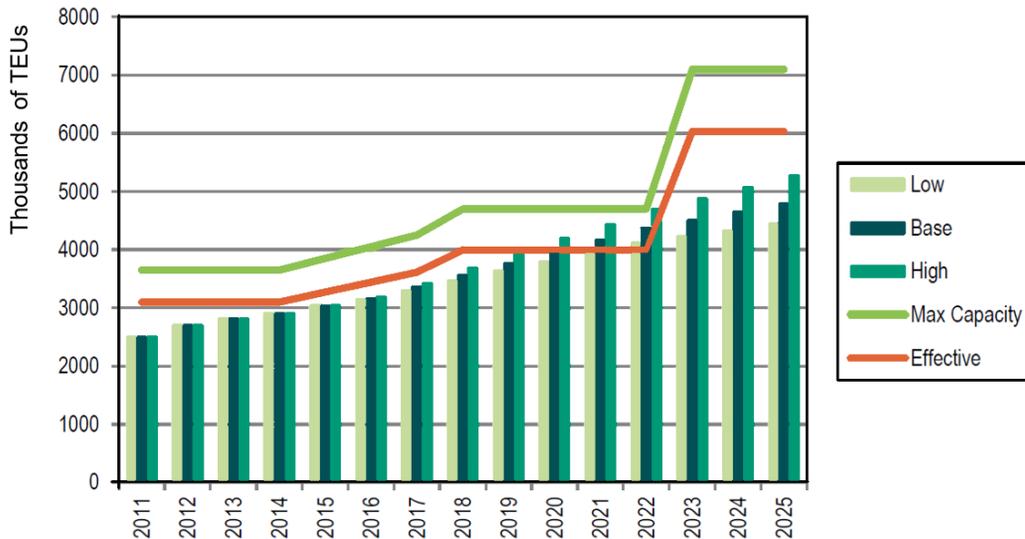
Locations including Granville Island, shores of False Creek, Fraser River and Burrard Inlet were once dominated by heavy industry, sawmills, large scale manufacturing, and rail operation. While a few of these uses still exist today, many industrial businesses have moved eastward or have ceased operation altogether, being replaced by predominantly commercial office and

residential development. In instances where employment uses have been retained, they tend to be in the form of light industrial, office parks and mixed commercial space.²¹

Though some traditional waterfront-oriented industrial activities have relocated or dissipated, the core ‘gateway’ functions of the Port of Vancouver and YVR airport have continued to thrive. Continued growth in global trade have driven demand for additional operational space, including the need for additional container terminals, warehousing space, and logistical facilities.

In terms of growth, the Port of Vancouver has consistently outperformed other North American ports since 1990, with growth in container traffic forecasted to outpace all other ports in the Pacific Northwest for the foreseeable future. Even with the establishment of a second provincial port in Prince Rupert and improvements and expansions to local port facilities, demand is forecast to drive the need for additional port-related facilities on Metro Vancouver’s industrial lands, as shown in Figure 10.

Figure 10: Port of Vancouver Capacity and Demand Development to 2025



Source: Container Traffic Forecast Study – Port of Vancouver, 2016

Note: Demand and Capacity are measured in Twenty-foot Equivalent Units (TEU). Demand scenarios present a Low, Base and High scenario for each year. The increase in capacity in 2023 represents the anticipated expansion of Roberts Bank Container Terminal 2.

Trade-enabling uses associated with the Port and YVR only represent one part of the demand for industrial lands. Despite the changing nature of industrial activities in the region, industrial lands continue to serve a fundamental role in facilitating city-serving activities, such as vehicle

²¹ The Changing Nature of Industry and Industrial Land Demand in Metro Vancouver: Discussion Paper Section 4.8

repair, food production, commercial laundry, utilities, light manufacturing and local distribution. These activities are crucial to the continued function of a range of economic activities across the region, including tourism (tour bus repair, restocking cruise ships), major office employment (printing, couriers, transit infrastructure management), and local retail businesses (food production and distribution, wholesales). At the same time, continued population growth has also increased the in-region demand for goods and related services, such as e-commerce, transportation, warehousing and distribution space, particularly last mile and fulfillment centres in close proximity to major population centres.²²

In addition to these city-serving functions, industrial lands are also playing a prominent role in accommodating the region's emerging innovation economy. These businesses do not fit easily into any one classic or conventional employment sector, as the nature of their work encompasses a wide range of activities including light manufacturing, media and digital entertainment production, clean-tech and bio-tech, software and hardware design, and various other uses. The space needs of these businesses can vary, but typically require a diversity of spaces at different scales, including offices, production space, and logistical facilities, many of which are most commonly associated with industrial and employment lands.²³

Changing industry profiles are not the only factor resulting in different land and space needs. Technological innovations are also dramatically changing the relationship between employment, productivity, and how industrial lands are occupied and used.

Automation, which has already significantly affected the manufacturing industry in recent decades, is expected to continue to change how goods are produced and tasks accomplished. With the potential advent of artificial intelligence and advanced robotics, there is a real possibility that more jobs in many more sectors could be affected by automation than ever, with 42% of the Canadian labour force at high risk of being affected by automation in the next decade or two.²⁴ As shown in Figure 11, automation will have a different impact on different sectors over time, with some sectors being susceptible to a significantly reduced need for labour as different waves of technological advancement occur over the next few decades.²⁵

²² The Changing Nature of Industry and Industrial Land Demand in Metro Vancouver: Discussion Paper, Section 4.2

²³ [Industrial Lands and the Innovation Economy, Metro Vancouver, June 2018](#)

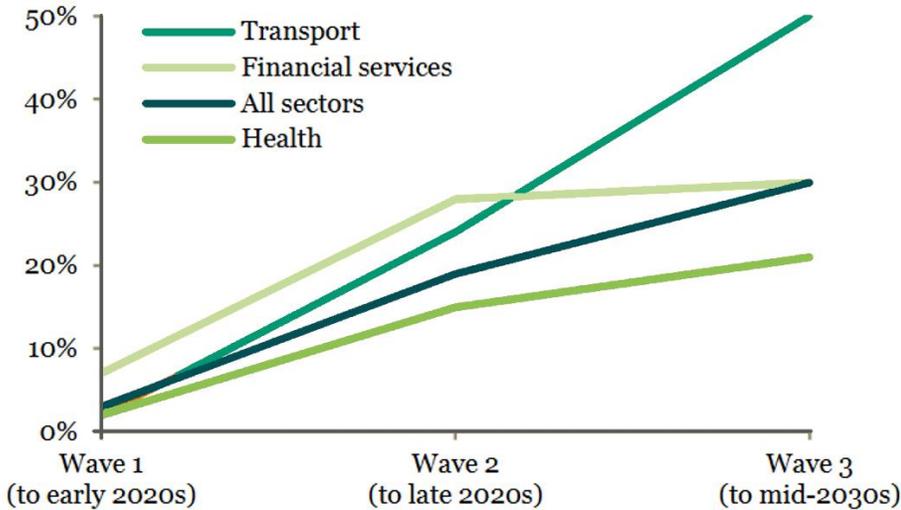
²⁴ [The Talented Mr. Robot, The Brookfield Institute for Innovation + Entrepreneurship](#)

²⁵ According to recent reports by Price Waterhouse Coopers, the next major impacts from automation are expected to occur in three waves:

- Wave 1 involves algorithmic automation (the automation of simple computational tasks);
- Wave 2 involves augmentation (dynamic interaction with technology for clerical support and decision making); and
- Wave 3 involves full automation of various tasks (including tasks that involve physical labour, manual dexterity, and problem solving, such as transportation and construction).

