



REGIONAL GROWTH STRATEGY IMPLEMENTATION GUIDELINE #5

Metro Vancouver Industrial Land Protection and Intensification Policies

Guideline adopted by the Metro Vancouver Board on October 24, 2014

CONTENTS

1. INTRODUCTION & PURPOSE.....	4
2. SETTING THE CONTEXT FOR <i>METRO 2040</i> INDUSTRIAL LAND POLICIES	5
3. <i>METRO 2040</i> INDUSTRIAL LAND POLICIES	7
4. METRO VANCOUVER ROLES AND ACTIVITIES	9
5. MUNICIPAL RESPONSES TO <i>METRO 2040</i>	10
7. SUMMARY.....	15
APPENDIX 1 - METRO VANCOUVER INDUSTRIAL LAND REFERENCES.....	16
APPENDIX 2 - FACTORS INFLUENCING INDUSTRIAL LAND INTENSIFICATION POTENTIAL.....	17

1. INTRODUCTION & PURPOSE

Industrial lands comprise a substantial amount of the land base in Metro Vancouver, and are an important part of the region's economy. Any changes in industrial land use designations can have regionally significant impacts, including on the region's transportation system and economy. Given the pressure to convert industrial lands to other uses, and the limited size of the current industrial land base, protecting the region's industrial land supply is imperative to accommodate the growing economy and employment base. As such, a key objective of *Metro Vancouver 2040: Shaping our Future (Metro 2040)*, Metro Vancouver's regional growth strategy, is to protect and maximize the effective use of industrial lands in the region (Appendix 1).

Metro 2040 primarily seeks to protect the supply of industrial land through maintaining the amount of land that is designated Industrial. A second, related, strategy is to extend the lifespan of remaining industrial lands through industrial intensification and redevelopment.

Intensification optimizes industrial land potential by allowing sites to achieve higher intensity / density forms of industrial development, facilitates new growth through the re-development of existing under-utilized sites, reduces pressure to convert agricultural and rural lands to industrial uses, and promotes using lands, resources, and infrastructure more efficiently. However, it is important to note that industrial intensification is not a panacea and is not possible in all locations or for all industrial uses/activities (Appendix 2).

Advancing and communicating *Metro 2040* industrial land protection and intensification objectives is integral to the successful implementation of both the regional growth strategy and municipal Official Community Plans. Providing clarity and direction on the kinds of policies and actions by member municipalities, the region, and other agencies and stakeholders to support regional objectives, is also key. This guideline is therefore intended to provide clarity about industrial land objectives, as well as to convey additional information related to how planning policies, market conditions, site locations, industrial sectors, and context influence and nuance the implementation of these objectives. It also provides guidance for member municipalities on how to support the protection and efficient development of industrial land, while also reflecting local contexts and issues, during the preparation of Regional Context Statements.

This guideline is intended to provide clarity about Metro Vancouver's industrial land policy direction. It will assist with:

- implementing *Metro 2040* to advance industrial land protection and intensification;
- developing and reviewing Regional Context Statements (RCS);
- considering regional land use designation amendments; and
- responding to inquiries from municipalities, Port Metro Vancouver, landowners, the development community, and other agencies and groups about industrial lands.

2. SETTING THE CONTEXT FOR METRO 2040 INDUSTRIAL LAND POLICIES

Limited site options and high land prices are already a challenge for industrial businesses wishing to expand or move to the region. The conversion of industrial lands to other uses further reduces the limited supply, thereby driving increasing prices. This situation will continue to worsen over time. Failing to prevent non-industrial uses from encroaching into industrial areas further depletes the supply of industrial land and destabilizes these areas, while low density development does not utilize lands to their full capacity.

INDUSTRIAL LAND INVENTORY AND VIABILITY

A fundamental challenge in the region is the confluence of a strong demand for land due to a growing population and economy, and a limited land supply due to geographic constraints and regulatory measures.

