

The logo for InterVISTAS, featuring the word "InterVISTAS" in a dark blue sans-serif font. A thin, curved line in shades of green and yellow arches under the text.

InterVISTAS

The logo for URBAN SYSTEMS, with "URBAN" in a bold, red, sans-serif font and "SYSTEMS" in a smaller, dark blue, sans-serif font below it.

URBAN
SYSTEMS

Economic Impact Study of the Critical Shortage of Industrial Land in Metro Vancouver

A stylized, abstract representation of a city skyline. It consists of various rectangular blocks of different heights and shades of blue and green, set against a background of overlapping, semi-transparent circular shapes in similar colors. The overall effect is a modern, geometric interpretation of an urban landscape.

PREPARED FOR
The Greater Vancouver Board of Trade and NAIOP Vancouver

PREPARED BY
InterVISTAS Consulting Inc. with Urban Systems

Executive Summary

Metro Vancouver's Industrial Land Crisis

As a region, Metro Vancouver is geographically constrained and with urban containment boundaries, we are close to exhausting the industrial land supply. The availability of industrial lands is critical to the long-term economic development and growth of the Metro Vancouver area. Our competitive edge in the knowledge economy is to take advantage of nearshoring trends and building value-added production.¹ However, without lands suitable to generate

employment, Metro Vancouver is losing to other regions in economic competitiveness. This critical shortage is already creating significant challenges for local businesses, especially existing warehouse and logistics centres. The Port of Vancouver is Canada's largest port and is the key gateway for Canadian commodity exports to Asia and for consumer and business product imports from Asia to Canada and beyond. Similarly, Vancouver International Airport (YVR) is a gateway to the new economy with rapid access to global trade lanes. Beyond the key transportation gateways in the region, industrial lands are a coveted resource that serve a broad spectrum of industries from manufacturing to research and development. However, in recent years, rising land values and continued growth and expansion of the local, regional and national economies, has resulted in a critical shortage of available industrial land in the Metro Vancouver region, which has resulted in companies either relocating or expanded their operations to outside of British Columbia to Calgary, Washington State and other locales.

Availability of industrial land supply is key to maintaining Metro Vancouver's global economic competitiveness and affordability and will be an important generator of employment.

Over the past decade, demand for industrial space in Metro Vancouver has grown at an exponential pace. This demand has primarily been attributed to a growing population requiring more goods in the region and continued adoption of e-commerce creating a need for more warehouse space to ship goods from. The supply of industrial space has not been able to keep pace with this demand, despite more than 36 million sq ft of industrial space being added to the region over the last 10 years.² The main challenge to solve this key issue is that there is not enough suitable industrial land for development due to a number of factors including difficult site conditions (e.g., land cannot be developed in an easy or cost-effective manner).

What are industrial lands?

It is estimated the Metro Vancouver region needs approximately 250-300 acres of industrial land per annum to support various industrial activities in the region.

Industrial lands are those used for industrial purposes, including warehousing, distribution, manufacturing, processing, local production, and new emerging technology-driven businesses. An important subset of industrial lands are trade-enabling lands – those are lands which support trade flows between Canada and its many trading partners. Generally, trade-enabling industrial lands can have different land use requirements than other industrial uses, namely the size of the parcel of land required and accessibility to major

transportation corridors. There are other users of industrial lands, including e-commerce, agricultural related industrial firms, and film production, which are growing sectors for use of industrial land. All of these have different land size and building requirements, but all are generally competing for scarce available industrial space.

¹ Nearshoring is the practice of transferring a business operation to a nearby country, especially in preference to a more distant one. Source: Oxford Dictionary.

² Source: CBRE

Barriers to Industrial Development in Metro Vancouver Compounding Issues of Land Scarcity

Aside from the lack of available land, there are limitations to further industrial development. metrovancover outlined a number of barriers for the future development of industrial lands in the region in their most recent (2020) Industrial Lands Inventory, including:³

- **Mis-matched land use** (e.g., industrial lands being used for non-industrial purposes)
- **Competing priorities** – given there are general shortages of land (not just industrial), there are a number of competing priorities in the region, including housing development.
- **Long-term protection of industrial lands does not cover all current lands in the inventory.** There are non-protected industrial lands within the inventory, which could be redeveloped for non-industrial use (shrinking the industrial inventory, and potentially impacting other adjacent industrial lands).
- **Lands lacking access to key transportation corridors.** There are parcels of land that may be developed for industrial use but lack access to key transportation corridors. This barrier makes development more difficult and operations inefficient.
- **Land parcels are too small for trade-enabling purposes.** If available parcels are smaller lots, there is a barrier to trade-enabling industrial use (which generally needs large sites) and combined with the barrier of access to transportation infrastructure, this barrier is difficult for private business to invest in development (and thus will locate outside of the Metro Vancouver region). This issue goes beyond trade-enabling purposes, as other forms of industrial face similar issues with larger sites needed for scale of operations and optimal efficiency.

Economic Impact: Industrial Lands in Metro Vancouver

Jobs located on industrial lands in Metro Vancouver are high-paying and high-skilled.

Based on analysis conducted for metrovancover in 2019 with data available from the 2016 Census, there were an estimated 364,100 jobs on industrial lands in the Metro Vancouver region. Over 200,000 (or approximately 55%) of these jobs occur in industrial sectors defined by metrovancover (i.e., production, distribution, repair, public infrastructure & administration and trade-enabling). See **Table ES-1**.

³ metrovancover (2021) Metro Vancouver 2020 Regional Industrial Lands Inventory: Technical Report. Accessed from http://www.metrovancover.org/services/regional-planning/PlanningPublications/Metro_Vancouver_2020_Industrial_Lands_Inventory_Technical_Report.pdf

Table ES-1: Economic Impact of Industrial Lands in Metro Vancouver, All Sectors, 2016

Economic Impact		Impacts in the Region	Impacts in British Columbia	Impacts in Canada
Employment (Jobs)	Direct	364,100	364,100	364,100
	Indirect	88,000	114,000	161,800
	Induced	74,900	96,500	133,700
	Total	527,100	574,600	659,500
Income (\$ Billions)	Direct	\$26.0	\$26.0	\$26.0
	Indirect	\$2.0	\$7.3	\$10.9
	Induced	\$1.1	\$4.9	\$7.3
	Total	\$29.1	\$38.3	\$44.2
GDP (\$ Billions)	Direct	\$31.3	\$31.3	\$31.3
	Indirect	\$9.4	\$12.1	\$18.4
	Induced	\$9.5	\$12.2	\$16.8
	Total	\$50.1	\$55.6	\$66.5
Output (\$ Billions)	Direct	\$60.0	\$60.0	\$60.0
	Indirect	\$17.8	\$23.1	\$36.1
	Induced	\$14.8	\$19.0	\$27.9
	Total	\$92.5	\$102.1	\$124.0

Source: Metro Vancouver Industrial Lands: Economic Impact and Future Importance, 2019.





Note: Prices from the metrovancover report have been re-expressed in 2022 dollars in the table above. Figures are rounded and may not sum.

Economic Impact:

Metro Vancouver’s Ongoing Annual Need of 250-300 acres of Industrial Land

Based on input from the local industrial real estate industry, the total annual need for industrial land in Metro Vancouver is approximately 250-300 acres, of which 80-100 acres would be for trade-enabling activities to support Canada’s supply chains. The economic impact results based on the mid-point of 275 acres of industrial land is displayed in **Table ES-2**. Each year, there is the potential continued job growth in Metro Vancouver occurring on industrial land segments.

Table ES-2: Estimated Economic Activity on 275 Acres of Industrial Lands in Metro Vancouver (in B.C.)

				
Impact	Employment (Jobs)	Wages (\$ Billions)	GDP (\$ Billions)	Output (\$ Billions)
Direct	3,600	\$0.3	\$0.3	\$0.6
Indirect	1,100	\$0.1	\$0.1	\$0.2
Induced	900	\$0.1	\$0.1	\$0.2
Total	5,600	\$0.4	\$0.6	\$1.0

Note: Totals may not sum due to rounding. Monetary values in 2022 dollars.

**Economic Impact:
Metro Vancouver’s Lost Economic Opportunities to Calgary**


Over the past 4.5 years (January 2019 – June 2023), according to industry stakeholders, an estimated 5.1 million sq. ft. (or average of over 1 million sq. ft. per annum) of space has been taken up by firms in Calgary rather than Metro Vancouver. This is an assessment of firms that were actively pursuing new investment in the Metro Vancouver area but instead opted to locate and invest in their operations in Calgary. Metro Vancouver continues to lose ground to Calgary and other locales due to unavailable or unsuitable industrial land options.

Over the past 4.5 years, Metro Vancouver has lost over 5 million sq. ft of industrial land infrastructure development to Calgary → lost employment estimated to be 6,300 jobs.

The economic impact of these lost opportunities to Calgary is estimated to be over 6,300 direct jobs, paying \$477 million wages, generating \$494 million in GDP and \$828 million in economic output. The average salary per job is over \$75,000 per annum, well above the average provincial salary per job of \$54,700.⁴ See **Table ES-1**. The 6,300 jobs lost to Calgary represent lost opportunities for Metro Vancouver residents to be employed in high salary sectors of the economy.

⁴ Statistics Canada. Table 11-10-0239-01 Income of individuals by age group, sex and income source, Canada, provinces and selected census metropolitan areas. 2021 is the most recent data year at the time of report development.

Table ES-1: Economic Impact of Metro Vancouver’s Lost Opportunities to Calgary



Component	Employment Jobs	Wages (\$ Millions)	Value-Added GDP (\$ Millions)	Economic Output (\$ Millions)
Direct	6,320	\$477	\$494	\$828
Indirect	1,580	\$103	\$177	\$325
Induced	1,930	\$102	\$256	\$393
Total	9,840	\$681	\$927	\$1,546

Figures may not sum to totals due to rounding. Monetary impacts are shown in 2022 dollars.

Key Messages

The availability of industrial land supply is key to maintaining Metro Vancouver’s global economic competitiveness and addressing overall affordability in the region. The key takeaways of this study are:

- The shortage of industrial lands is a crisis that has been years in the making with escalating land prices over the past ten years, resulting in low vacancy rates and increasing rental rates.
- Industrial lands in Metro Vancouver make up just 4% of the total land mass in the region. To help address the crisis, immediate action is needed to increase the amount industrial zoned lands in the Metro Vancouver region to support the ongoing annual needs of approximately 250-300 acres per annum and also the backlog of industry needs.
- There are barriers to industrial land development that should be reviewed to enable investment by companies in Metro Vancouver to start or grow their operations. These barriers need to be addressed by different stakeholders including municipal governments and other entities to mitigate investment opportunities from leaving Metro Vancouver.
- The economic impact of industrial lands in Metro Vancouver is considerable. A significant number of Metro Vancouver jobs occur on industrial lands. These jobs are high-paying and require highly skilled talent. Given the shortage of industrial lands in Metro Vancouver, over the past 4.5 years, over 6,300 jobs have been lost to Calgary.

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1 Industrial Lands and Their Impact

1.1 What are Industrial Lands?

There are various forms of land designations in the Metro Vancouver region,⁵ which contribute to determining how lands are ultimately used. Industrial lands are those used for industrial purposes, including warehousing, distribution, manufacturing, processing, local production, and new emerging technology-driven businesses. According to metrovancouver, the definition of industrial lands has been changing over the years with the introduction of new technologies, and on a regional basis the definition has changed as some jurisdictions allow for non-traditional uses on industrial lands (such as large-scale recreational spaces).⁶ Each of these operations has different land and space requirements but are all deemed to be industrial uses. A particularly important subset of industrial lands are trade-enabling lands – those are lands which support trade flows between Canada and its many trading partners. Generally, trade-enabling industrial lands can have different land use requirements than other industrial uses, namely the size of the parcel of land required and accessibility to major transportation corridors. There are other users of industrial lands, including e-commerce, agricultural related industrial firms, and film production, which are growing sectors for use of industrial land. All of these have different land size and building requirements, but all are generally competing for scarce available industrial space.

1.2 The Importance of Industrial Lands

Industrial lands are important to both the region and the Canadian economy as a whole. A recent study completed for metrovancouver outlined the following key messages regarding industrial lands in the region:⁷

- **Industrial lands accommodate a large percentage of all the region’s jobs**
There are over 200,000 direct industrial sector jobs located on industrial lands in the Metro Vancouver region, which is only a portion of the jobs that are located on industrial lands (see **Figure 1-1** for a breakdown). In total (including non-industrial sector jobs), that figure is roughly 364,000 jobs in the region. This is 27% of total jobs (1.3 million) in the region.⁸ In addition to this, according to a recent study from NAIOP, construction investment in the industrial sector in Metro Vancouver contributed to 5,500 direct jobs and 12,100 total jobs (including indirect and induced impacts).⁹
- **Average wages on industrial lands are higher than the regional average**
Businesses located on industrial lands pay on average a wage over 10% higher than the national average. This figure is even higher for trade-enabling businesses.¹⁰

⁵ Throughout the report, Metro Vancouver delineates the region, whereas metrovancouver delineates the regional government entity.

⁶ metrovancouver (2020) Regional Industrial Lands Strategy.