Figure 11: Estimated Potential Job Automation Rates by Industry across Waves

% of existing jobs at potential risk of automation



Source: 'Will Robots Really Steal Our Jobs?', PwC, based on OECD PIAAC data, 2018

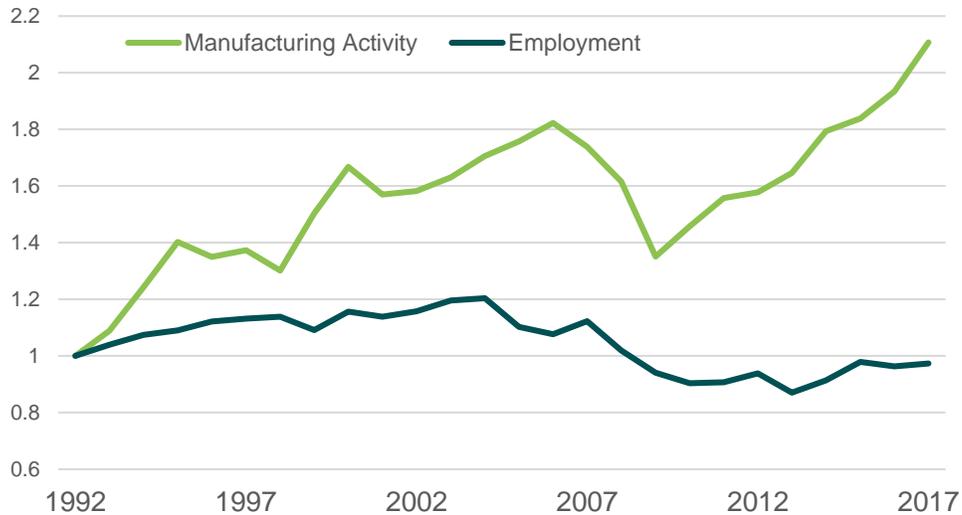
This change has the potential to affect the demand for labour in different sectors, but it does not necessarily mean that there will be any less demand for industrial land. While automation can lead to a number of operational efficiencies, it typically still requires space to conduct the business activity (e.g. production and warehousing of goods). As shown in Figure 12, despite declines in total manufacturing employment, manufacturing productivity in British Columbia has continued to grow.

The separation between manufacturing activity and employment has been occurring for quite some time, however this trend began to accelerate most notably following the 2008-2009 Global Recession. While manufacturing employment has yet to recover to its pre-recession levels, manufacturing activity has continued to grow.

Over this same time period (2008-2018), Metro Vancouver increased its industrial floor space by over 30 million square feet. This translates into an average growth rate of nearly 1.7% per year, significantly higher than the average annual industrial employment growth rate of 0.5% per year. While the amount of land take-up associated with this growth has declined over time, suggesting denser industrial buildings are being built, the demand for space is still resulting in a net demand for land.²⁶

²⁶ The Changing Nature of Industry and Industrial Land Demand in Metro Vancouver: Discussion Paper, Section 4.6

Figure 12: Comparison of Annual Manufacturing Activity (dollars) and Employment, Province of British Columbia, 1992 - 2017



Source: Hemson Consulting Ltd. using data from Statistics Canada Tables 304-0015 & 14-10-0023-01

Note: Figures have been indexed (1992 = 1)

2.4 INDUSTRIAL LAND DEMAND TO 2030 AND 2050

Forecasting the longevity of the industrial land supply is a particularly challenging task in Metro Vancouver because of its unique situation as a metropolitan region with a fixed land supply. While not quantifiable for the overall market, there is ample evidence that industrial development and land absorption is already limited by the availability of land for development. Some larger distribution and manufacturing facilities are already locating outside of Metro Vancouver simply because there are few large industrial sites available today or likely to be available in the future.

The preliminary update to Metro Vancouver’s industrial land inventory indicates significant absorption of lands since 2015, including many of the last remaining larger well-configured sites. While the remaining supply of about 1,050 ha truly vacant and another 750 ha in non-industrial uses that may eventually be developed for industrial, may seem significant, much of it is lands that are difficult to develop, fragmented and require assembly to bring to market, otherwise encumbered or whose owners are disinterested in development. As more of the unencumbered available sites are developed, an increasing proportion of that supply will be the more “difficult” or unavailable sites. Typically, full development of an industrial land supply is about a remaining 5% long-term land vacancy or 95% development; in Metro Vancouver’s case the long-term vacancy would be about 570 ha of an 11,330 ha developed and vacant supply.

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The land supply availability in Metro Vancouver means that there are two perspectives that can be taken to the demand forecast:

- What would the land demand be if there were no significant supply constraints in the region? and,
- Given the supply constraints, what is the demand for land that can be satisfied in the market and when will the available long-term supply near 95% full development?

There are two primary ways of forecasting land demand, both of which are appropriate ways to forecast and each can be used as a check on the other approach:

- The absorption method looks at the recent history of land absorption in hectares and projects the absorption forward for the forecast period. Adjustments to the forecast rate of absorption, up or down, are made to reflect expectations for a changing proportion of economic activity occurring on industrial land and higher or lower levels of overall growth expected, compared to the past.
- The other approach is an employment-based forecast, starting with a forecast of total employment and the relative growth by economic sector. The proportion of growth within sectors that may be accommodated on industrial lands provides an employment forecast for industrial areas. Applying an anticipated floor space per worker (in m² per employee) or an employment density (in employees per net ha) provides building space and land areas.

The most recently prepared forecast of regional land demand used an absorption method with a range of 80 to 110 ha per year (200 to 275 acres per year)²⁷. Applied to the effective supply of 1,820 ha (4,500 acres) identified in its analysis, full development would be reached between 2035 and 2045. Of course, land development does not proceed in a linear fashion until the last acre is consumed, rather it nearly always tails off for reason already described. This means that there is demand that cannot be met by the available supply well before a point of build out is reached. As noted in Section 2.3.1, for large sites (15+ ha) that point has already been reached in Metro Vancouver. To meet the demand forecast to 2050, the land demand White Paper recommends that an additional 800 to 1,600 ha (2,000 to 4,000 acres) be added to current vacant land inventory.