Metro Vancouver's 2010 Industrial Land Inventory includes approximately 11,430 hectares (28,240 acres) of land, three-quarters of which is 'developed' or utilized. The remaining 'vacant' industrial lands are effectively gross areas, and include lands with development constraints, such as environmental features and topography. The net amount of developable land is, as a result, less. Further, not all of the vacant lands are readily available for development in the short-term.

It is important to recognize that not all industrial lands are equally viable or desirable for industrial uses. Many sites are small and/or have specific site constraints, or pre-existing uses which make it difficult to re-develop for more intensive industrial uses. Further, proximity to transportation infrastructure, such as highways and ports, varies, and this access is vitally important for logistics related activities. Additionally, a notable amount of non-industrial activity is occurring on industrial lands, while at the same time, in some other areas there are industrial activities on non-industrial lands.

A 2012 market readiness study estimated that less than 1,900 hectares (4,700 acres) of the vacant industrial land inventory will likely be available for industrial development by 2017.

FORECASTED INDUSTRIAL LAND DEMAND

Demand outstrips supply for industrial land in the region, especially at locations close to port terminals, highway interchanges, and rail yards. Logistics businesses need larger sites and want to be located near transportation infrastructure in order to maximize efficiencies and reduce the number / distance of trips.

Recent industrial land utilization and demand studies anticipate future scenarios for Metro Vancouver's industry development and related industrial land use demand. These scenarios provide a frame of reference for Metro Vancouver land use policy implementation. Using inventories completed for 2005 and 2010, the annual industrial land absorption is estimated at 100 hectares (250 acres). Future demand may be greater under a high growth scenario, such as expanded trade and port facilities.

There are a complex set of factors that affect industrial land supply and demand / absorption rates. The development potential of a significant portion of vacant lands will be hindered by factors such as location, existing uses, accessibility, lot assembly, market considerations, soil conditions, need for pre-loading, or development costs. Land absorption rates will also be affected by the redevelopment of under-utilized properties within developed industrial areas, and the overall vacancy rate of existing industrial buildings.

Based on the current inventory and estimated demand, it is anticipated that the supply of available industrial lands will be substantially depleted in the 2020s. As the vacant land supply continues to diminish, the inventory of adequately sized properties becomes smaller and more scattered before the inventory is exhausted. Thus, the estimate of when the region 'runs out of industrial land' is more accurately described as a serious industrial land shortage, and is dependent on a number of assumptions and variables.

EVOLVING INDUSTRY NEEDS

There is a considerable evolution in the type of industry in our region. Overall, there is an ongoing shift to a more service-based economy. Industrial uses were historically predominant on the waterfront, locations which are now scarce in the region due to conversion to other uses. All indications of future growth identify the importance of logistics and distribution related to the expanding port. This sector already plays a significant role in Metro Vancouver. Distribution and logistics require large flat sites, close to major transportation infrastructure in order to maximize operational efficiencies, resulting in pressure on locations like Delta and Richmond. If industry is unable to find suitable locations within Metro Vancouver, it may choose to (re)locate to other regions, with lost economic, taxation, and employment opportunities for the region.

COMPETING LAND USES

A challenge for *Metro 2040's* goal to protect agricultural land is created by the acquisition of farmland by senior levels of government that are not subject to *Metro 2040's* policies. For example, Port Metro Vancouver, citing that it only has 80 hectares (200 acres) of land remaining for future industrial development, has acquired 70 hectares (175 acres) of land in the last five years through purchase and lease agreements. The Port also cites, based on its current projections, that it will require an additional 900 hectares (2,300 acres) by 2025 to accommodate increases in freight demand.

Another example is illustrated by land in the Agricultural Land Reserve (ALR) used as part of major transportation and infrastructure projects. The South Fraser Perimeter Road with DeltaPort's planned Roberts Bank Terminal 2 expansion and associated Container Capacity Improvement Program, set this part of the region up to be a transportation and distribution hub linking ports and rail yards to global markets.