⁷ Metro Vancouver Industrial Lands: Economic Impact and Future Importance (Study completed by InterVISTAS for metrovancouver, February 2019)

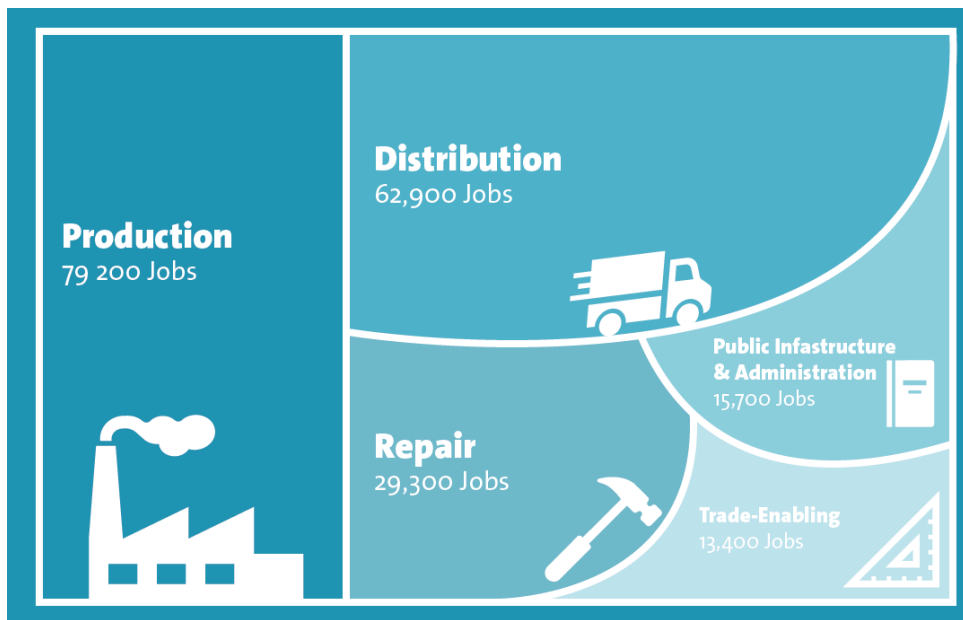
⁸ Ibid.

⁹ NAIOP (2021) Economic Benefits of Commercial Real Estate in Metro Vancouver.

¹⁰ Trade-enabling industrial lands are lands and waters that support goods movement in and out of the region which enable Canada’s trade and support reliable, resilient and efficient supply chains. Uses and activities may include marine terminals, off-dock logistics, and, freight forwarding activities, ideally located with access to transportation infrastructure such as major roads, railways, and/or waterways.

- Industrial lands generate a significant portion of the region’s total Gross Domestic Product (GDP)**
The total GDP impact of industrial lands accounts for 30% of the region’s total GDP.
- Industrial land activities are important for non-industrial sectors throughout the region**
Industrial lands support different sectors that are economically linked. This includes various non-industrial sectors, such as professional services, construction supplies, retail, among others.
- Activities on industrial lands contribute billions in ongoing annual revenue to governments**
There is \$9 billion in direct tax revenue generated from industrial lands, accruing to all levels of government (municipal, provincial, and federal).
- Activities on the region’s industrial lands contribute to economic diversity**
This is important for economic resiliency in the region, as a diversified economy can better weather economic shocks.

Figure 1-1
Direct industrial sector jobs located on industrial lands (excludes indirect and induced jobs) in Metro Vancouver, 2016



Source: Metro Vancouver Industrial Lands: Economic Impact and Future Importance (Study completed by InterVISTAS for metrovancover, February 2019).

In addition to this, there is continued demand for industrial lands in the region, with projections from metrovancover showing that demand will very quickly outpace supply, and total supply of industrial lands would be absorbed between 2035 and 2047 (effective supply would be reached by 2035).¹¹ This is a serious issue in the region, as this unmet demand means that businesses will be forced to locate outside of the Metro Vancouver region, which impacts jobs and economic development in the region, as well as supply chain impacts and contribute to the affordability issue for Canadian consumers. In the worst case scenario, this unmet demand could lead to businesses ending their operations entirely. This is not just an issue of manufacturing, there are a number of sectors which need industrial lands, or supply goods and services for businesses that operate on them. The lack of available industrial land space in the region is having impacts on business currently (limiting growth, jobs, tax revenue, and production to meet consumption needs) and will continue unless more lands are made available for industrial use. As a consequence, this will affect the affordability of everyday goods for Canadian consumers.

1.3 Industrial Trends

Over the past decade, demand for industrial space in Metro Vancouver has grown at a rapid pace. This growing demand is in large part due to a growing population requiring more goods in the region along with the continued adoption of e-commerce creating a need for more warehouse space for the distribution of goods. Supply of industrial space has not been able to keep pace with this demand, despite more than 36 million sq ft of industrial space being added to the region over the last 10 years.¹² These factors have led to a consistent decrease in the vacancy rate and upward pressure on rental rates. The vacancy rate has been below 2% for approximately 5 years and real rental rates have increased 15% per year over the past 5 years (almost doubling).¹³ The main challenge to solve this key issue is that there is not enough suitable industrial land for development due to a number of factors including difficult site conditions (e.g., land cannot be developed in an easy or cost-effective manner).

A subset of industrial lands is trade-enabling; these are in high demand in and around Metro Vancouver and are in short supply. The Port of Vancouver is Canada's largest port and second largest in North America by tonnes of cargo throughput. Finding new lands to support logistics, warehousing, and other light industrial uses is critical to the Port of Vancouver's future health. Several high-level policies and initiatives, including the Ministry of Transportation Pacific Gateway Plan, Metro Vancouver Industrial Land Strategy, CN's Pacific Gateway Initiative, and Vancouver Fraser Port Authority Infrastructure Program, are key strategies that work in parallel to enable the port to grow to accommodate Canada's trade.

This section outlines some critical trends affecting industrial lands, goods movement and logistics warehousing and the lands and industries that support them.

1.3.1 Increasing Cargo and Container Volumes at the Port of Vancouver

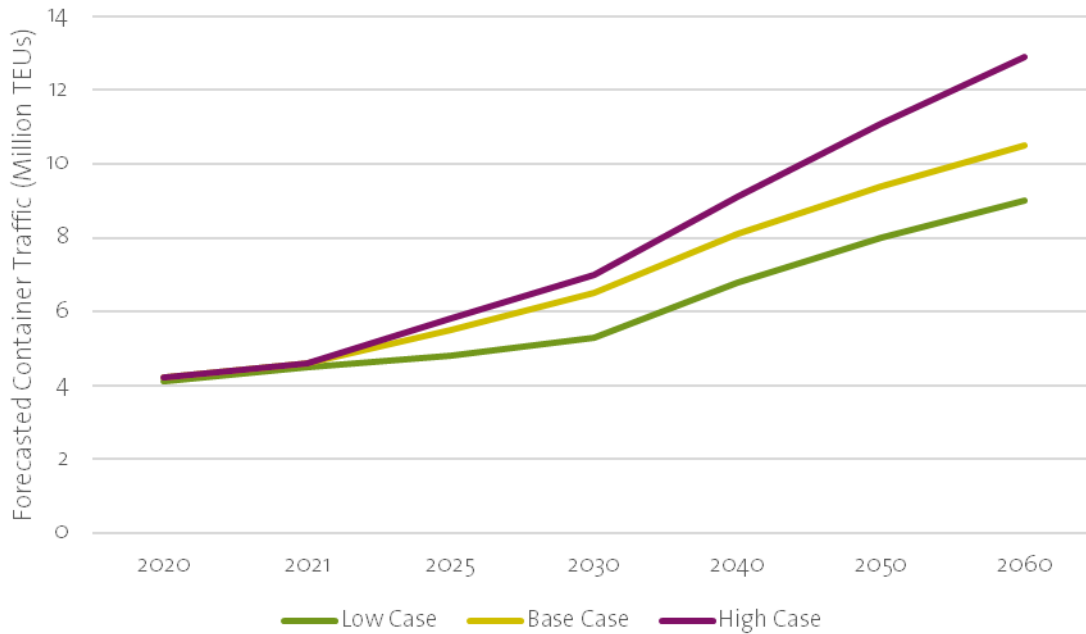
Measured in twenty-foot-equivalent units (TEUs), shipping containers are the standard unit for moving goods around the globe. Global demand for goods has grown drastically, and the Port of Vancouver has seen significant growth in container volumes over the last ten years. The Port of Vancouver is also projected to see an increase in container volumes over the next 30-40 years, as shown in **Figure 1-2**.

¹¹ metrovancover (2020) Regional Industrial Lands Strategy.

¹² Based on data from CBRE

¹³ Based on data from CBRE

Figure 1-2: Container Traffic Forecast for the Port of Vancouver



Source: Vancouver Fraser Port Authority (2021) Vancouver Fraser Port Authority View on Container Forecast Volumes: 2020-2060 Container Forecasts

This growth can be attributed to several factors that include the increasing competitiveness of Canadian ports over American ports, the acceleration of e-commerce during the COVID-19 pandemic and the general trend of companies looking to diversify their supply chains to be less dependant on China in response to rising political tensions. These trends are driving more container traffic to the region. The recently completed Centerm Expansion Project and South Shore Access Project, coupled with projects like Roberts Bank Terminal 2¹⁴ in Delta are being pursued to address long-term capacity requirements. CN is also investing heavily in new infrastructure like sidings, rail cars, and other improvements to increase the capacity of its system.

1.3.2 Types of Demand

The type of uses for industrial sites continues to evolve. Properties that previously were reserved for heavy manufacturing factories now accommodate demand from occupiers in industries such as construction services, film and digital entertainment, arts and culture, manufacturing, and mini storage/warehousing. In response to these new uses, industrial properties have modernized with increased ceiling heights, accommodation for additional parking, significant power capacity and sustainability features. The following section provides a summary of the new types of demand facing the industrial market.

¹⁴ See <https://www.robertsbankterminal2.com/>

Transload and Cross Dock Facilities

Transload facilities are logistics facilities where goods are transferred from one mode of transport to another. Transload activities include moving containers from rail cars to trucks, loading bulk items into containers, and vice versa. According to a report by the Port of Vancouver, the majority of local import traffic (over 50 per cent) is transloaded into domestic containers.¹⁵ Increasing terminal capacity will put additional pressure on the supply chain and generate more need for transload facilities. However, many exporters are reporting a shortage of empty containers as COVID-19 recovery moves ahead in the short term. Transload facilities will be looking for steady sources of empty containers as they look to get Canadian goods to market. In 2022, over 1 million TEUs of empty containers were exported from the Port of Vancouver—a 15 per cent increase from 2021.¹⁶ Canada's largest port experienced a 37 percent decrease in TEUs of imported empty containers—as only 9,235 TEUs of containers out of the total over 1.8 million TEUs inbound were unladen.

Cross-dock facilities are specialized warehouse logistics buildings where products are received in bulk, then consolidated with other products for shipments to common delivery destinations. Cross-docking provides an advantage for manufacturers that ship directly to retailers with little time in between. Cross-docking improves efficiency, reduces the need for long-term warehouse space and reduces the risk associated with inventory storage (i.e., damage, loss, theft, or lifecycle). Ultimately, cross-docking systems reimagine warehouses as facilities where goods move through instead of places where goods are stored, adding speed to the supply chain.

E-logistics / Last Mile / Micro Logistics

The rise of e-commerce has accelerated general consumer expectations related to online retail shopping and associated delivery. This fundamental shift in consumer retail has highlighted a growing need to improve last mile delivery infrastructure in terms of vehicles, technology, warehouse space, and suitable industrial land. Key trends related to the industrial land needs generated by e-commerce include the rise of micro distribution hubs where operators convert spaces within urban environments (i.e., storefronts, parking garages, Class B office space) to small-scale warehousing that can be as small as 600 to 1,000 square feet. These facilities play a crucial role in expediting the delivery of goods and meeting consumer/customer demands. Micro distribution hubs have the potential to reduce emissions as they can encourage the adoption of decarbonized modes of transport for delivery. As demonstrated by the New York Microhubs Pilot, goods are transloaded from large freight vehicles to vehicles producing less emissions (smaller, electric, low-emission) or human-powered modes of transport such as cargo bikes.¹⁷

New Warehouse Forms

The nature of logistics warehousing is changing. The buildings are becoming larger, taller and more efficiently organized. Trends influencing warehouse design offer a glimpse at these future workspaces and reflect the changing nature of the demand itself. Key trends related to the built form of new warehouses include the move to higher ceiling heights 36' to 40', multi-storey warehousing, and sustainable warehousing. Multi-storey warehousing is a design that can alleviate the industrial space shortage as the vertical structures are intended to maximize floor space. A multi-storey warehouse typically has several ramps and access bays for loading and unloading cargo allowing each storey to operate independently.¹⁸ Sustainable warehousing describes a movement to improve logistics buildings' environmental sustainability and emissions performance (electrification, passive systems, blue/green infrastructure, etc.). Demand for sustainable warehouses is anticipated to continue growing while

¹⁵ <https://www.portvancouver.com/wp-content/uploads/2021/03/WSP-container-forecast-final-report.pdf>

¹⁶ <https://www.portvancouver.com/wp-content/uploads/2023/04/2022-Stats-Overview.pdf>

¹⁷ <https://www.nyc.gov/html/dot/downloads/pdf/microhubs-pilot-report.pdf>

¹⁸ <https://constrofacilitator.com/canadas-first-multi-storey-distribution-center-construction-completed/>

associated costs for more sustainable materials are decreasing.¹⁹ Companies can also benefit from lower operating costs associated with reductions in energy consumption and water usage in green buildings.