As part of the Regional Industrial Lands Strategy work, Hemson Consulting looked at industrial land demand from an employment growth perspective. The forecast is based on a low, medium and high range of Metro Vancouver employment growth from the current base. Following ongoing economic trends, a continued shift in the employment base of Metro Vancouver away from those sectors occupying industrial land towards service sector uses is

²⁷ The Changing Nature of Industry and Industrial Land Demand in Metro Vancouver: Discussion Paper

assumed to continue. Under this assumption, 24% of the region's job growth would be accommodated in industrial areas by 2051 (as compared to the 27% in 2016). Assuming an employment density at a somewhat optimistic average of 40 jobs per net ha, the resulting industrial land demand to accommodate this growth would be 75 to 110 ha per year (185 to 260 acres per year). This rate is quite similar to the conclusion noted in the land demand White Paper. Similarly, an additional 800 to 1,600 ha of land on top of existing supply would be a reasonable estimate of the lands needed to satisfy this demand.

In the absence of finding new land to meet the needs of continued demand for industrial land, the rate of absorption will tail off until near-full-development is reached. This decline in absorption will not be due to a lack of interest, but instead will be the result of businesses and jobs having relocated to markets that are more readily able to meet their needs. The combination of a constrained land supply and steady demand will keep the price of industrial land high, likely even higher than we are seeing today. This will be a limiting factor for some industrial activities, but will likely also force more intensive use of land where possible.

2.5 IMPLICATIONS FOR THE REGIONAL ECONOMY

Industrial lands serve a crucial role in accommodating a diverse and resilient economy. Regions that are more economically diverse tend to experience less instability and lower unemployment rates when compared to regions with more homogeneous economies. Complex economies, that is those that feature a web of interconnected industries and business sectors, also tend to be far more resilient, experiencing less economic decline during periods of recession, and faster recoveries.²⁸

In the same regard, failing to ensure a suitable amount of industrial land could limit growth and investment, and even weaken existing sectors that rely on these lands and their unique characteristics. Even with the changing nature of work and technological innovations resulting in evolving land and space needs, industrial lands will still be necessary to ensure regional economic diversity and resiliency for the foreseeable future.

The consequences of a constrained land supply are already being witnessed, with a number of large industrial businesses and activities being unable to find suitable space to locate or expand their business. For example, the Port of Vancouver has noted that, despite significant improvements to site intensification and optimization in recent years, it may be unable to accommodate future trade demand given its current land supply. As the Port approaches its capacity, it risks losing business to other ports along the western coast.

²⁸ [Metro Vancouver Industrial Lands: Economic Impact and Future Importance, Metro Vancouver, February 2019, Section 6.0](#)

Similarly, a shortage of space for logistics terminals is seeing demand grow for inland distribution ports as far away as Calgary.²⁹ These inland ports serve as staging areas for containers that are unloaded in Vancouver, transported by rail to the distribution hub to be unpacked and sorted, and then transported back to Vancouver to be delivered to end users and points of sale. Ashcroft offers an inland terminal focused on processing exports, such as lumber. In other cases, larger manufacturers are choosing to locate, or relocate, to areas with more available and affordable land south of the border, in communities such as Blaine, Washington.

The relocation of these business and trade activity could have a negative impact on the region, province and even country. For example:

- Should a business relocate to another port in the province, such as Prince Rupert, the impact might be neutral for British Columbia and Canada, but negative for the Metro Vancouver region;
- Should a business relocate to Alberta, the net impact might be neutral for Canada, but negative to the Metro Vancouver region and British Columbia; and
- Should a business relocate south of the border (such as Washington, Oregon or California), the net impact would be negative to the Metro Vancouver region, British Columbia, and Canada.³⁰

The potential impacts of losing industrial activity due to lack of available land are threefold:

- The loss of local businesses could negatively impact the economy due to the loss of potential or existing jobs and tax revenues for governments.
- The further about these businesses locate, the greater the distance goods must be transported, resulting in increased fuel consumption, greenhouse gas emissions, traffic congestion and cost to consumers.
- The loss of industrial activity could weaken the region's economic diversity and resiliency, potentially exposing the economy to greater fluctuations in market cycles and broader economic shifts.³¹

²⁹ [Calgary Economic Development, "Calgary is becoming a major port city – no shoreline needed", February 6, 2018](#)

³⁰ [Metro Vancouver Industrial Lands: Economic Impact and Future Importance, Metro Vancouver, February 2019, Section 8.0](#)

³¹ [Metro Vancouver Industrial Lands: Economic Impact and Future Importance, Metro Vancouver, February 2019, Section 8.0](#)

It is worth noting that adding new industrial uses in Metro Vancouver could result in its own set of costs and challenges, including increased competition for land and the potential to increase traffic, business related emissions, and possible conflicts with other uses. However, on the whole, these costs and challenges are unlikely to be greater than the net loss and environmental impact that is likely to occur if these businesses relocate elsewhere.

3. RECOMMENDATIONS

To achieve the vision of the *Regional Industrial Lands Strategy*, and to address the issues identified in the previous section, four BIG MOVES have been identified. These policy areas respond to the challenges discussed above, and have been used to organize the 35 recommendations below. The four BIG MOVES are:

1. Protect Remaining Industrial Lands
2. Manage Pressure on Industrial Lands
3. Bring the Existing Land Supply to Market and Address Site Issues
4. Ensure a Coordinate Approach

1. PROTECT REMAINING INDUSTRIAL LANDS

Conduct a Regional Land Use Assessment

In the context of Metro Vancouver’s finite and constrained land base, there is significant pressure for competing, legitimate land uses across the region. There is an opportunity to undertake either a targeted or region-wide assessment of land use, seeking not to reflect what is already in existing policy frameworks, but rather to proactively identify the ‘best’ locations for different land uses depending on a developed set of criteria (e.g. location, adjacent land uses, lot size, proximity to the goods movement network). Such an assessment could potentially identify areas where a swap of existing land uses may be reasonable, including opportunities to optimize the remaining supply of industrial land.

RECOMMENDATION 1: That Metro Vancouver, in collaboration with member jurisdictions, other regional agencies, First Nations, and other relevant stakeholders, conduct a comprehensive assessment of current land uses and designations in identified areas of interest.

This assessment will identify, based on a defined set of criteria and cross-jurisdictional considerations, opportunities for more optimized locations and uses of land in order to support regional and local policy objectives and to inform policy changes.

- a) That Metro Vancouver and member jurisdictions work with the Provincial and Federal governments, the Port of Vancouver, and YVR to identify if industrial functions can be integrated or co-located on public industrial lands. This includes examining the potential for joint use for large non-intensive land uses such as extractive activities, airports, public rights-of-way, and others.
- b) Where existing designated land uses are determined to be underutilized, Metro Vancouver, in consultation with the owners of the subject lands, the member jurisdiction in which they are located, and other relevant stakeholders, may consider the potential for swaps with other land uses. The proposed swap should be

considered between lands that are identified as being underutilized through the land use assessment, located within the same jurisdiction or elsewhere within the region, and improve the potential for the intended uses per the land use assessment criteria.