LAND SPECULATION

Land speculation presents another challenge, and is an issue that is often under-acknowledged in land use plans and policies. It is evident that some industrial lands are owned by developers / investors with an interest in converting these lands to higher value land uses, such as residential or commercial. Similarly, there are agricultural lands which are owned by non-farmers with an interest in converting them to industrial or other uses. The impact of this form of speculation can be to bid up land prices in a certain area, reduce re-investment in the properties, and reduce the likelihood that the lands are used for their designated / zoned purposes.

PUBLIC PERCEPTION

The Greater Vancouver Urban Futures Opinion Survey, a comprehensive survey of public attitudes developed by the late Dr. Walter Hardwick and conducted in 1973, 1990, and most recently 2012, found that there is strong support for protecting agricultural lands from conversion to other uses, but virtually no support for the protection of industrial lands. This survey finding is important in that there seems to be little recognition of the relationship or interplay between the two land uses. When industrial land is lost, there is a consequential greater pressure placed on agricultural land in the region. Additionally, there can be local land use conflicts and tensions between industrial and residential uses.



3. METRO 2040 INDUSTRIAL LAND POLICIES

Metro 2040 protects the region's established industrial land base and advocates for the efficient and intensified use of these industrial lands to accommodate a growing economy servicing both the region and Canada.

REGIONAL LAND USE DESIGNATIONS

A fundamental characteristic of *Metro 2040* is the establishment of six parcel-based regional land use designations. *Metro 2040* requires a regional dialogue and decision if a municipality wants to change a regional land use designation for an industrial site.

To change the land use designation from Industrial or Mixed Employment to a non-Industrial use is a Type 3 amendment to *Metro 2040*, requiring an amendment bylaw that receives a 50%+1 weighted vote, at each reading including adoption, by the GVRD Board. To change the land use designation to Industrial or Mixed Employment from a non-urban land use designation (Rural, Agricultural, or Conservation and Recreation) can either be a Type 3 amendment, or a Type 2 amendment which requires an amendment bylaw that receives a two-thirds weighted vote by the GVRD Board at each reading including adoption and a regional public hearing. (See *Metro 2040* Section 6.3 for details)

The *Metro 2040* land use designations striving to protect the regional supply of industrial lands are defined as follows:

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

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

Mixed Employment areas located outside of Urban Centres and FTDAs are primarily intended for industrial and commercial uses that would not normally be attracted to these locations. Mixed Employment areas

located outside of Urban Centres and FTDAs may contain office and retail uses provided that they are at lower densities than typically higher density Urban Centres and FTDAs and in locations well served by transit or have committed expansions to transit service. Residential uses are not intended in Mixed Employment areas.

Major office and retail developments are directed to Urban Centres and Frequent Transit Development Areas, while most residential development is located on General Urban lands.

INDUSTRIAL LAND PROTECTION OBJECTIVE

All municipalities have collectively agreed, through *Metro 2040*'s adoption, that the conversion of agricultural and industrial lands are regional issues that warrant a regional discussion and decision. *Metro 2040* contains strategies and actions that are instrumental to the protection of industrial and agricultural land uses. For example, a key strategy is to support more intensive and efficient use of industrial lands in an effort to extend the lifespan of the existing industrial land supply, thereby reducing the pressure on agricultural land. Despite this, however, demand outstrips supply for industrial land, especially at locations close to port terminals, highway interchanges, and rail yards. Yet at the same time, *Metro 2040* includes a clear statement that agricultural land will not be considered for another land use as long as it is in the Agricultural Land Reserve (ALR).

INDUSTRIAL LAND INTENSIFICATION OBJECTIVE

Industrial intensification optimizes the industrial land potential by allowing sites to achieve higher density forms of industrial development, and by facilitating new growth through the re-development of existing underutilized sites. Yet these policies must be nuanced to reflect different intensification potential across the region.