Manufacturing

Manufacturing is adapting to new technologies, with increased digitization, and now, the rise of artificial intelligence (AI). There is also a trend, following the supply chain issues seen during the COVID-19 pandemic of decentralization of location, which aims to bring production closer to the end-user. This trend means that companies need industrial lands and buildings closer to city-centers which are often in scarce supply. While not a new trend, there is a renewed emphasis on sustainability in manufacturing, from removal of fossil fuels to sources of input products (beyond just the physical warehouse or production facility). Finally, and not specific to the industry, is the trend in skills development for dealing with workforce scarcity (a major issue in many industries post pandemic).²⁰

Film and Digital Entertainment

A growing demand segment is the film and digital entertainment sector, which, in the case of Metro Vancouver and other regions, has been a growing user of industrial space. This sector seeks warehouses and other industrial space that is easily converted for various uses or has enough space for changing sets.

Major names in the industry such as Disney and Netflix are taking up space in the region, competing for the scarce industrial land/buildings available. In 2022, Netflix extended its lease agreement for studio facilities by five years—maintaining a large presence in Metro Vancouver for the foreseeable future.²¹ The COVID-19 pandemic intensified the competition for industrial space as streaming platforms grew and subsequently the need for filming spaces increased.²² With over 2.8 million square feet of stage space in British Columbia, the province has one of the highest concentrations of production facilities in Canada.²³ However, studio space is a small percentage of the total inventory of industrial space in Metro Vancouver—approximately 1 per cent in 2017.²⁴ Production companies and studios are competing with traditional industrial space users as the larger spaces suitable for traditional warehouses often satisfy the size requirements for production. A Colliers report on the industry noted that industrial space used by the sector is a mix of studio construction, conversion of existing buildings, and a number of shorter-term leases of existing industrial space.²⁵ Purpose-built film production facilities in Metro Vancouver are growing with one of Canada's largest under construction in Langley Township and scheduled to open in 2024.²⁶ The industry has grown significantly over the last ten years, with the value of production in British Columbia more than doubling over that period to almost \$3.7 billion.²⁷ The industry will continue to need production space, competing with the more traditional uses of industrial land.

¹⁹ Prologis (2023) <https://www.prologis.com/news-research/global-insights/seven-supply-chain-predictions-2023#P7>

²⁰ Forbes (2023) The Top 5 Manufacturing Trends in 2023

²¹ Dailyhive (2022) (<https://dailyhive.com/vancouver/martini-film-studios-netflix-langley-vancouver>)

²² CBRE (2020) <https://www.cbre.com/insights/articles/lights-camera-action-for-sound-stages>

²³ Creative BC (2022) <https://creativebc.com/services/provincial-film-commission/industry-services/production-infrastructure-resources/stages-studio-facilities/>

²⁴ Colliers Canada (2017) Spark Report: The B.C. Film Industry and Industrial Real Estate <https://www.collierscanada.com/en-ca/research/spark-report-bc-film-industry-industrial>

²⁵ Colliers Canada (2017) Spark Report: The B.C. Film Industry and Industrial Real Estate <https://www.collierscanada.com/en-ca/research/spark-report-bc-film-industry-industrial>

²⁶ Dailyhive (2022) (<https://dailyhive.com/vancouver/martini-film-studios-netflix-langley-vancouver>)

²⁷ Canadian Media Producers Association (2022) Profile 2022 https://cmpa.ca/wp-content/uploads/2023/08/Profile-2022-EN_v4.pdf

Construction Services

As construction services, and construction generally, continues to grow post COVID-19, the industry follows similar trends as manufacturing, with increases in digitization, workforce scarcity, and sustainability initiatives. This means this form of demand looks for industrial space for warehousing, among other purposes.

1.3.3 Other Trends

Different Tenures - Ownership/Leases/Warehousing as a Service

The logistics sector's evolving nature also highlights the need for flexibility in how companies occupy logistics space. High costs have operators looking to find ways to save money on space. Where many companies traditionally may have signed a long-term lease or own logistics space outright, some are now exploring the potential for On-Demand Warehousing, warehousing as a service and different forms of leases. Elastic logistics is the term used to describe the ability to scale operations as needed. The COVID-19 pandemic created a huge surge in online ordering, increasing the demand for logistics space and last-mile services. This approach is most attractive to smaller operators but can be helpful for larger retailers with seasonal changes in demand for their products. However, land ownership is still attractive for larger or long-term operations as it can reduce risks associated with increasing land prices or as part of a logistics space portfolio.

Automation

Warehouse automation is increasingly changing the function and capacity of logistics and warehousing space. Emerging automation technologies can assist with inventory, re-stacking and retrieval, mostly made possible by advancements in robotics. The expansion of automation technologies can have vast impacts on the utilization rates and operating costs of warehouses, including self-driving vehicles that can park themselves, automated storage and retrieval, or automated pallet re-stacking organization. Increasing automation can reduce warehouse operating costs. However, significant numbers of people will still be needed to run, monitor, and manage these systems. Jobs in highly automated warehouses will remain fast-paced, require staff training to make the best use of new technologies, and will be supported by robust warehouse management systems (WMS). However, the up-front costs of automated technologies can be prohibitive even for large companies. One cost component that can be significantly higher is related to site preparation in regions with seismic issues or soft soil (such as Metro Vancouver). This can be a disadvantage to other regions for this type of development. The prohibitive costs have spurred some purveyors of automated systems to offer their products at a reduced upfront cost for a cut of the facility's operating revenue.

1.4 Report Outline

The remainder of this report is outlined as follows:

- Section 2 provides an overview of the status of industrial lands in the region, including best practices for industrial lands in similar regions.
- Section 3 provides a brief introduction to economic impact and details the economic impact methodology used to compute the economic impact of the critical shortage of industrial lands in the region.

- Section 4 summarizes the industrial lands policy review.

2 Industrial Lands in Metro Vancouver

2.1 Current Situation in Metro Vancouver

The following sections outline the trends in industrial lands for Metro Vancouver, including rental rates, land sales, vacancy rates, absorption, and the current inventory of vacant industrial lands in the region. Where available, trend statistics are compared to other major cities in Canada, and coastal cities in the United States.



The Region's Land Shortage Means Cashing-in Might be the Better Business Option

A business representing approximately 25% of container storage in the region was considering selling the business, but in the end sold the land and closed, during one of the worst container imbalances in history. It is a difficult balance between the value of the land and the value of continued operations. The result was the federal government investment of \$4.1 million, to facilitate construction at the site, that was used temporarily for storage for containers in the region.

2.1.1 Industrial Statistics and Comparisons to Other Markets

The issues associated with the industrial land shortage in the Metro Vancouver region are shown clearly in the data compared to other major Canadian cities as well as US and international comparators.

Vacancy and Rental Rates

Vancouver is in a difficult position for growth/future potential compared to other regions across the country and in the United States in terms of industrial lands. Vacancy rates are below 1%, and availability rates are below 2%.²⁸ At the same time, lease rates²⁹ are at an unprecedented high (which has persisted for 12 years), a result of the capacity issues and an inability to source suitable land for large scale development. In real terms, average quarterly lease rates have increased 8% per year since 2010, and 15% per year since 2017, when rates began to steeply increase. While rates have also grown in other markets in the country, particularly throughout the COVID-19 pandemic time period, none have grown to the level of Vancouver. The only compared city with higher lease rates than

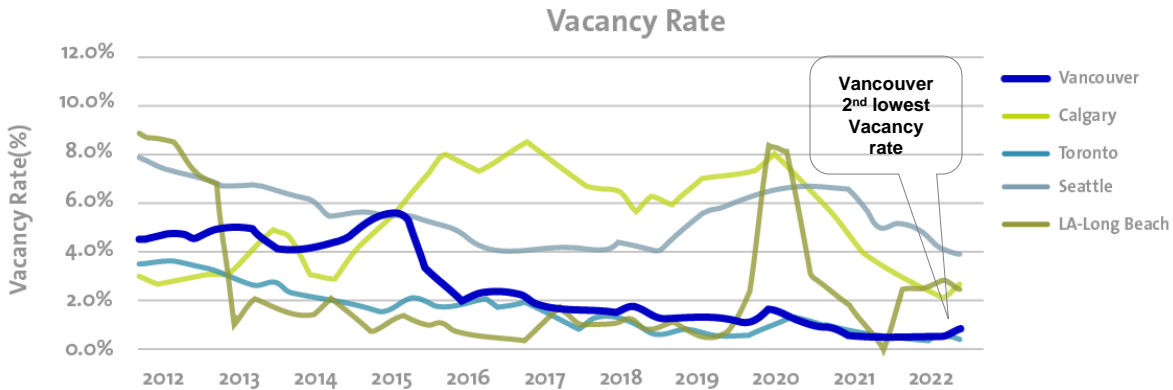
Currently in the Metro Vancouver region, approximately 250-300 acres per annum of industrial land is needed to support various industrial activities in the region.

²⁸ Vacancy rate measures the percent of space that is vacant, while availability rate measures the percent of space that can be made available (e.g., vacant plus potential subleases).

²⁹ As measured by net asking rent. Data provided by CBRE.

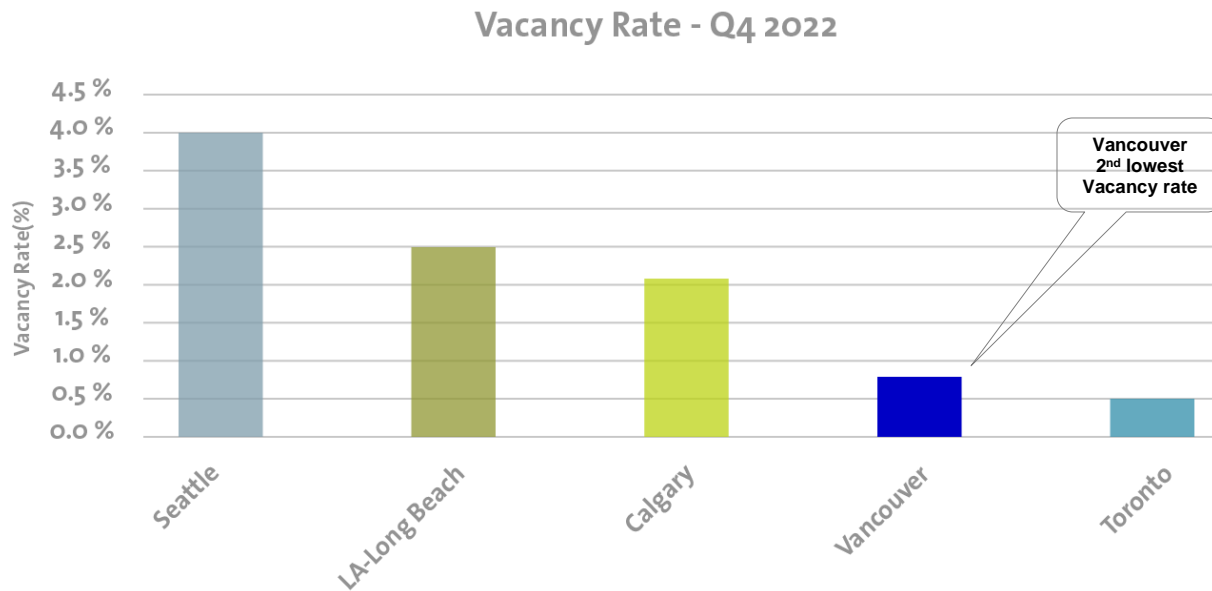
Vancouver (as of the end of 2022) was LA-Long Beach.³⁰ Vancouver has the highest real net asking rent amongst the Canadian cities in the comparator set (see **Figure 2-5**).

Figure 2-1: Vacancy Rate (2010-2022)