- c) That Metro Vancouver assess whether or not there are sufficient supplies of suitable land to reasonably accommodate retail, service or recreational uses that may be restricted from otherwise locating within Industrial areas.

Strengthen Regional Policy

Metro 2040 seeks to protect the stock of industrial land in the region and to promote its efficient use. Working with member jurisdictions, TransLink and the Port of Vancouver, the plan supports a strong, prosperous economy, job diversity and an efficient goods movement network. The primary tool to protect industrial lands is the application of parcel based land use designations. If a member jurisdiction seeks to change the use of lands with a regional Industrial designation, it must first come to the Metro Vancouver Board for a discussion about the regional implications and trade-offs.

The Metro Vancouver Board has initiated a comprehensive update to *Metro 2040*. This provides an opportunity to strengthen regional policy through a number of means, including increasing the voting threshold for the conversion of industrial lands, potentially requiring no net loss of industrial lands when considering a conversion, refining regional definitions for permitted uses on industrial lands, or considering mixed-use as an acceptable use in certain locations and in alignment with other criteria. Metro Vancouver will be undertaking a *Metro 2040* policy review for Industrial and Employment lands.

RECOMMENDATION 2: As part of the update to Metro 2040, that Metro Vancouver strengthen regional policy by considering:

- a) an increase in the voting threshold required for a minor amendment to convert Industrial and/or Mixed Employment to General Urban;
- b) exploration of ‘no net loss of land’ as part of the amendment criteria for Industrial lands, recognizing the regional benefit of conversions that are offset by land-swaps in suitable locations within the municipality or elsewhere in the region;
- c) clarification of the definitions and permitted uses on the Industrial and Mixed Employment regional land use designations, including appropriate principal and accessory uses by type and scale; and
- d) allowing mixed-use with residential on Mixed Employment lands immediately proximate to Rapid Transit Stations (distance to be determined, but suggest 200 m) as long as existing industrial space is maintained or expanded and other *Metro 2040* objectives are met (e.g. affordable, rental housing).

Zoning Consistency for Industrial Lands

The definition of ‘industrial’ in zoning bylaws and associated permitted uses (and scale of accessory uses) varies significantly across the region. Different zoning bylaws permit accessory and non-industrial uses, such as recreation, big-box retail and places of worship, on industrially zoned lands, creating additional competition for industrial land from uses that should be located elsewhere. This bylaw review and update should both: remove non-industrial uses from the zoning while adding new types of industrial uses, and limit the scale or size of accessory uses.

Zoning consistency would limit non-industrial, commercial and institutional uses in certain locations consistently across the region, and would create a clear understanding and unified permissible uses while aligning well with the regional growth strategy.

RECOMMENDATION 3: That Metro Vancouver, in collaboration with member jurisdictions and other regional agencies, develop a consistent definition of ‘industrial’ and guidelines for which primary and secondary (or ancillary) land uses should be permitted in Industrial and Mixed Employment designated areas, respectively;

and that member jurisdictions, as part of their Regional Context Statement updates, commit to review and update their zoning by-laws using the established guidelines as a resource to amend the permitted uses in their local industrial and employment lands.

Recognize and Protect Trade-Enabling Lands

It is important to recognize that trade-enabling industrial uses (such as logistics, warehouses, distribution centres, along with transportation terminals) are a crucial part of Metro Vancouver’s role as an economic gateway between the Pacific and the rest of the country, and that these uses typically have a very specific set of needs that set them apart from other industrial uses. These types of uses typically require larger, low-density sites (as measured in the amount of building area) that allow for flexible movement and storage of goods, with proximate access to highway, port, or rail infrastructure. Amongst the region’s industrial land supply, sites that offer these characteristics are limited.

Because these sites also tend to offer attractive characteristics for other types of industrial uses, trade-enabling uses often compete with other industrial uses when looking to purchase and develop these lands. The low-density nature of many trade-enabling uses means that they often struggle to compete, particularly when increased development densities are permitted as of right under more broad industrial zoning. This is of particular concern when stratification of industrial is permitted, which tends to both significantly increase the price competing users can offer for the land, while also fragmenting ownership of the property, which can be an issue for operators that require large secured sites.

To ensure these strategically located sites are protected, a coordinated approach among the Province, the region, and local municipalities is likely required. This could be in the form of a provincial designation, regional overlay and municipal zoning. Given the limited control municipalities have over tenure of non-residential land uses through zoning, the province may also need to consider granting additional powers under the Local Government Act to ensure these sites are reserved for their intended use.

RECOMMENDATION 4: That the Province of BC, in consultation with local municipal governments, establish an Industrial Land Reserve for strategically located Trade-Enabling industrial lands in the Lower Mainland (Metro Vancouver and Fraser Valley Regional Districts).

This designation would be intended to curtail industrial land conversions by providing clear land use permissions and restrictions. Criteria for lands in the Reserve would be developed in collaboration with affected jurisdictions, but would at a minimum, identified lands would feature large sites and access to existing and/or planned major infrastructure, such as navigable waterways, railroads, airports and highways.

RECOMMENDATION 5: That Metro Vancouver, as part of the Metro 2040 Update, develop a Trade-Enabling land use overlay.

This overlay would distinguish industrially designated lands based on key criteria (i.e. site size, proximity to existing and infrastructure linkages) and provide additional guidance to member jurisdictions regarding permitted land uses to protect trade-enabling regional activities.

RECOMMENDATION 6: That municipalities, in collaboration with Metro Vancouver, identify and designate appropriate areas as Trade-Enabling Zoning.

Non-industrial uses and the fragmentation of parcels are to be restricted within these areas in order to maximize these strategically located lands for industrial and trade-focused activity. To achieve this, member jurisdictions may also seek to limit stratification of ownership to a minimum size to prevent the fragmentation of large trade-enabling parcels.

RECOMMENDATION 7: That the Province of BC, via the *Local Government Act*, grant municipalities the legislative powers to define permitted forms of tenure (i.e. leasehold versus stratified freehold) on industrial land through local zoning bylaws.

Encourage Intensification in Appropriate Locations

Within the context of a constrained land base, it is critical to encourage development in a manner which makes the most efficient use of the remaining supply for all types of industrial users. Currently multi-storey industrial is exceedingly rare in most North American markets because, for most uses, multi-storey space is much more expensive than the single storey

buildings. However, as the remaining industrial land supply is diminished, it may become feasible for more of this type of development to occur in the future.