The benefits of industrial land intensification include: the opportunity to accommodate increased economic and employment activity on a limited land base, allowing businesses to grow in place, efficient use of lands and resources, reducing impact on the environment, using transportation infrastructure more efficiently, and extending the lifespan of available industrial lands.

It is important to recognize that some industries are land intensive and that not all industries are building-intensive or job-intensive. Accordingly, different measures may be appropriate for different industrial sub-sectors.

Industrial land intensity and density are described differently as follows:

- Industrial lands intensity is the amount of activity on a given amount of land. This can be measured as: jobs per acre / hectare of land, volume of goods produced / processed / stored per unit.
- Industrial lands density is the amount of building on a given amount of land. This can be measured as: floor area ratio, site coverage, building heights.

Often higher intensities are associated with higher densities, but this is not always the case.

Industrial intensification may occur in many different forms; one solution is not appropriate for all types of industrial activities. Responses vary by situation, reflecting different sector needs, site features, location characteristics, building forms, and market readiness. For example, some industrial sectors and locations may intensify through equipment investments or automation, while others may intensify through larger and higher buildings. The challenge is to identify the most viable ways to increase intensities and densities while still providing for industrial sites which meet the needs of users.

Municipalities, landowners and developers can achieve greater industrial density and intensity on industrial lands through a variety of means such as better building designs, greater efficiencies, flexible zoning, and appropriate plans and incentives.

COORDINATING MULTIPLE REGIONAL PLANNING INITIATIVES

Coordinating regional planning initiatives includes the integration of municipal Official Community Plans with *Metro 2040* through Regional Context Statements, as well as working with other agencies, such as Port Metro Vancouver, TransLink, Vancouver International Airport, and the Agricultural Land Commission, to support effective regional planning. The coordination of accepted plans provides the land use and transportation framework to support efficient industrial activities, transportation network, and a growing economy. Further, as municipal Official Community Plans and Regional Context Statements are updated, it is anticipated that additional policies supportive of industrial lands will be developed.

SUPPORTING RESEARCH AND LAND INVENTORIES

The policies must be nuanced to reflect different industrial development potential and industrial user needs in different situations, rather than assume a simple blanket approach for all industrial lands. Metro Vancouver is in the process of updating its Industrial Land Inventory, documenting industrial land intensification potential, and is defining industrial typologies. These critical initiatives provide a much more detailed and nuanced understanding of the land supply in the region in order to inform further policy work and actions to support long term objectives with regards to industrial lands (see Appendix 1 for references).



4. METRO VANCOUVER ROLES AND ACTIVITIES

Metro 2040 includes specific industrial land policies for Metro Vancouver, member municipalities, and other agencies to lead. Most of these roles are collaborative and benefit from working together to develop and share solutions for the region. Metro Vancouver will continue to advance the actions identified as part of its role, while supporting municipalities and other agencies in completing their actions to achieve these shared regional objectives.

Successfully implementing *Metro 2040* requires a combination of planning, regulatory, research, advocacy, and communication roles, which means working with industry and municipalities to advance a clear and consistent message about the importance of industrial land protection and intensification in support of *Metro 2040*, and regional priorities. First, protecting the industrial land base for industrial purposes, and second, improving the capability of these lands to accommodate higher intensity industrial uses.

Regional and municipal plans must recognize relevant development issues and challenges, such as land assembly, site constraints, building design, and operational needs, as these may reduce the amount of developable land or delay re-development. Challenges include balancing the immediate need of ensuring development project viability and business competitiveness with long-term concerns about running out of industrial land.