Source: CBRE

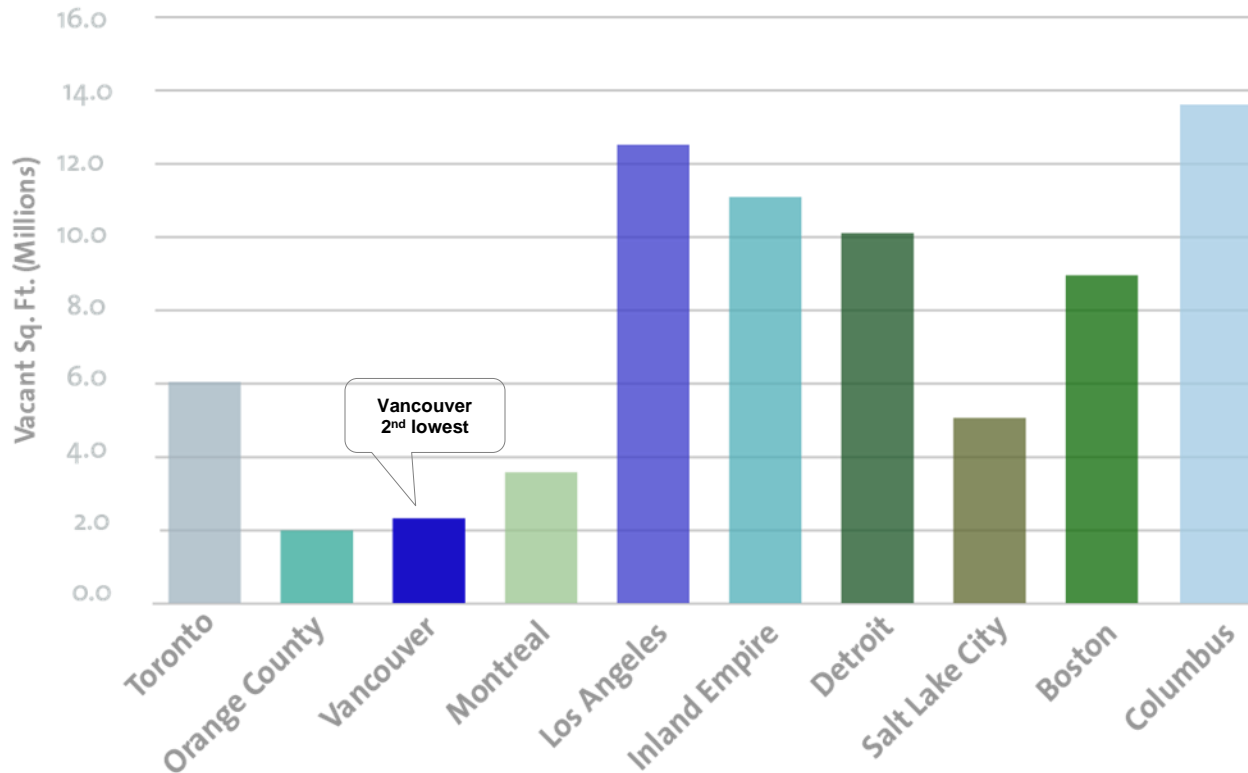
Figure 2-2: Vacancy Rate – Q4 2022



Source: CBRE

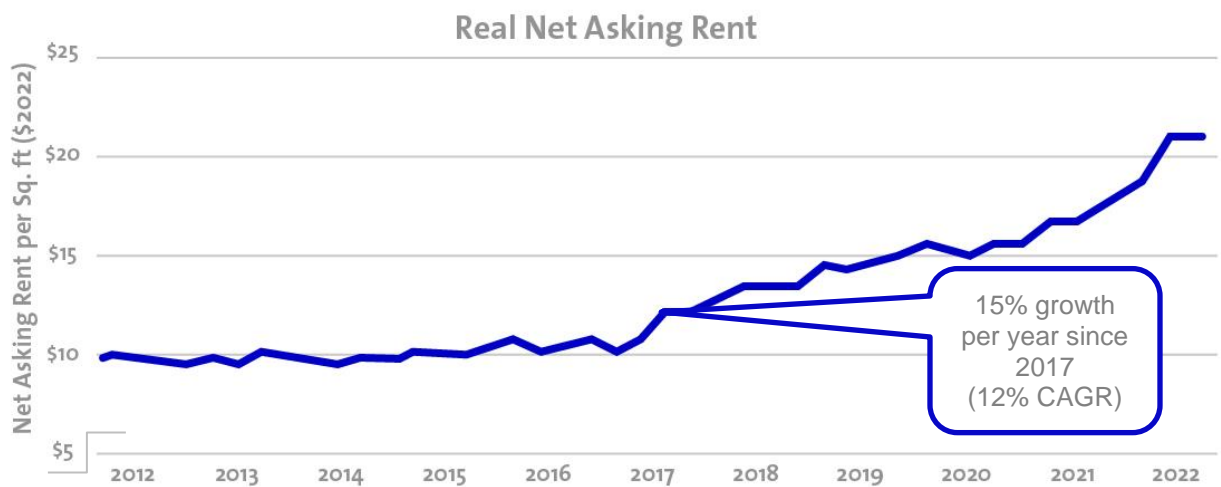
³⁰ For LA-Long Beach, the significant increase in rental rates over the last year is due largely to an incredibly low availability rate/vacancy rate in the area, and the drive for close proximity to port and transportation infrastructure due to the high cost of drayage. Source: CBRE Analysis.

Figure 2-3: Vacant Space – Q1 2023



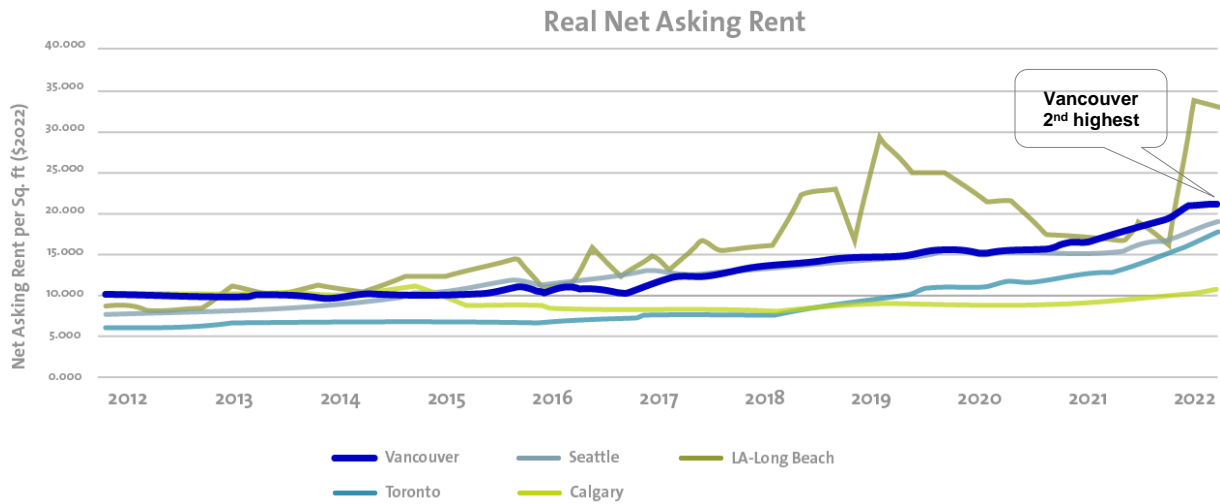
Source: CBRE

Figure 2-4: Historical Lease Rate Growth – Vancouver



Source: CBRE
Note: Axis starts at \$5

Figure 2-5: Historical Real Lease Rate Growth – All Comparators

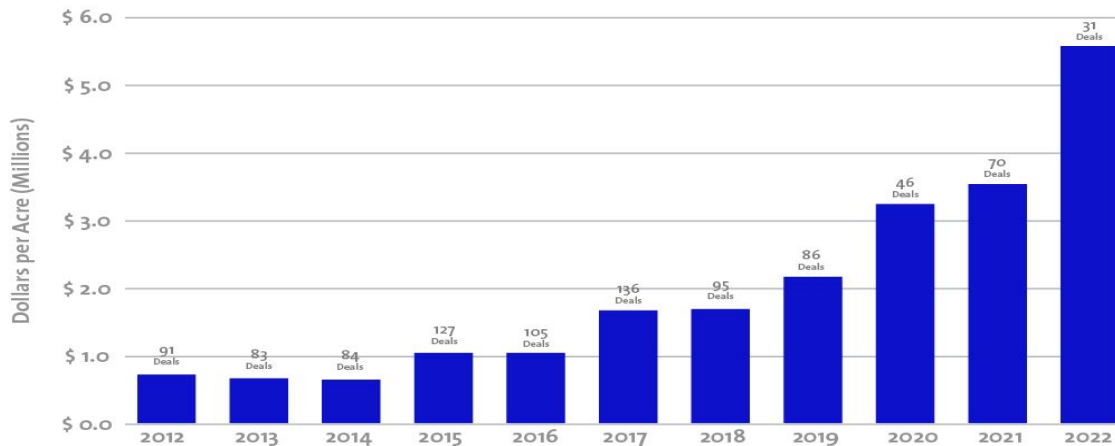


Source: CBRE

Cost of Land

The cost of land in Vancouver has increased significantly, almost tripling over the last 5 years (**Figure 2-6**). And the land scarcity is evident from the steady decrease in the number of sales since 2017 (136 down to 31 in 2022).

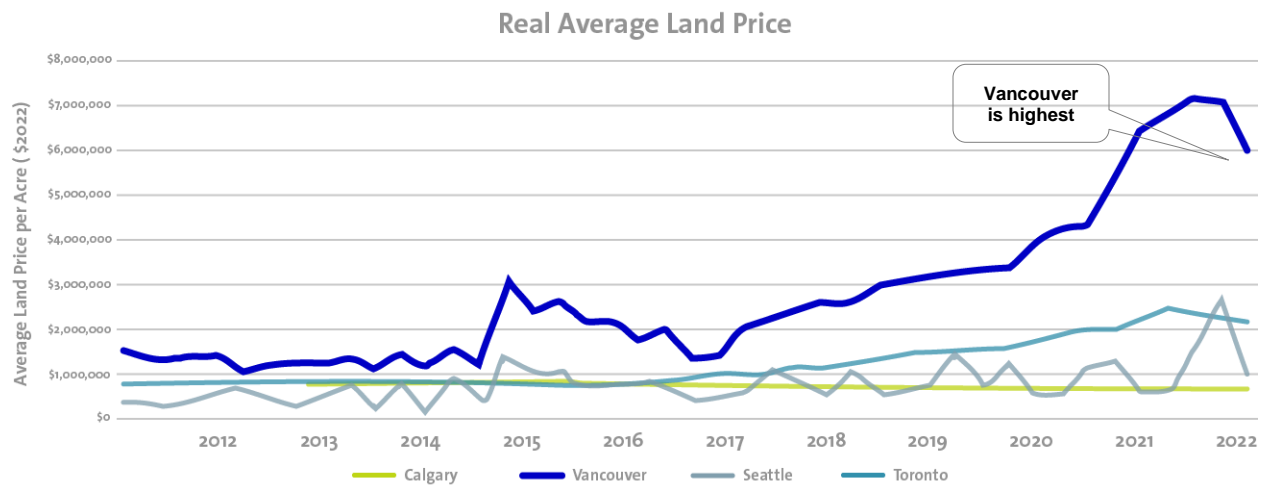
Figure 2-6: Achieved Average Raw Industrial Land Value - Vancouver



Source: CBRE Note: Based on Sales

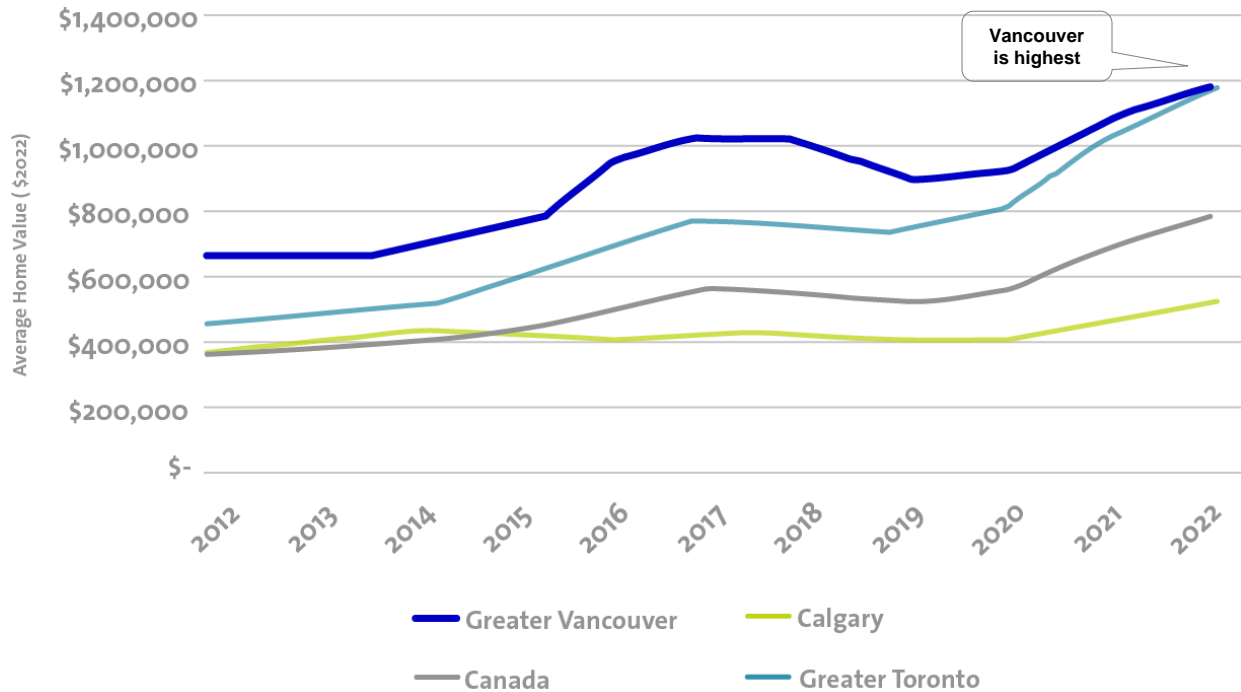
When compared to other cities in the country, Vancouver's average land prices are almost triple comparable cities, with the uptick beginning in 2015. Since 2020 alone, the average land price in Vancouver doubled in real terms (see **Figure 2-7**). Given there is an available land crunch in the Metro Vancouver region, it is also not surprising to see similar issues in the residential real estate market. As shown in **Figure 2-8**, there has been a steady rise in average housing prices in the region, and across the country. Up until 2022, Greater Vancouver had the highest residential housing prices in the country, well above the national average, however the Greater Toronto region has now reached the same level. The upswing in prices in the Metro Vancouver region began in 2015 for both industrial and residential land, both almost tripling in value. There are clearly competing uses for land in the Metro Vancouver, and all land is at a premium in the region.

Figure 2-7: Real Average Industrial Land Price



Source: CBRE

Figure 2-8: Average Residential Benchmark Home Value



Source: Canadian Real Estate Association, The MLS® Home Price Index (HPI)

Space Availability and Absorption

The issues here are not simply due to a lack of adding any new square footage to the supply of industrial space in the region – but not enough space has been added in time to keep up with demand. This is for a variety of reasons, including land price, land availability/suitability, and lengthy approval process, among others. As shown in **Figure 2-10**, net absorption³¹ in the Metro Vancouver region has varied significantly over the past 12 years, although largely positive over the time period. As of Q1 2023, net absorption is around 661,204 sq ft, which is in line with the limited availability and vacancy rates in the region.³² There is a supply and demand imbalance in Metro Vancouver, and in other regions as well (all comparable cities also show a net positive rate).