To encourage more efficient use of the region's remaining industrial lands, it would be beneficial to ensure industrial users that are able to locate in more intensive built forms are not restricted by policy. In addition to removing height and density restrictions in areas that have the opportune market and physical characteristics necessary to support intensive development, municipalities may also seek to offer incentives to attract and realize this form of development in strategic locations.

RECOMMENDATION 8: That municipalities facilitate the physical intensification (i.e. densification) of industrial built forms where possible by:

- a) reviewing and removing any unnecessary restrictions to density or height limits, where contextually appropriate;
- b) planning the space to accommodate new, smaller industrial uses when older, centrally located industrial areas densify;
- c) allowing mixing of industrial with other employment uses so long as the industrial component is secured as a condition of redevelopment; and
- d) exploring opportunities to encourage intensification in target areas (i.e. proper geotechnical conditions, access to infrastructure and transit) via incentives. These could include pre-zoning, density bonuses, financial incentives, and/or others.

RECOMMENDATION 9: That Metro Vancouver conduct a study of the financial factors and other issues that prevent the development of multi-storey industrial spaces in various regional market areas.

The study should identify the gap between development costs and market rents or sales prices in different municipalities to assess if there are ways that Metro Vancouver and member jurisdictions could improve the feasibility of delivering higher-density industrial spaces.

2. INTENSIFY AND OPTIMIZE INDUSTRIAL LANDS

Provide Greater Clarity on Agri-Industrial Uses in the Agricultural Land Reserve

While both industrial and agricultural lands are under pressure to convert to other land uses, these two types of land uses are often posited against one another, particularly as it relates to agri-industrial businesses. While there are permissions for some agri-industrial uses within the Agricultural Land Reserve, there is some uncertainty over the scope and scale of activity that can be permitted before these uses would have to relocate to urban industrial areas.

RECOMMENDATION 10: That the Ministry of Agriculture, in consultation with the Agricultural Land Commission, amend legislation to define under what conditions, if

any, large-scale organic waste processing facilities are permitted in the Agricultural Land Reserve.

RECOMMENDATION 11: That the Ministry of Agriculture produce guidelines or amend legislation to: define the metrics used to measure the 50/50 rule (i.e. volume, weight, value, etc.) to facilitate consistent application; and clarify the permitted value-added infrastructure of an approved use on an agricultural parcel and define a cap on building infrastructure footprint.

Ensure Consideration of Industrial Lands and Assets in a Regional Flood Management Strategy

Climate change and the impacts of rising sea levels are likely to be one of the greatest challenges of our time, and their potential impact on the industrial land supply cannot be ignored. A significant portion of the region's industrial land supply, including most major port and airport facilities, are located within low lying areas that are anticipated to be at risk in the face of rising sea levels and more frequent flooding events. As the Fraser Basin Council develops a flood management strategy for the region, it is critical that that industrial lands be given proper consideration to ensure the continued economic resiliency of the region, while also recognizing the cost that adaptation measures may have on industrial development in the future.

RECOMMENDATION 12: That in developing a Regional Flood Management Strategy, the Fraser Basin Council commit to ensuring industrial lands and their economic contributions to the broader region are considered when identifying and prioritizing measures to adapt to rising sea levels and flood events.

Review the Impact of Tax Assessment on Existing Industrial Uses

Growth in assessment values on the region's industrial lands have risen rapidly in recent years. The associated rise in property taxes is putting increasing pressure on industrial businesses, particularly in high growth and value urban areas where the practice of assessing property in terms of the highest and best use has limited link to the current use. Should this trend continue, it could potentially displace industrial users and undermine the intended use for the land.

RECOMMENDATION 13: That the Province of BC study the implications of the current approach to property tax assessment and tax rates based on the highest and best use of a property with regard to its impact on industrial businesses.

This study should identify if there are reasonable approaches to mitigate the destabilizing effect of rapidly rising assessments and taxes on established businesses, particularly in high growth and value areas.

3. BRING THE EXISTING SUPPLY TO MARKET & ADDRESS SITE ISSUES

Manage Land Use Conflicts through Buffering Policies

Managing the interface between industrial uses and other sensitive land uses, particularly residential, is a significant issue when it comes to preserving the functionality of existing industrial uses, while also protecting for future economic activity. A broad range of planning tools exist that may contribute to the mitigation of potential, existing or perceived nuisances, offering varying degrees of flexibility or conversely, prescriptiveness. Member jurisdictions across Metro Vancouver incorporate a range of approaches to managing this interface. However, while there are common elements amongst these approaches, there is no single approach that meets the context and needs of each community.

While there is little appetite for a “one-size-fits-all” approach to interface management, both locally and in other jurisdictions, there are certain leading practices which could be formally recognized through regional guidance to encourage more effective management of industrial edges and conflict prevention.

RECOMMENDATION 14: That Metro Vancouver, in consultation with member jurisdictions, develop guidelines for land use policies along the edge of planned or developing Industrial areas where no natural or other physical buffer already exists.

These guidelines will serve as reference for member jurisdictions on how to mitigate the potential for conflict with other sensitive uses depending on the context:

- Where the industrial area is already established, direct employment uses, including light industrial, commercial, and office, or other non-sensitive uses to the area abutting the Industrial lands to serve as a transitional land use.
- Where the industrial use is encroaching upon an established sensitive use, direct light industrial and ancillary components of the primary Industrial use to the edge of the industrial area where the sensitive use is located to serve as a transitional land use.
- In cases where the abuttal of industrial and other sensitive uses cannot be separated by other land uses, the guidelines should also provide direction towards:
 - Site design best practices including recommended minimum setbacks for different industrial uses, on-site migration measures such as visual screening of mechanical equipment, requirements for enclosing industrial activities, lighting fixtures, and recommended performance standards, where appropriate.
 - Mitigation requirements for residential and other sensitive uses that are encroaching upon areas of existing or planned industrial activity and associated vehicle traffic, including consideration for the potential for future intensification of industrial uses.

RECOMMENDATION 15: That the Province of BC enable municipalities the discretion to place a warning of anticipated nuisance effects on title of any sensitive uses that are being developed within a defined proximity of an established or planned industrial use or goods movement corridor.

The notification warning should be included in any offers of purchase and sale, notifying current and prospective owners and tenants that they within the potential area of influence of the industrial use, and may experience adverse effects as a result.

RECOMMENDATION 16: That municipalities adopt the Railway Association of Canada and Federation of Canadian Municipalities Guidelines for New Development in Proximity to Railway Operations when considering development permissions and changes of use in proximity to active railway corridors and other major goods movement corridors.

Develop Local Bring-To-Market Strategies

Certain parts of the vacant industrial land supply suffer from site-specific challenges, such as limited infrastructure support, environmental concerns, and undersized parcels. Where vacant lands have not come to the market, local municipalities may benefit from the preparation of a bring-to-market strategy. Such a strategy would identify the issues which have prevented the development of the undeveloped or underdeveloped industrial land, while providing a roadmap to achieve the municipality's economic goals for its remaining industrial lands.

RECOMMENDATION 17: That municipalities with vacant or under-developed industrial lands prepare a bring-to-market strategy for their industrial land supply.

The strategy should address:

- assessing the strengths, weaknesses, opportunities and challenges facing the development of their vacant industrial land;
- identifying opportunities to encourage reinvestment and more intensive use of their existing industrial lands;
- whether municipal assembly and consolidation of fragmented parcels may be required, or is feasible, in order to bring the lands to market;
- if environmental remediation is required and if current programs are sufficient to facilitate the required degree of site remediation; and
- if local servicing and infrastructure improvements are required and can be accommodated through front-ending infrastructure investment agreements.

Ensure Transportation Connectivity between Industrial Areas

The efficient movement of goods and people is an important consideration for many industrial businesses in terms of where they choose to locate. This is true for both local serving businesses and trade-enabling operations. As such, the maintenance and growth of a resilient and reliable transportation network, including various modes of transit, is an integral component in planning for the effective management of the region's industrial lands.

RECOMMENDATION 18: That TransLink, Metro Vancouver, the Port and municipalities continue to work together to proactively designate, manage, and regularly update the Regional Truck Route Network in line with the recommendations of the Regional Goods Movement Strategy to ensure the safety and reliability of the regional goods movement network.

RECOMMENDATION 19: That TransLink, as part of the update to the Regional Transportation Strategy, continue to identify viable new opportunities to create and improve transit linkages between the region's industrial areas and local workers.

RECOMMENDATION 20: That the Port of Vancouver, through updates to Gateway 2030, Metro Vancouver, through updates to Metro 2040, and TransLink through updates to the Regional Transportation Strategy, work together to identify policies and actions that support the optimization and safety of goods movement to and from industrial lands via roads, highways, railways and access points to navigable waterways including short sea shipping.

RECOMMENDATION 21: That the Province of BC work with municipalities and industry partners, to understand, forecast, plan for, and mitigate the impacts of the land demands for truck traffic and parking related to goods movement and drayage.

RECOMMENDATION 22: That the Port of Vancouver continue to work with Metro Vancouver and TransLink to optimize port-related land uses and container drayage using a triple bottom line approach. Example strategies to evaluate and assess for viability include:

- more effective utilization of the existing multi-modal transportation network on a 24-hour basis;
- expanded short sea shipping; and
- enhanced co-location of import and export transload facilities near-dock, on dock and along regional rail linkages.

RECOMMENDATION 23: That the Greater Vancouver Gateway Council continue its efforts to attract grants and other funding, and leverage their success towards improved infrastructure linkages and capital investments that support regional and local policy goals.

RECOMMENDATION 24: That the Greater Vancouver Urban Freight Council continue its efforts to coordinate the implementation of the Regional Goods Movement Strategy between its member organizations.

RECOMMENDATION 25: That regional organizations and stakeholders continue to investigate and implement options designed to reduce the environmental impacts related to the transportation of goods and people in the region, through their respective plans and policies including:

- the Province of BC's efforts to improve standards such as the Renewable & Low Carbon Fuel Requirements Regulation and improved permitting and tracking to help reduce greenhouse gas emissions from the commercial trucking industry;
- Metro Vancouver's efforts towards protecting and improving air quality while ensuring infrastructure, ecosystems and communities are resilient to the impacts of climate change through Climate 2050 Strategic Framework and associated policy road maps;
- the Port of Vancouver's efforts to optimize and reduce the carbon impact of its operations;
- TransLink's efforts to optimize goods movement and public transit options through the Regional Goods Movement Strategy and Transport 2050; and
- local municipal efforts to expand access to charging station infrastructure for electric vehicles.



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METRO VANCOUVER REGIONAL INDUSTRIAL LANDS STRATEGY: DRAFT

Industrial Lands Strategy Task Force

4. ENSURE A COORDINATED APPROACH

Improve Data Standards and Sharing

A challenge for the effective planning and management of industrial lands is timely access to quality data. This is true for both land management and the development of effective economic policy. However, many of the data sources available to the region are prepared infrequently, such as the Census and Industrial Lands Inventory Update, or are not fine-grained enough to provide useful guidance at the local level, such as the Labour Force Survey. Through the development of more effective data collection frameworks and sharing agreements, the region and its partners would be able to greatly improve the quality of data on which it bases its future policy decisions.

RECOMMENDATION 26: That Metro Vancouver produce an annual report that summarizes changes to the industrial land inventory, while continuing to publish a comprehensive Regional Industrial Land Inventory every 5 years.

RECOMMENDATION 27: That municipalities provide a summary report of local development activity on lands in the Metro Vancouver Industrial Land Inventory as part of their regional Development Cost Charge reporting, which are required once per year.

RECOMMENDATION 28: That Metro Vancouver, in collaboration with member jurisdictions, conduct a regional employment survey on a bi-annual basis.

This survey should be designed to provide a greater level of detail related to employment activity and space use than is currently available through the Statistics Canada Census and other primary worker surveys, and should be standardized to provide comparable data across different employment sectors, time periods, and parts of the region.

RECOMMENDATION 29: That major regional industrial land users and organizations, such as the Vancouver Fraser Port Authority, YVR, NAIOP and other relevant stakeholders, consider expanding data sharing partnerships for the purpose of improving economic development and infrastructure investment, guiding land use and goods movement planning, and informing the development of associated policies.

Encourage Growth and Investment through Regional Economic Coordination

Both the Regional District and its member jurisdictions have a vested interest in attracting new investment and accommodating new economic and employment activity to within their borders, many of which feature their own respective economic development arms or departments. However, inter-jurisdictional competition for investment has meant that cooperation and collaboration between economic agencies in Metro Vancouver has historically been somewhat limited.

By following the successful example set by other economic regions and taking a more holistic regional approach to economic collaboration, Metro Vancouver's newly formed Regional Economic Prosperity Service could work together with member jurisdictions to improve the region's ability to promote the growth and development business across all parts of the region. Doing so could help to identify new economic opportunities in line with local and regional economic objectives, while also better guiding prospective investors to identify and develop suitable locations within the region's industrial land supply.

RECOMMENDATION 30: That Metro Vancouver, in consultation with member jurisdictions, First Nations and relevant stakeholder organizations, document and promote the region's value proposition from an industrial economy perspective.

This proposition would broadly identify the types of businesses and investments that the region collectively wants to both grow locally and attract from other markets, and would guide future policies for economic development and land use.

RECOMMENDATION 31: That Metro Vancouver, within the scope of the Regional Prosperity Service's mandate, and in line with the region's values proposition, encourage the growth and expansion of local businesses, and attract and coordinate industrial investment to Metro Vancouver's industrial lands.

This should be done in partnership with the economic development bodies of municipalities and other partners to provide a coordinated regional approach to economic development, promotion, data collection and research.