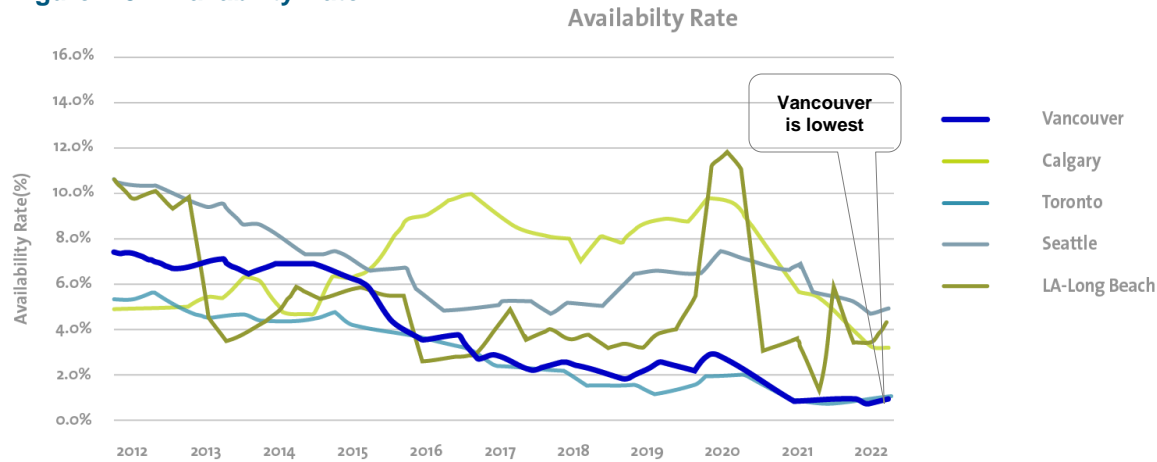
The issues are evident and compounding – as land scarcity increases, prices go up, leading to less development, less new square footage added, and higher lease rates. In the end, these increased costs

³¹ Net absorption is a measure of the change in occupied space. A positive net absorption figure indicates that more space was occupied than made available.

³² CBRE (2023) Vancouver Industrial Figures, Q1 2023

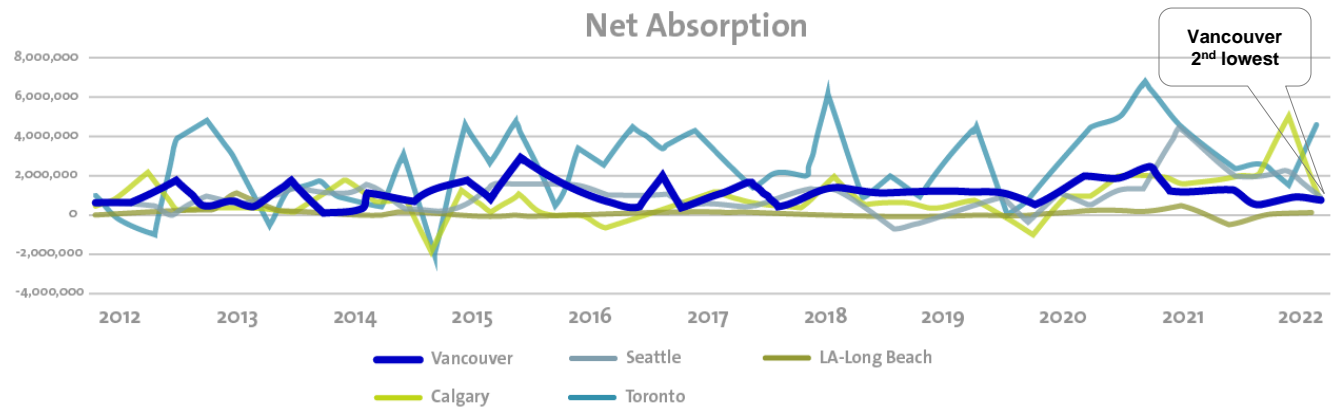
will mean higher costs for customers, as businesses will either have to pay higher prices to stay in the Metro Vancouver region, or locate elsewhere, adding transportation and environmental costs.

Figure 2-9: Availability Rate³³



Source: CBRE

Figure 2-10: Net Absorption



Source: CBRE

CBRE reports on industrial statistics for marine port regions around the world.³⁴ Common amongst the world's major and growing port regions is a lack of available land, increasing rent prices, and new capacity pre-leased before it is completed. In areas such as the UK and Shanghai, vacancy rates are higher than that seen in Vancouver (and other North American port cities). In general, rental rates have been increasing, demand continues to increase (to keep up with the increase in demand for e-commerce

³³ Availability rate is a measure of the currently available (vacant) and soon to be available space (where leases are soon to expire).
³⁴ CBRE (2022) Global Seaport Review

globally), and new space is still being constructed near many ports (however some are land constrained similar to Vancouver). While Vancouver is not alone as a port city facing issues related to land scarcity, there are potential lessons to be learned from how other cities/regions are dealing with these issues.

2.1.2 Market Activity and Trends in Metro Vancouver

The critical shortage of industrial land supply in the Metro Vancouver region, in light of the continued strong demand for industrial lands, has manifested itself through market activity in the region. As shown in **Table 2-1**, total industrial land sales in the region averaged 234 acres per year over the 2019-2022 period, a period high of 309 acres occurred in 2019. The Surrey sub-market accounted for approximately 35% of the region’s industrial land sale volumes over during that timeframe.

Land in Vancouver Lost for Industrial Use
<p>BC Liquor Distribution Board Warehouse – Rupert and Broadway, Vancouver, BC</p> <p>The site of the BC Liquor Distribution Board’s 270,000 sq. ft. original warehouse facility at Rupert and Broadway in Vancouver was sold in 2014 with the intent to convert the area to a large-scale mixed-use redevelopment. The BC Liquor Distribution relocated to a new facility in Delta, but the redevelopment of the original site would be a loss of industrial space in Vancouver and the region broadly.</p>

Table 2-1: Industrial Land Sale Volume by Sub Region (Acres)

Sub Regions	2019 (Acres)	2020 (Acres)	2021 (Acres)	2022 (Acres)	Average (2019-2022) (Acres)
Vancouver	3	3	9	3	5
Burnaby	2	2	3	3	3
Surrey	145	36	53	99	83
Langley	22	39	19	46	32
Delta	17	14	17	37	21
Richmond	18	5	7	23	13
Abbotsford	37	15	33	10	24
Chilliwack	8	6	16	1	8
Regional Market	309	157	229	240	234

Source: Urban Systems Summary of Altus DataStudio Data

Note: Abbotsford and Chilliwack are in the Fraser Valley region, not Metro Vancouver

As shown in **Table 2-2**, the constrained land supply conditions in the region (including the continued use of industrial land for non-industrial development), paired with the continued high demand, has caused astonishing increases in industrial land sale values. Across the regional Vancouver market, per acre industrial land sale values have almost doubled between 2019 and 2022. The low supply and high demand conditions in the region is driving sale prices up and adding pressure to the financial feasibility of development projects in the region, particularly larger format and trade-enabling uses.

Table 2-2: Average Per Acre Industrial Land Sale Prices in the Region

Sub Regions	2019	2020	2021	2022	% Increase (2019-2022)
Vancouver	\$18.5M	\$10.1M	\$13.3M	\$13.6M	-27%
Burnaby	\$1.6M	\$4.5M	\$5.1M	\$8.2M	+ 416%
Surrey	\$2.2M	\$2.7M	\$3.2M	\$4.2M	+ 89%
Langley	\$1.5M	\$2.6M	\$2.8M	\$2.5M	+ 66%
Delta	\$2.6M	\$1.9M	\$2.8M	\$5.4M	+ 106%
Richmond	\$3.3M	\$4.1M	\$4.9M	\$5.6M	+ 73%
Abbotsford	\$1.6M	\$1.9M	\$1.7M	\$4.6M	+ 180%
Chilliwack	\$1.3M	\$1.2M	\$1.9M	\$3.3M	+ 152%
Regional Market	\$2.2M	\$2.7M	\$3.4M	\$4.3M	+ 93%

Source: Urban Systems Summary of Altus DataStudio Data

Note: Abbotsford and Chilliwack are in the Fraser Valley region, not Metro Vancouver

Across the Metro Vancouver region, industrial land sale transaction values averaged \$2.2 million per acre in 2019. In 2022, industrial land sale values rose 93% over 2019 figures, averaging \$4.3 million per acre. Those markets with more significant remaining industrial development capacity (and capacity for larger sites) are naturally more representative of this region-wide level of price escalation – industrial land sale transactions within the City of Surrey averaged \$2.2 million per acre in 2019 but rose to \$4.2 million per acre sold in 2022. Average industrial land sale prices per acre for the most mature, constrained markets, such as the City of Vancouver, need to be interpreted with caution, as the quantity of land sale transactions is very limited.

2.1.3 Inventory of Vacant Land in Metro Vancouver

metrovancover released their 2020 inventory of industrial lands in the region, and it is the most recent inventory of available and occupied industrial lands across the region. The inventory is currently updated every 5 years, which allows for comparison and to see the changes in vacant land over time. In 2020, metrovancover estimates there is 11,502 hectares (28,422 acres) of industrial land in the region, with 2,115 hectares (5,226 acres) (18%) deemed vacant.³⁵ This is a slight increase from the 2015 inventory which was 11,257 hectares (27,817 acres) of industrial land in the region. There are two important factors when considering these estimates. The first is that while vacant, the land may not (and likely is not) suitable for most industrial purposes or could take a number of years to be serviceable. The second issue is that while roughly 605 acres of industrial land have been added to the inventory over 5 years, the previously noted estimated need for industrial land is roughly 250 acres annually (over 5 years, 1250 acres) – reinforcing the vast under supply of industrial land in the region (less than half of demand was met).

While there are vacant lands in the region, a portion is not designated specifically for industrial use, the parcels are not necessarily the right size, and much of the vacant land is not suitable for transportation purposes.

³⁵ Note that metrovancover designates land as Other/Vacant. Source: Metro Vancouver Industrial Lands Inventory (2020)

Table 2-3 shows the change in vacant industrial land in Metro Vancouver between 2015 and 2020. Overall, there is a decrease in the supply of vacant land of 145 hectares (358 acres). However, the impacts vary across the subregions, with some regions having an increase in vacant land, while most saw a decrease in vacant land. In addition, for some sites identified as vacant in the inventory there can be issues of soil conditions and lack of infrastructure, meaning those lands may not be feasible nor suitable for development in the near term.

Table 2-3: Metro Vancouver Industrial Lands Vacant Supply

Sub Regions	Vacant Land (Hectares (acres), 2015)	Vacant Land (Hectares (acres), 2020)	Change in Vacant land (Hectares (acres))
Burnaby / New Westminster	77 (190)	42 (104)	-35 (-86)
Delta / Tsawwassen First Nation	326 (806)	313 (773)	-13 (-32)
Langley	193 (477)	176 (435)	-17 (-42)
North Shore	28 (69)	21 (52)	-7 (-17)
Northeast Sector	36 (89)	56 (138)	20 (49)
Richmond	307 (759)	271 (670)	-36 (-89)
Ridge – Meadows	419 (1,035)	593 (1,465)	174 (430)
Surrey / White Rock	857 (2,118)	616 (1,522)	-241 (-596)
Vancouver	17 (42)	27 (67)	10 (25)
Total	2,260 (5,584)	2,115 (5,226)	-145 (-358)

Source: metrovancover Industrial Lands Inventory (2015, 2020)

As noted in the Metro Vancouver Industrial Lands Inventory, these figures cannot be properly interpreted without further consideration of their respective current land uses, range of site sizes, and locations relative to key transportation infrastructure, all of which are contributing factors to development suitability and market readiness.

It is important to note that the 2020 ‘vacant’ land inventory of 2,115 ha includes a number of regional land use designations, including:

- General Urban – 125 ha or 8% of the vacant inventory, which are intended for a variety of land use types and are “likely to convert to other uses over the long-term, which will most likely lead to erosion of the industrial land base.
- Mixed Employment – 597 ha or 22% of the vacant inventory – These lands offer more flexibility than ‘industrial’ lands and are intended for a range of light industrial, commercial and other employment based lands (including retail-commercial, wholesalers) to serve a growing economy. These lands are more likely to pivot to non-industrial uses over the long term, contributing to further erosion of the industrial land base.
- Industrial – these vacant lands total 1,179 ha or 67% of the quantified inventory of 2,115 ha and are intended for heavy and light industrial activities and related accessory uses.

It is also important to note that this inventory of land supply comprises a broad array of land parcel sizes, many of which are unsuitable for larger-scale manufacturing, research and development, multi-tenant industrial or warehousing and distribution uses. As noted in the Metro Vancouver 2020 Industrial Lands Inventory:

- Site sizes less than 5 hectares: 765 ha or 36% of the vacant land total (across all designations)
- Site sizes 5 to 10 hectares: 380 ha or 18% of the vacant land inventory (across all designations)
- Site sizes of 10 hectares or more: 970 ha or 46% of the inventory (across all designations)

Also noted in the Metro Vancouver 2020 Industrial Lands Inventory, there were a number of industrial land additions and removals across the region between 2015 and 2020, with the following net land additions:

- Regional net lands added vs. removed: 252 ha or 624 acres.
- 72% of these net additional lands were located in Maple Ridge, which should be noted are a significant distance from the region's major transportation networks and goods movement routes, and are therefore unsuitable for many larger scale industrial operators.
- Net of Maple Ridge, total net additions across the region between 2015 and 2020 included 70 ha (173 acres), 87% of which materialized in the Delta submarket.