RECOMMENDATION 32: That Metro Vancouver, through the Regional Prosperity Service, assist member jurisdictions seeking to develop and update their own local bring-to-market strategies by providing data and research support in line with its mandate.

Coordinate with Neighbouring Regions

In the case of population and economic growth in an area of finite land capacity, pressure for industrial land is already spilling over into neighbouring regions. For example, the Fraser Valley Regional District is likewise facing a shortage of industrial land. However, with these challenges also comes the possibility of shared opportunity. The broader economic region of southwestern British Columbia presents opportunities for collaborative planning that reaches beyond Metro Vancouver's borders, building on shared infrastructure linkages to expand upon the role as an economic gateway, while also creating new opportunities for growth.

RECOMMENDATION 33: That the Province of BC develop a framework for economic and land use planning coordination between neighbouring regions in the broader Southwestern BC economic region to support industrial land protection by:

- providing a Lower Mainland-wide view for industrial land management, infrastructure investment and other economic development opportunities between Metro Vancouver and the Fraser Valley Regional District;
- identifying options to expand the Lower Mainland's economic linkages with trade-oriented and industrial uses along major highway and rail corridors in the Squamish-Lillooet Regional District, Thompson-Nicola Regional District, and Regional District of Okanagan-Similkameen; and
- identifying opportunities to for short sea shipping and maritime linkages with other port facilities located on Vancouver Island and along the Georgia Strait.

RECOMMENDATION 34: That Metro Vancouver and the Fraser Valley Regional District develop and sign a memorandum of understanding that outlines their shared priorities regarding and commitment to the effective and efficient management, protection, and development of industrial lands within the Lower Mainland.

RECOMMENDATION 35: That the federal government, in implementing the Port's Modernization Review, take a broader provincial perspective for ports in British Columbia, in part to alleviate land pressure in the Lower Mainland.

4. PRIORITY ACTIONS - IMPLEMENTATION

The challenges facing Metro Vancouver’s industrial lands are complex and interconnected, and no one policy change will resolve them. A complicating factor is the diverse make-up of the region and its industrial sub-markets. Land use policies that work well in one jurisdiction may not be effective in another. As such, policy implementation must reflect the local context.

Successfully achieving the vision of the *Regional Industrial Lands Strategy* will require a collaborative approach and sustained effort on the part of various governing bodies and stakeholders with overlapping, yet distinct areas of business, jurisdiction in the region. Each of the identified actions will take time and resources to realize their full potential, and while some recommendations can be implemented in the near term, while others may take additional time to build capacity before implementation. The key to success will be to act in partnership, setting early priorities with clearly defined roles.

From the list of 35 recommendations, a short-list of 10 priority actions is identified. This list reflects the immediacy of specific pressures facing the region’s industrial land supply, along with stakeholder feedback gathered through the development of the draft strategy. Due to the complexity of the issues and areas of overlapping jurisdiction among partner organizations, lead roles are identified for implementation with respect to the core mandates of each partner.



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METRO VANCOUVER REGIONAL INDUSTRIAL LANDS STRATEGY: DRAFT

Industrial Lands Strategy Task Force

Protect Remaining Industrial Lands

Given the projected high demand for industrial land in the region, it is imperative to protect the region's remaining industrial lands while curbing the threats that undermine industrial uses on these lands.

Implementation Priority	Recommendation	Lead Role
1. Strive for zoning consistency for industrial land by developing a consistent definition of industrial and guidelines for permitted uses.	3	Metro Vancouver and municipalities
2. Strengthen regional policy in the Regional Growth Strategy by increasing the minor amendment voting threshold for Industrial and other requirements.	2	Metro Vancouver
3. Recognize and protect trade-enabling lands in strategic locations through specific land use designations and increased direction for permitted uses.	4 5 6	Province of BC, Metro Vancouver, Municipalities

Intensify and Optimize Lands

While acknowledging the reality of a constrained land base, policies that encourage the intensification of industrial land, while also investigating opportunities to optimize the location of certain land uses over time.

Implementation Priority	Recommendation	Lead Role
4. Encourage intensification of industrial uses in appropriate locations by removing unnecessary restrictions on increased development heights and densities and explore opportunities to incentivize such developments, as informed by regional guidelines.	8	Municipalities
5. Conduct a Regional Land Assessment.	1	Metro Vancouver

Bring the Existing Land Supply to Market and Address Site Issues

To ensure the region’s remaining vacant supply gets to market, identify the local issues facing these lands and the linkages between them, and map out the necessary policy updates and strategic investments in response.

Implementation Priority	Recommendation	Lead Role
6. Develop ‘bring-to-market’ strategies for remaining areas of vacant land to proactively identify and address issues preventing sites from being developed.	17	Municipalities
	32	Metro Vancouver
7. Coordinate strategies encouraging local economic growth, local business expansion, and attraction of investment across Metro Vancouver.	30	Metro Vancouver and municipalities
	31	
8. Ensure transportation connectivity among the region’s industrial areas by working together to proactively designate, manage and coordinate investment related to the region’s goods movement network.	18	TransLink
	19	Port of Vancouver
	20	
	22	



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METRO VANCOUVER REGIONAL INDUSTRIAL LANDS STRATEGY: DRAFT

Industrial Lands Strategy Task Force

Ensure a Coordinated Approach

Improved cooperation and data tracking between governments and other organizations will be necessary to ensure accurate monitoring and effective land management into the future, while also guiding future coordination and alignment in terms of policy responses to issues as they arise in Metro Vancouver and across southern British Columbia.

Implementation Priority	Recommendation	Lead Role
9. Establish a broader framework for economic and land use planning collaboration between Metro Vancouver, neighbouring regions, and port facilities to support industrial land protection.	33	Province of BC
	34	Metro Vancouver, FVRD
	35	Canadian Federal Government, Port of Vancouver
10. Conduct a regional employment survey bi-annually to provide a better method of tracking changes in employment growth, land use, and built space over time.	28	Metro Vancouver

Together, these priority actions will work to ensure the region's industrial lands continue to provide an attractive and viable location for businesses to locate, grow and prosper, while supporting the broader regional economy and community.

As recommendations are implemented, new issues will emerge and new priorities may need to be adjusted and the roles of partner organizations may need to be reshuffled. Additional new policy actions, not included on the list of priorities and big moves, will be added as actions are implemented. This is expected to be an iterative and ongoing process that will need to be implemented and monitored over time. As new challenges arise and new information becomes available, new actions will inevitably need to be identified and prioritized, which may augment or replace other short-listed recommendations.

APPENDIX

REGIONAL INDUSTRIAL LANDS STAKEHOLDERS – ROLES AND RESPONSIBILITIES

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METRO VANCOUVER REGIONAL INDUSTRIAL LANDS STRATEGY: DRAFT

Industrial Lands Strategy Task Force

Regional Industrial Lands Stakeholders – Roles and Responsibilities

Many different agencies and organizations play a key role in the management, development, and use of industrial lands in the Metro Vancouver region. Each actor has a different role, different responsibilities, and different authority over the rules, guidelines and decision making as it relates to industrial land and its use.