As noted in section 4 of this report, what would bring more clarity and focus to the discussion surrounding an increasingly constrained industrial land market is a comprehensive look at both the suitability for inventoried lands to meet the needs of a range of industrial market sectors, and the extent of their market readiness to accommodate much-needed new industrial development. The increasingly refined quantitative categorization of industrial land supply across the region is important but needs to be combined with sector-specific suitability assessments in order to properly highlight the challenges facing prospective developers and tenants looking to enter into, or expand within, the regional market.

2.2 The Barriers to Industrial Development

While recognizing the importance of industrial development, there are a number of potential barriers that make industrial development difficult in the region. This section outlines the general industry and academic research on industrial development as well as specific issues in the Metro Vancouver region.

2.2.1 General Barriers to Industrial Development

The academic and industry literature around the barriers to industrial development are quite limited. When researching the topic, the majority of papers written more recently are focused on redeveloping industrial lands for other purposes – brownfield development – and the environmental impacts associated with that redevelopment. This alone is an interesting finding, as it points to the change in use of industrial lands, rather than the preservation for continued industrial use.

Of particular interest is a study from UC-Berkeley, which was part of a larger industrial land and jobs study for the San Francisco Bay Area. Chapple et al. (2017) completed a study looking at the conversion of industrial lands in the San Francisco Bay Area, and the potential for a shortfall in industrial lands in the

region to meet expected demand in 2040.³⁶ Although the findings of the study are that overall there would be sufficient industrially zoned land by 2040, the available land is not ideally located, and there would be a shortfall in the area with the highest demand for industrial lands. Of particular importance from the study for the Metro Vancouver region is the matrix the authors developed, which outlines potential reasons for conversion or preservation of industrial lands for the city to consider. This matrix is shown in **Figure 2-11**, and of interest, the first element focuses on the proximity to transportation, highlighting the importance of location for industrial lands (not just any available land is sufficient). For Metro Vancouver, this matrix provides a number of considerations regarding the need for industrial land and the preservation of industrial. While it is understood that the land scarcity cuts across various land uses, options should be weighed against a number of factors.

Figure 2-11: Reasons for Industrial Land Preservation and Conversion

	← RETAIN AS INDUSTRIAL	CONVERT TO RESIDENTIAL OR MIXED-USE →
Transportation	<ul style="list-style-type: none"> Proximity to freight and/or port facilities Low VMT for workers on industrial land 	<ul style="list-style-type: none"> Proximity to transit High VMT for workers on industrial land
Economy	<ul style="list-style-type: none"> Production or related employment Proximity to business clusters/-suppliers/markets Critical supplier to local businesses Industry stable or growing 	<ul style="list-style-type: none"> High-density non-production employment Proximity to markets/customers Limited linkages to local economy Industry in decline
Equity	<ul style="list-style-type: none"> Offers middle-wage jobs for less-skilled workers 	<ul style="list-style-type: none"> Potential for affordable housing
Land use/zoning compatibility	<ul style="list-style-type: none"> Surrounded by medium/heavy industrial zoning 	<ul style="list-style-type: none"> Adjacent to residential
Environment	<ul style="list-style-type: none"> Brownfield site, remediation infeasible 	<ul style="list-style-type: none"> Environmental health hazard for surrounding communities (especially if historically disadvantaged)
Adequate of supply	<ul style="list-style-type: none"> In areas with projected deficit of industrial land Low vacancy rates for industrial buildings 	<ul style="list-style-type: none"> In areas with projected surplus of industrial buildings High vacancy rates for industrial buildings

Source: Chapple et al. (2017), p. 5

³⁶ Chapple, K., Abdelgany, S., Crispell, M., Ritter, S., and St.-Louis, E. (2017) The Conversion of Industrially Zoned Land. Accessed from https://communityinnovation.berkeley.edu/sites/default/files/the_conversion_of_industrially_zoned_land.pdf?width=1200&height=800&iframe=true



The Industrial Land Shortage Is... Impeding Manufacturing and Innovation Potential

It is well known that the price of land in the Metro Vancouver region is high, so high, that businesses with land are faced with a difficult choice – continue growing their business on the land they have or develop the land for other purposes. An advanced manufacturing and automation company in the lower mainland has faced this issue recently, having over 10 acres of valuable land, aging infrastructure, increasing property taxes, and is surrounded by residential development. The company began looking for other area in the Lower Mainland but was unable to find 10 contiguous acres at a price that made sense for the business. It is difficult to grow and scale manufacturing businesses in the Lower Mainland under these constraints, leading some manufacturers to move their operations elsewhere, and sell/redevelop their land in the region. The company does not yet have an answer to this question, but one is needed soon, potentially leading to the relocation of jobs outside of the lower mainland.

2.2.2 Barriers in Metro Vancouver

In the Metro Vancouver region, aside from the lack of available land, there are limitations to further industrial development. metrovancover outlined a number of considerations for the future development (barriers) of industrial lands in the region in their most recent (2020) Industrial Lands Inventory, including:³⁷

- **Mis-matched land use** (e.g., industrial lands being used for non-industrial purposes)
- **Competing priorities** – given there are general shortages of land (not just industrial), there are a number of competing priorities in the region, including housing development. There can be competing policies as access to major transit and transportation centres can often overlap between industrial use and housing/employment growth in the region,
- **Long-term protection of industrial lands does not cover all current lands in the inventory.** There are non-protected industrial lands within the inventory, which could be redeveloped for non-industrial use (shrinking the industrial inventory, and potentially impacting other adjacent industrial lands).
- **Lands lacking access to key transportation corridors.** There are parcels of land that may be developed for industrial use but lacks access to key transportation corridors. This barrier makes development more difficult and operations inefficient.

³⁷ metrovancover (2021) Metro Vancouver 2020 Regional Industrial Lands Inventory: Technical Report. Accessed from http://www.metrovancover.org/services/regional-planning/PlanningPublications/Metro_Vancouver_2020_Industrial_Lands_Inventory_Technical_Report.pdf

- **Land parcels are too small for trade-enabling purposes.** If available parcels are smaller lots, there is a barrier to trade-enabling industrial use (which generally needs large sites) and combined with the barrier of access to transportation infrastructure, this barrier is difficult for private business to invest in development (and thus will locate outside of the Metro Vancouver region).
 - This issue goes beyond trade-enabling purposes, as other forms of industrial face similar issues with larger sites needed for scale of operations and optimal efficiency.
- **Regulatory Impediments.** There are numerous levels of regulatory oversight, from municipal to provincial and federal regulations around development, environment and land zoning.

The Industrial Land Shortage Is... Forcing Businesses Elsewhere

There are many examples of businesses having to locate or expand operations outside of the Metro Vancouver region due to the industrial land shortage, citing reasons including rent/lease costs, insufficient space requirements and lack of expansion options.



- A local expanding green-tech manufacturer, that chose to invest \$27 million in new, state of the art manufacturing equipment in Calgary (given there was no where available to expand here). This has led to inefficiencies, as products are shipped back to Vancouver via truck for international export through the Port of Vancouver.
- A producer in the animal products industry was forced to move their facilities from the lower mainland as they were not able to find sufficient land to build a new processing facility in the lower mainland. They have instead focused on other provinces and moved jobs to Calgary and elsewhere.
- A vegetable producer operating in Ontario, Quebec and Alberta wanted to expand their operations and move to the lower mainland. They tried many avenues, including working with the BC Ministry of Jobs, Economic Recovery, and Innovation, but was not able to find enough land to set up their operations.
-

2.3 Lessons from Other Jurisdictions

2.3.1 Seattle, Washington

The City of Seattle has an Industrial and Maritime Strategy, which includes stakeholder and community engagement regarding the importance of the industries to the region.³⁸ Seattle's industrial lands are divided into four areas: Ballard and Interbay which are northwest of the city center, and SODO and Georgetown/South Park in the south. The majority of Seattle's industrial lands are in two Manufacturing Industrial Centers (MIC), the Greater Duwamish MIC and the Ballard Interbay North MIC. Approximately 15% of total City employment is located in the Seattle industrial areas, representing about 100,000 jobs.

The City of Seattle Industrial and Maritime Strategy Council was formed in 2019 to develop an industrial and maritime strategy that is holistic and comprehensive in its approach to support these sectors. The council members included city-wide businesses, institutions, councils and other parties which represented four neighborhood councils and a fifth citywide council. A year of consultation produced the Industrial Maritime Strategy Report in 2021, backed by a strong consensus within the Strategy Council.

The Report includes 11 strategies to support the next generation of industrial and maritime jobs, with a key objective to grow the number of living wage jobs, especially for Black, Indigenous, People of Color (BIPOC), youth, and women. To reach this and other objectives, the report recommends strengthening the protections for industrial and maritime lands, where these jobs are located. Further, high-tech and innovative developments are to be encouraged, along with opportunities for small light-industrial businesses, creative arts, and ancillary retail.

2.3.2 Oregon, United States

The state of Oregon has in place an urban growth boundary model, which sets, from a planning perspective, the line in which urban growth and development can occur. This has been in place since the late 1970's for all cities in the state. Portland's urban growth boundary is an example of planning to allow for industrial growth. In 2002, the city's planning process identified the need for more industrial land base, and in 2004 and 2005, more than 2,000 acres of land was added to the boundary to allow for industrial development.³⁹

2.3.3 Sydney Australia

NSW Ports manages Port Botany and Port Kembla, as well as the Enfield Intermodal Logistics Centre and Cooks River Intermodal Terminal. Approximately 65,500 jobs are supported by the NSW ports and industrial lands, including 52,000 supported by Sydney's Port Botany alone. A\$ 13.6 billion is contributed by the ports and industrial lands to the NSW gross state product (GSP).⁴⁰

Following the recommendation by the New South Wales (NSW) Productivity Commission, a review of current industrial land protections in Sydney was conducted in 2021 by the Greater Sydney Commission. The top recommendation of the review was to maximise the productivity of industrial lands over other competing land uses⁴¹

³⁸ City of Seattle (2021) Industrial and Maritime Strategy Council Recommendations, <https://www.seattle.gov/documents/Departments/OPCD/OngoingInitiatives/IndustrialMaritimeStrategy/IndustrialMaritimeStrategyReport2021.pdf>

³⁹ Metro (2023) Urban growth boundary, <https://www.oregonmetro.gov/urban-growth-boundary>

⁴⁰ "2022 Sustainability Strategy", NSW Ports, 2022. <https://www.nswports.com.au/resource/2022-sustainability-strategy>.

⁴¹ "Industrial Lands 'Retain and Manage' Policy Review", Greater Cities Commission, June 2022. https://gsc-public-1.s3-ap-southeast-2.amazonaws.com/s3fs-public/ILPR_findingspaper.pdf.

In 2022 NSW Ports released its sustainability strategy which details four sustainability priorities to ensure continued productivity while also reducing carbon footprint and supporting thriving industries, jobs, and communities on port lands. Further, the Ports identified the seven most important risks and opportunities to focus on to achieve these priorities:

Sustainability Priorities	Interrelated Risks & Opportunities
Steward forecast growth	Navigating shifts in global trade
Champion decarbonisation	Securing key land and transport corridors to optimize the port supply chain
Build resilience	Championing the clean energy transition
Support thriving communities	Building resilience in a changing environment
	Investing in technology to strengthen port capacity and efficiency
	Safeguarding our license to grow
	Creating a safe workspace

Source: NSW Ports (2022) “2022 Sustainability Strategy”

Two key objectives are (1) to achieve full and productive employment and decent work for all women and men, including those with disabilities, with equal pay for equal work, and (2) to promote reconciliation and beneficial relationships with local First Nations communities. To do this they plan to build strong, trusted, and mutually beneficial relationships with the communities on and around port and industrial maritime lands.

NSW Ports is an advocate for the protection of ports, intermodal centres, freight corridors, and industrial lands to support the efficient movement of goods, while also reducing carbon output.

2.3.4 Lessons for Metro Vancouver

In both cases, there was a local recognition of the importance of industrial lands to the region, and the importance of ensuring industrial lands are safeguarded for industrial purposes. In both Seattle and Sydney, there was also a clear tie made to the employment opportunities that industrial lands present, and focusing on how communities can create job opportunities for many parties, including historically underrepresented groups. For Metro Vancouver, this could be an opportunity to create similar job opportunities to support underrepresented groups, or for First Nations participation. As well, there is recognition of the importance of industrial land suitability for close proximity to transportation and labour.

2.4 Comparative Costs of Industrial Development and Operations

Competitive markets with more significant industrial land supply also offer considerable cost advantages relative to the Metro Vancouver region. Relevant comparative cost factors across the Metro Vancouver, Metro Calgary and Washington State (greater Seattle) regions include:

- Industrial land values
- Industrial facility construction costs per sq. ft.
- Industrial facility annual per sq. ft. lease rates

Comparative cost indicators for these key factors and market regions are provided in the following sections.

2.4.1 Industrial Land Values

Across the Metro Vancouver region and based on industrial land sale activity as tracked by Altus Data Studio, industrial land values increased from approximately \$2.2 million per acre in 2019 to \$4.25 million per acre in 2022. This reflects an increase of 93% over 3 years.

More importantly, industrial land values of \$4.25 million per acre are roughly five times those recorded in the Metro Calgary market, with land values for the representative northeast sector recorded by the City of Calgary as follows:⁴²

- 0.23 to 2-acre sites: \$875,000 to \$950,000 per acre
- 2 to 4-acre sites: \$815,000 per acre
- 4 to 10-acre sites: \$685,000 per acre

Industrial land values in the greater Seattle, WA market vary more broadly, as noted by the following illustrative industrial land listings. These indicate values at or well below those in effect in the Metro Calgary market and a small fraction of those being recorded in Metro Vancouver:

- 8004 S. 5th St. – Ridgefield, WA: \$2.47M for 5.33 ac. (\$463,000 per acre)
- 4358 Hannegan Rd. – Bellingham, WA: \$1.89M for 9.4 ac lot (\$201,000 per acre)
- 1400 Prudential Blvd – Longview, WA: \$1.04M for 3.6 ac. (\$289,000 per acre)
- 2891 Bakerview Rd – Irongate Planned Industrial: \$1.98M for 2.67 ac (\$745,000 per acre)
- 715 Riverside Rd. (Everett, WA) – Riverside Industrial Site: \$7.95M for 8.4 ac. (\$947,000 per acre)

2.4.2 Private Sector Industrial Facilities – Costs to Build

There are also significant comparative cost differentials between Metro Vancouver and competitive markets. As noted below in **Table 2-4**, and based on the high range of cost estimate as tracked by Altus

⁴² Source: City of Calgary 2023 Property Assessment – Land Market Trends

Group, a 500,000 sq. ft. industrial building would cost nearly \$93 million to construct in Metro Vancouver – nearly 20% higher than in Metro Calgary (at nearly \$78 million).

Table 2-4: Costs to Build Comparison

Building Type	Metro Vancouver		Metro Calgary	
	<i>Low</i>	<i>High</i>	<i>Low</i>	<i>High</i>
Cost per sq. ft.	\$115	\$185	\$105	\$155
Cost for 500,000 sq. ft. facility	\$57.5M	\$92.5M	\$52.5M	\$77.5M

Source: Altus Group – Canadian Cost Guide 2023

Similar cost guide information for industrial facilities in US markets indicate that the Greater Seattle market, one of the more costly markets in the US, indicate all-in industrial development costs in the range of \$90-100 per sq. ft. US – still well below those driving activity in Metro Vancouver.

2.4.3 Industrial Lease Rates

Industrial tenants also face dramatically different cost profiles across the Metro Vancouver, Metro Calgary and Washington State markets, which directly relate to the extent of new industrial supply, market-wide industrial vacancy and operating costs.

- Metro Vancouver** – Q1 2023 activity showed 8.55 million sq. ft. of industrial floor area under construction, but a market-wide industrial vacancy rate of only 0.6% (availability rate of closer to 1.6%) - well below the 3-4% vacancy rate range in a more balanced market. Constrained industrial supply conditions have driven industrial lease rates across Metro Vancouver to \$22.09 per sq. ft. (base rent) + \$4.48 per sq. ft. in additional rent/operating costs.⁴³
- Metro Calgary** – There were nearly 5.5M sq. ft. under construction in Metro Calgary in Q1 2023 and a market vacancy rate of 1.8% (but much higher availability rate of 8%). Metro Calgary’s average asking industrial lease rate as of Q1 2023 was \$11.25 per sq. ft., + \$4.78 in additional rent. Therefore, total average rent of roughly \$16 per sq. ft. in Calgary is roughly 60% of rent levels in Metro Vancouver.⁴⁴
- Metro Seattle** – As of Q1 2023, there were roughly 13.4 million sq. ft. of industrial space under construction. Market-wide vacancy stood at a more robust 4.0%, with availability of closer to 8.5%. Weighted average asking industrial lease rates in this market (one of the pricier markets in the US) stood at roughly \$12.60 per sq. ft. on an annual basis in early 2023 for warehouse and distribution and roughly \$14.04 per sq. ft. for manufacturing space.⁴⁵

⁴³ Source: Colliers (2023)

⁴⁴ Source: Colliers (2023)

⁴⁵ Source: JLL Research Report

3 The Economic Impact of the Critical Shortage of Industrial Lands

3.1 What is Economic Impact?

Economic activity on industrial lands contributes directly to employment in the region, as well as the provincial and national Gross Domestic Product (GDP) at large.⁴⁶ More importantly, it also acts as an economic catalyst, facilitating the growth of regional businesses and industrial sectors. This takes place through supply chain linkages and inputs to other industries such as materials for the construction sector. The economic contribution of industrial lands, as well as the port, airport and related trade facilitating services is termed the economic impact of industrial lands.⁴⁷

Economic impact is a measure of the spending and employment associated with a sector of the economy, a specific project (such as the construction of a new facility), or a change in government policy or regulation. Economic impact can be measured in various ways. Two of the most popular ways to assess economic impact are in terms of the dollar value of industrial output produced, or in terms of full-time equivalents (FTE) generated.⁴⁸ Other measures are GDP and wages. All of these are used to express the gross level of activity or expenditure from a sector of the economy, a specific project or a change in policy or regulation. These measures can be useful in developing an appreciation of projects, investments and economic sectors.⁴⁹ The different measurements of economic impact, including employment, wages, GDP and economic output are explained below.

3.1.1 Categories of Economic Impact

The three major components of economic impact are *direct, indirect, and induced impacts*, as described below. These distinctions are used as a base for the estimation of the total economic impact of the Metro Vancouver region's industrial lands. Each of these three components requires different tools of analysis. Employment impact analysis determines the economic impact in terms of jobs created and salaries and wages paid.

⁴⁶ GDP is a measure of the value added by labour and capital services used to produce final goods and services, as a result of economic activity in the nation. This measure is net of the value of intermediate goods and services used up to produce the final goods and services.

⁴⁷ This includes all port and airport terminal/building tenants, land tenants, subtenants, and also relevant employment of firms that are located off port/airport and industrial lands.

⁴⁸ A full-time equivalent (FTE) or person year of employment accounts for part-time and seasonal employment.

⁴⁹ Economic impact is different from a cost-benefit analysis that weighs benefits against costs.

Figure 3-1: Measurements of Economic Impact

<p>Employment (Jobs & Full-time Equivalents)</p>	<ul style="list-style-type: none"> • The number of full-time equivalents (FTEs) or person years of employment generated by a particular source. Because certain jobs may only be part-time or seasonal, the number of jobs is generally greater than the number of FTEs.
<p>Wages</p>	<ul style="list-style-type: none"> • The wages, salaries, bonuses, benefits and other remuneration earned by the associated workforce.
<p>Gross Domestic Product (GDP)</p>	<ul style="list-style-type: none"> • A measure of the value added by labour and capital services used to produce final goods and services, as a result of economic activity in the nation. This measure is net of the value of intermediate goods and services used up to produce the final goods and services.
<p>Economic Output</p>	<ul style="list-style-type: none"> • The dollar value of industrial output produced. Sometimes referred to as “economic activity,” it reflects the spending (i.e., capital improvement plus revenue) by firms, organisations and individuals.

Direct Impact

Direct impacts account for the economic activity of the target sector itself. For instance, all employment that is directly related to work that takes place on industrial lands.

Indirect Impact

Indirect impacts are those that result because of the direct impacts. This involves employment in downstream industries that arise from the presence of activity on industrial lands. For instance, indirect employment includes the portion of employment in supplier industries which are dependent on sales to the trucking sector, e.g., firms that provide maintenance for diesel trucks used on industrial lands.

Induced Impact

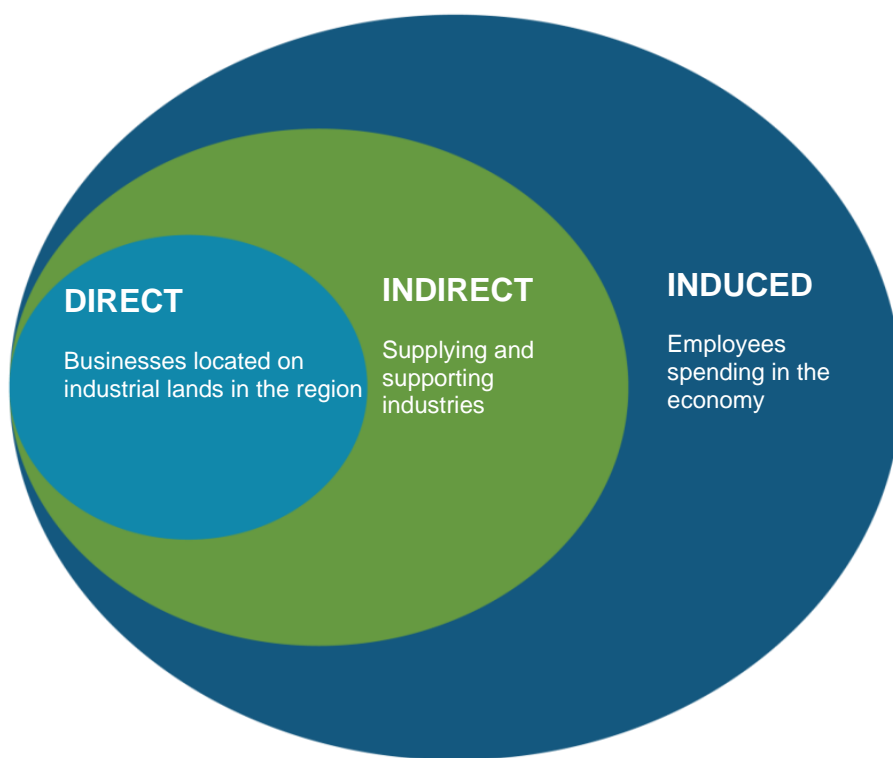
Induced employment is generated from expenditures by individuals employed directly or indirectly. For instance, if a manager at a manufacturing business decides to renovate her home, this would result in

induced employment hours in the general economy as the renovation would support hours of employment in the construction industry, the construction materials industry, etc. Induced impact is often called the “household-spending effect”. Induced impacts are not limited to a specific sector.

Total Impacts

Total impacts are the sum of direct, indirect, and induced effects. These three categories of impacts are summarised below.

Figure 3-2: Categories of Economic Impact Generated and Facilitated by the Region’s Industrial Lands



3.2 Methodology and Approach

In 2019, InterVISTAS completed an economic impact study for metrovancouver, which quantified the economic impact of industrial lands in the region. Those impacts were expressed in 2016 Canadian Dollars. For this study, InterVISTAS is using those results, but with an inflation adjustment to present the data in 2022 Canadian Dollars. The following tables show the key economic impacts results from that study but expressed in current day dollars.

Based on analysis conducted for metrovancouver in 2019 with data available from the 2016 Census, there were an estimated 364,100 jobs that took place on industrial lands in the Metro Vancouver region. Over 200,000 (or approximately 55%) of these jobs occur in industrials sectors defined by metrovancouver (i.e., production, distribution, repair, public infrastructure & administration and trade-

enabling). See **Table 3-1** and **Table 3-2** for the detailed impact results for all sectors and the specific industrial sectors.

Table 3-1: Economic impacts of all sectors located on industrial land in Metro Vancouver

Economic Impact		Impacts in the Region	Impacts in British Columbia	Impacts in Canada
Employment (Jobs)	Direct	364,100	364,100	364,100
	Indirect	88,000	114,000	161,800
	Induced	74,900	96,500	133,700
	Total	527,100	574,600	659,500
Income (\$ Billions)	Direct	\$26.0	\$26.0	\$26.0
	Indirect	\$2.0	\$7.3	\$10.9
	Induced	\$1.1	\$4.9	\$7.3
	Total	\$29.1	\$38.3	\$44.2
GDP (\$ Billions)	Direct	\$31.3	\$31.3	\$31.3
	Indirect	\$9.4	\$12.1	\$18.4
	Induced	\$9.5	\$12.2	\$16.8
	Total	\$50.1	\$55.6	\$66.5
Output (\$ Billions)	Direct	\$60.0	\$60.0	\$60.0
	Indirect	\$17.8	\$23.1	\$36.1
	Induced	\$14.8	\$19.0	\$27.9
	Total	\$92.5	\$102.1	\$124.0

Source: Metro Vancouver Industrial Lands: Economic Impact and Future Importance, 2019.

Note: Prices from the metrovancover report have been re-expressed in 2022 dollars in the table above. Figures are rounded and may not sum.

Table 3-2: Economic impacts of industrial sector employment located on industrial land

Economic Impact		Impacts in the Region	Impacts in British Columbia	Impacts in Canada
Employment (Jobs)	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
Income (\$ Billions)	Direct	\$14.6	\$14.6	\$14.6
	Indirect	\$1.6	\$5.2	\$7.7
	Induced	\$0.8	\$3.2	\$4.8
	Total	\$16.9	\$23.0	\$27.1
GDP (\$ Billions)	Direct	\$20.2	\$20.2	\$20.2
	Indirect	\$6.4	\$8.5	\$13.1
	Induced	\$6.1	\$7.9	\$11.1
	Total	\$32.7	\$36.6	\$44.3
Output (\$ Billions)	Direct	\$41.9	\$41.9	\$41.9
	Indirect	\$12.5	\$16.4	\$26.2
	Induced	\$9.5	\$12.4	\$18.3
	Total	\$63.8	\$70.7	\$86.4

Source: Metro Vancouver Industrial Lands: Economic Impact and Future Importance, 2019.

Note: Prices from the metrovancover report have been re-expressed in 2022 dollars in the table above. Figures are rounded and may not sum.

3.3 Assessment of Metro Vancouver Industrial Land Needs

To assess Metro Vancouver industrial land needs, two approaches were undertaken to estimate the economic impact, as follows:

1. Approach #1:

- Based on local industry input, it is estimated that approximately 250-300 acres of industrial land is needed per annum in Metro Vancouver, of which 80-100 acres is needed for “trade-enabling” activities.