Organization		Purpose/Mandate	Roles and Responsibilities related to Industrial Lands
Local	Member Jurisdictions (21 municipalities, 1 Treaty First Nation, 1 Electoral Area)	Represent the interests and respond to the different needs and changing circumstances of their communities, residents and businesses	<ul style="list-style-type: none"> • Designating permitted land uses and regulating the density and form of development through local zoning by-laws, neighbourhood plans, and Official Community Plans • Building and maintaining streets, sidewalks, and local infrastructure • Regulate traffic, use of streets (including on-street parking) and the size and weight of vehicles that are permitted to travel on municipal streets • Setting municipal property tax mill rates for industrial and commercial uses
Regional	Metro Vancouver	Delivers regional services, policy and political leadership on behalf of 23 member jurisdictions	<ul style="list-style-type: none"> • Supports coordinated land use planning around common framework for regional growth management • Communicating value of industrial land uses and improved regional transportation network, including efficient goods movement, as components of broader economic ecosystem
	TransLink: South Coast British Columbia Transportation Authority (SCBCTA)	Transportation authority for Metro Vancouver region Mandate to provide a regional transportation system that moves people and goods and supports the regional growth strategy and regional and provincial environmental and economic objectives	<ul style="list-style-type: none"> • Operates integrated regional transit system • Owns and operates 5 bridges • Together with municipalities, co-funds and co-manages the Major Road Network (MRN) • Leads and facilitates regional goods movement research and planning

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Organization		Purpose/Mandate	Roles and Responsibilities related to Industrial Lands
Provincial	Government of British Columbia	<p>Authority to create local governments and their governing legislation</p> <p>Authority over Provincial Highways, roads and other infrastructure</p> <p>Coordinates high level economic development issues of provincial interest</p> <p>Authority to identify and legislate use for specific lands (i.e. Agricultural Land Reserve)</p>	<ul style="list-style-type: none"> • Provincial legislation, such as the Local Government Act • Provincial transportation planning and policy • Administers a number of acts related to transportation and goods movement, including the Motor Vehicle Act and the Commercial Transport Act • Highway construction and maintenance • Commercial vehicle safety and enforcement • Port and airport development • Infrastructure grants • Major capital project management • Provincial emergency management
	Agricultural Land Commission	<p>Preservation of agricultural land</p> <p>Encourage local governments, First Nations, and others to enable and accommodate farm use of agricultural land and uses compatible with agriculture in their plans, by-laws and policies</p>	<ul style="list-style-type: none"> • Sets regulations for determining which business activities are permitted within the Agricultural Land Reserve • Determines the scope and scale at which agri-industrial businesses are allowed to locate within the ALR before having relocate to industrial lands in the urban containment boundary
Federal	Government of Canada	<p>Promotes safe, secure, efficient and environmentally-responsible transportation and trade-oriented land uses in Canada</p>	<ul style="list-style-type: none"> • Administers a number of Acts related to transportation, including vehicle requirements on new equipment pursuant to the Canada Motor Vehicle Safety Standards (CMVSS), engine emission standards, and rail safety standards • Provides funding to help improve major infrastructure systems, including Asia Pacific Gateway initiatives • Works with its portfolio partners, other government departments and jurisdictions and industry to ensure that trade-related networks and transportation systems work well • 18 Port authorities fall under the federal portfolio across Canada

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Organization		Purpose/Mandate	Roles and Responsibilities related to Industrial Lands
Federal	Port of Vancouver	Responsible for the stewardship of federal port lands in and around the region	<ul style="list-style-type: none"> • Oversee transportation operation in collaboration with terminal operators, railroads and shippers to ensure efficient goods movement on port lands and waters • Acquire and develop lands to support current and anticipated port-related operations
	Vancouver Airport Authority	Oversees Vancouver International Airport's operations	<ul style="list-style-type: none"> • Develops and maintains airport infrastructure and oversees day-to-day operations at Vancouver International Airport • Plays active role in the development and growth of air cargo and the Asia Pacific Gateway
Non-Profit Industry and Business Associations	Greater Vancouver Gateway Council	Collaborate to establish a globally competitive Pacific Gateway in trade and travel between North America and the Asia Pacific economies	<ul style="list-style-type: none"> • Advocate for members' interests • Conduct and publish research studies • Provide economic impact data • Support and coordinate application for infrastructure grants
	Greater Vancouver Urban Freight Council	Champion the implementation of the priority actions identified in the Regional Goods Movement Strategy (RGMS)	<ul style="list-style-type: none"> • Advocate for members' interests • Coordinate the implementation of policy recommendations related to goods movement in the region • Monitoring and assessing the progress of RGMS implementation • Periodically reviewing and comparing current priorities against the region's evolving goods movement needs
	BC Trucking Association (BCTA)	Province-wide, non-partisan, non-profit motor carrier association formed to advance the interests of British Columbia motor carriers and associated industrial land owners	<ul style="list-style-type: none"> • Promotes prosperous, safe, efficient and responsible commercial road transportation industry • Conduct research • Advocate for member interests

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Organization		Purpose/Mandate	Roles and Responsibilities related to Industrial Lands
Non-Profit Industry and Business Associations	NAIOP	Non-partisan, non-profit business association formed to advance the interest of commercial land users, developers and real estate industry	<ul style="list-style-type: none"> • Conduct research • Provides education on commercial and industrial development and real estate related issues • Advocate for member interests
	Boards of Trade and Chambers of Commerce	Non-partisan, non-profit business associations formed to advance the interest of their members	<ul style="list-style-type: none"> • Conduct research • Advocate for member interests
	Fraser Basin Council	A charitable non-profit society committed to advancing sustainability in the Fraser Basin and across British Columbia	<ul style="list-style-type: none"> • Conduct and publish research related to environmental and economic sustainability • Preparation of BC Regional Adaptation Collaborative to strengthen regional capacity and increase action to advance adaption planning and implementation related to climate change impacts, including coastal flooding
Private Sector	Railways	Delivers returns on investments by providing fast and reliable transportation for rail and intermodal customers	<ul style="list-style-type: none"> • Provide rail and intermodal services to customers consistent with federal Rail Transportation Acts • Coordinate with local governments on adjacent land use and road networks
	Goods Movers	Deliver returns on investments by providing fast and reliable transportation for their customers	<ul style="list-style-type: none"> • Provide road delivery services to customers consistent with federal, provincial and municipal regulations
	Business	Deliver a return on investment for shareholders or owners	<ul style="list-style-type: none"> • Consume and produce goods an services to support customers and other businesses • Make locational, transportation, investment, real estate, and scheduling decisions to advance business operations

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