2. Approach #2:

- Based on a benchmark percent industrial land allocation of total land mass in different cities. Currently, industrial lands in Metro Vancouver make up 4% of the region’s total land mass.
- A review of other cities yielded percent shares in the range of 6% to 19%.





- Based on the higher range in other cities, the economic impact of a 1% increase in industrial lands in Metro Vancouver is assessed.

3.3.1 Approach #1:

Estimated Annual Industrial Land Needs in Metro Vancouver

Based on input from the local industrial real estate industry, the total annual need for industrial land in Metro Vancouver is approximately 250-300 acres, of which 80-100 acres would be for trade-enabling activities to support Canada’s supply chain. The economic impact results based on the mid-point of 275 acres of industrial land is displayed in **Table 3-3**.

Table 3-3: Estimated Economic Activity on 275 Acres of Industrial Lands in Metro Vancouver (in B.C.)

				
Impact	Employment (Jobs)	Wages (\$ Billions)	GDP (\$ Billions)	Output (\$ Billions)
Direct	3,600	\$0.3	\$0.3	\$0.6
Indirect	1,100	\$0.1	\$0.1	\$0.2
Induced	900	\$0.1	\$0.1	\$0.2
Total	5,600	\$0.4	\$0.6	\$1.0

Note: Totals may not sum due to rounding. Monetary values in 2022 dollars.

3.3.2 Approach #2:

Economic Impact of 1% Increase in Share in Industrial Lands in Metro Vancouver

In 2020, metrovancover estimated that there was a total of 11,502 hectares (28,422 acres) of industrial land in the Metro Vancouver region, which is approximately 4% of the region’s total land mass. A review of the percentage share of industrial lands of total land mass for selected cities was conducted to compare with the Metro Vancouver ratio. **Table 3-4** displays the research results for various comparator cities. The percentage share of industrial land as a proportion of total land area varies for different cities. The Metro Vancouver region has a relatively low percentage share of industrial lands relative to the region’s total land mass. Additionally, much of the available industrial land in Metro Vancouver are smaller land parcels and not suitable for trade-enabling activities that are required to support goods movement through the national supply chain.

Table 3-4: Industrial Lands Summary for Selected Cities

City/Region	Industrial Land Area (acres)	Total Land Area (acres)	% Share of Industrial Land	Vacancy Rate (%)
Metro Vancouver	28,422	692,177	4%	1.1%
Calgary	17,297	209,817	8%	2.1%
Seattle	1,951	39,024	5%	4.8%
Los Angeles	19,046	238,075	8%	0.6%
Rotterdam, Netherlands	15,253	80,100	19%	2.7%

Source:

1. Metro Vancouver (2015, 2021): metrovancouver (April 2016) 2015 Industrial Lands Inventory Technical Report. metrovancouver (2021) 2020 Industrial Lands Inventory Technical Report.
2. Calgary (2020): <https://www.calgary.ca/planning/industrial-growth-market-analysis.html>
3. Seattle (2017): <https://www.seattle.gov/documents/Departments/OPCD/Demographics/AboutSeattle/Citywide%20Existing%20and%20Future%20Land%20Use%20Report%202017.pdf>
4. Los Angeles (note this is zoned for industrial, but some is used for non-industrial purposes) (2007): https://planning.lacity.org/odocument/f6a208f7-e0d3-4896-a6dc-8cec5fa97d86/attachment_b.pdf
5. Rotterdam, Netherlands (note industrial land is industrial and office) - (2015): <https://opendata.cbs.nl/#/CBS/en/dataset/70262ENG/table>
6. Vacancy rates from CBRE – Vancouver, Calgary, and Seattle Q1 2023, Los Angeles Q2 2022, Rotterdam H1 2022

For illustrative purposes, to support the tight supply of available industrial lands in Metro Vancouver, **Table 3-5** displays the economic impact results of an increase of 1% share of industrial lands in Metro Vancouver which is equivalent to 6,922 acres.

Table 3-5: Estimated Economic Impact of Converting 1% of Metro Vancouver Land into Industrial-Zoned Land

Economic Impact		Impacts in British Columbia	Impacts in Canada
Employment (Jobs)	Direct	79,887	79,887
	Indirect	25,000	35,500
	Induced	21,200	29,300
	Total	126,100	144,700
Income (\$ Billions)	Direct	\$5.7	\$5.7
	Indirect	\$1.6	\$2.4
	Induced	\$1.1	\$1.6
	Total	\$8.4	\$9.7
GDP	Direct	\$6.9	\$6.9





Economic Impact		Impacts in British Columbia	Impacts in Canada
(\$ Billions)	Indirect	\$2.7	\$4.0
	Induced	\$2.7	\$3.7
	Total	\$12.2	\$14.6
Output (\$ Billions)	Direct	\$13.2	\$13.2
	Indirect	\$5.1	\$7.9
	Induced	\$4.2	\$6.1
	Total	\$22.4	\$27.2

Note: Dollar figures expressed in 2022 dollars. Figures are rounded and may not sum to total.

3.3.3 Loss of Development Opportunities to other Jurisdictions

As articulated in the case study examples in this report, local Metro Vancouver companies are leaving the region due to escalating rent/lease costs, insufficient space requirements and a lack of expansion options. Companies looking to establish operations in Western Canada are opting to setup operations in Calgary as a strong alternative to Vancouver, due to lower overall costs, and ample availability of land and transportation options. Firms are utilizing Calgary to build up inventories to support their supply chains. With companies considering Calgary and other locations outside of Metro Vancouver to establish their operations, Metro Vancouver is also losing infrastructure development opportunities to other jurisdictions. By way of an illustrative example, a \$100m investment in infrastructure in B.C. generates nearly 400 direct jobs with each job earning an average wage of nearly \$82,000. Include indirect and induced impacts, over 700 jobs are generated.

Table 3-6: Estimated Economic Activity Related to \$100 Million Infrastructure Investment on Industrial Lands in Metro Vancouver (in B.C.)

				
Impact	Employment (Jobs)	Wages (\$ Millions)	GDP (\$ Millions)	Output (\$ Millions)
Direct	370	\$31	\$46	\$100
Indirect	200	\$15	\$24	\$43
Induced	150	\$8	\$21	\$30
Total	720	\$53	\$91	\$173

Note: Labour Income, GDP and Output are stated in 2022 prices.





3.3.4 Economic Impact of Lost Development Opportunities to Calgary

Over the past 4.5 years, Metro Vancouver has lost over 5 million sq. ft of industrial land infrastructure development to Calgary → lost employment estimated to be 6,300 jobs.

Over the past 4.5 years (2019 – June 2023), according to industry stakeholders, an estimated 5.1 million sq. ft. (or average of over 1 million sq. ft. per annum) of space has been taken up by firms in Calgary rather than Metro Vancouver. This is an assessment of firms that were interested in developing in the Metro Vancouver area; but instead opted to locate and invest in their operations in Calgary. Metro Vancouver continues to lose ground to Calgary and other locales due to unavailable or unsuitable industrial land options.

The economic impact of these lost opportunities to Calgary are estimated to be over 6,300 direct jobs, paying \$477 million wages, generating \$494 million in GDP and \$828 million in economic output. The average wage per job is over \$75,000 per annum, well above the average provincial wage per job of \$54,700.⁵⁰ See **Table 3-7**. These jobs represent lost opportunities for Metro Vancouver residents to be employed in high wage sectors of the economy.

Table 3-7 Economic Impact of Metro Vancouver’s Lost Opportunities to Calgary

				
Component	Employment Jobs	Wages (\$ Millions)	Value-Added GDP (\$ Millions)	Economic Output (\$ Millions)
Direct	6,320	\$477	\$494	\$828
Indirect	1,580	\$103	\$177	\$325
Induced	1,930	\$102	\$256	\$393
Total	9,840	\$681	\$927	\$1,546

Figures may not sum to totals due to rounding. Monetary impacts are shown in 2022 dollars.

⁵⁰ Statistics Canada. Table 11-10-0239-01 Income of individuals by age group, sex and income source, Canada, provinces and selected census metropolitan areas. 2021 is the most recent data year at the time of report development.

3.4 Key Takeaways

Given the constrained land availability in the Metro Vancouver area, which has been a long-term issue, businesses currently operating in the region are assessing their operations and long-term growth ability in the region. As conveyed by the case studies, there are several examples of firms that have opted to move out of the region due to land not being available at competitive price points to expand. Instead, some firms are looking elsewhere and specifically to the Calgary area given the greater availability of land and lower costs overall. New firms looking to serve Western Canada are also looking at Calgary as the key hub in which to serve its customer base.

Consideration may be made to increasing the amount industrial zoned lands in the Metro Vancouver region to support the ongoing annual needs of approximately 250-300 acres per annum.

Industrial lands in Metro Vancouver make up just 4% of the total land mass in the region. This is at a lower level than compared to other cities reviewed. To help alleviate some stress, consideration may be made to increasing the amount industrial zoned lands in the Metro Vancouver region to support the ongoing annual needs of approximately 250-300 acres per annum and also the backlog of industry needs.

4 Industrial Lands Policy Review

4.1 Metro Vancouver Industrial Land Strategy Recommendations

The Metro Vancouver Board approved the finalized Regional Industrial Lands Strategy in July 2020. The Strategy benefited from the guidance provided by the Industrial Land Strategy Task Force, which included elected officials from across Metro Vancouver, various Provincial agencies and crown corporations, the port authority, Agricultural Land Commission and other key societies and groups. The final Strategy also benefited from input gathered at a series of stakeholder workshops conducted throughout the process. Industrial lands accommodate over one-quarter of the region's total employment and play a crucial role in supporting economies at all scales, so the regional industrial land strategy must be able to respond to the challenges facing these lands. There are several opportunities to strengthen the Strategy to provide more tools to local governments and current and future industrial operators to make decisions around industrial land use. This section summarizes the 2020 Regional Industrial Land Strategy and offers a brief analysis of its findings.

4.1.1 Key Challenges Identified

The Strategy identifies four key challenges with respect to industrial land in the region:

1. A constrained land supply

The region's geography and the increasing demand for industrial land are putting additional constraints on the industrial land supply. This is particularly true for lands that require large parcel sizes, access to transportation routes, etc.

2. Pressure on industrial lands

There is competition for land due to the general land constraints in the Lower Mainland. Additional pressure exists to convert industrially designated land to non-industrial uses, particularly multi-family residential.

3. Site and adjacency issues

Available industrial sites lack servicing infrastructure or efficient opportunities to tie into existing utilities. Additionally, industrial development opportunities may be limited depending on the nature of surrounding land uses (i.e., residential or commercial uses sensitive to noise, odours, etc.)

4. Complex jurisdictional environment

Overlapping jurisdictions (i.e., regional and municipal) can sometimes create complex and inconsistent regulatory landscapes.

4.1.2 Potential Improvements

The development of the Metro Vancouver Industrial Land Strategy was a contentious process. The needs of 26 separate municipalities with varying interests, goals and actual access to industrial lands played a role in its development and the policies included in its final form. While the adopted Industrial land

strategy includes some important additions like a draft definition of "trade-oriented industrial land" and categorizing industrial activities, it lacks significant policy direction needed to address the regional industrial land crisis. While the Land Strategy was an important step, there are still issues that need to be urgently addressed:

- **Revisit update schedule**

The Metro Vancouver Industrial Land Strategy is updated on a 5-year interval. However, given the intensity of the industrial land crisis, information is needed more frequently. Local governments and prospective proponents need access to more current information in the region's rapidly evolving market. It is recommended that the Strategy be updated more frequently to ensure data is current. This could be achieved through interim updates to the Strategy every 2 or 3 years.

- **Re-examine formulas for regional voting for land use changes.**

Each municipality has different goals and reserves of industrial land. Some municipalities have more industrial land than others, which can limit other opportunities in those places, and vice versa. There is a need to find a way to balance each jurisdiction's needs while preserving industrial land on the whole. In practice, this manifests as uneven political motivation for change, which may require provincial intervention.

- **Include trade-enabling land as a land use designation and protect land as such.**

Although "Trade-oriented industrial land" was included as a high-level definition, no other policies are in place to designate or preserve space for that use. A designation would help identify and preserve potential sites for trade-enabling industrial use. However, the perception of certain types of industrial land being more valuable than others would need to be balanced, which may imply the expendability of lower-tier industrial lands when seeking compromise.

- **Enrich the Metro Vancouver industrial lands inventory with market readiness / suitability scoring.**

The Metro Vancouver industrial lands inventory should be enhanced to better outline the suitability and market readiness for development of industrial lands across the region. This review would include an assessment of critical success factors (e.g., site size, transportation network connections, proximity to existing industrial clusters) that could assign industrial suitability and developability scores according to their ability to support both general industrial and trade-enabling industrial land uses.

- **Examine land uses currently permitted on industrial lands.**

Current industrial zoning and land use designations are broad, and permit uses that may not be strictly industrial. Currently, permitted land uses like tech parks, recreation (including indoor playgrounds, laser tag etc.), accessory residential units, or self-storage may be better suited to other areas. Industrial land uses, and zones, need to be re-examined to focus on employment-generating activities and core industrial uses, while mitigating conflicts between adjacent land uses.

- **Consider the impacts/challenges of relative development approval timeframes across the region.**

Assess industrial development and approval timelines across regional municipalities and explore means of mitigating/streamlining these approvals given the importance of industrial development in the Lower Mainland.



Prepared by

InterVISTAS Consulting Inc.

1200 West 73rd Avenue
Suite 550
Vancouver, BC V6P 6G5

Telephone: +1-604-717-1800
Facsimile: +1-604-717-1818

www.intervistas.com