Metro Vancouver's and municipalities' industrial land work should reflect and push positive market trends towards intensification. As the regional government implementing *Metro 2040*, there are a number of Metro Vancouver led roles and actions (sections 2.1.1 - 2.1.3 and 2.2.1 - 2.2.3), supported through actions and policies by member municipalities, as follows:

Planning

- Protect the industrial land supply to prevent conversion to other uses
- Improve the industrial land supply by addressing barriers to development of key lands, such as site specific constraints, servicing, and access
- Promote development of select sites and sectors by working with industry and municipalities to advance specific areas
- Coordinate plans and initiatives with other regional agencies, such as Port Metro Vancouver and TransLink

Regulatory

- Implement *Metro 2040* through municipal Regional Context Statements, with supportive municipal OCP policies and zoning bylaws

Research

- Conduct research, technical studies, data collection, land inventories, and publications
- Prepare guidelines

Advocacy

- Promote the importance of industrial lands and its contribution to the economy and employment
- Advocate to senior levels of government actions which are supportive of the Metro Vancouver economy

Communication

- Provide information and context about industrial lands in the region and major issues
- Share materials with public and private sector partners
- Encourage industrial land protection and intensification through industry engagement, consultation, industrial land working groups, and other means

5. MUNICIPAL RESPONSES TO METRO 2040

METRO 2040 POLICIES AND MUNICIPAL RESPONSES

The following section provides guidance for municipalities on how to respond through Regional Context Statements to the role assigned to municipalities in relation to the protection and intensification of industrial land. Text from *Metro 2040* is shown in **bold**, followed by guidance for municipal responses.

METRO 2040 STRATEGY 2.2: ACTION 2.2.4 (A, B) – INDUSTRIAL LANDS

2.2.4 a) The role of municipalities is to identify the Industrial areas and their boundaries on a map generally consistent with the Regional Land Use Designations map (Map 2).

Responding to this action:

Clearly show on a parcel-based map within the Regional Context Statement (RCS) the Industrial lands within the municipality consistent with *Metro 2040* land use designation map.

2.2.4 b) i) The role of municipalities is to include policies for Industrial areas which support and protect industrial uses.

Responding to this action:

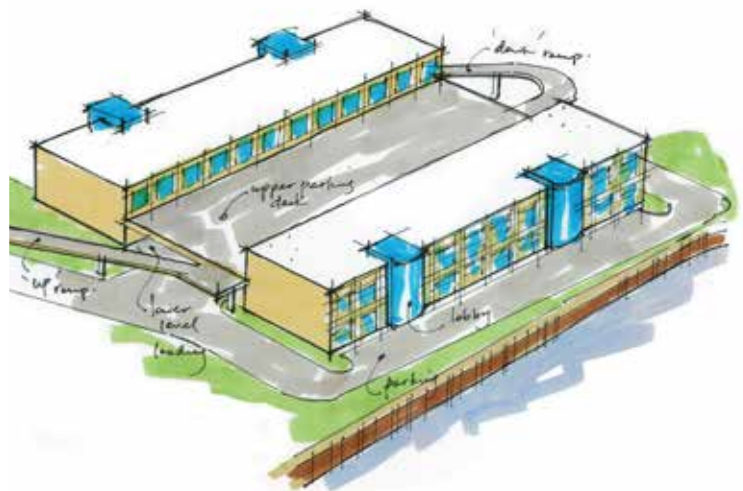
Provide a clear statement that the RCS and OCP support and protect industrial uses in industrial areas, and ensure that zoning bylaws are also supportive of this objective while not allowing for other uses in these areas. This can also include efforts to use industrial lands more efficiently by supporting appropriate redevelopment through, for examples, land assembly or local area plans. These municipal initiatives can be informed through the preparation of Industrial Land Strategies.

2.2.4 b) ii) The role of municipalities is to include policies for Industrial areas which support appropriate accessory uses, including commercial space and caretaker units.

Responding to this action:

Accessory uses can support industrial uses and improve overall business efficiencies. Ideally these accessory uses are directly related to the primary industry use (i.e. the office component of a warehouse facility), although in some cases can be unrelated (i.e. a restaurant servicing local businesses and workers). Allowing an approximate mix of industrial uses is consistent with this objective. This mix can include co-locating related industrial activities.

From a regional planning perspective, it is important to clarify that adding office or retail uses beyond typical accessory levels is generally not supported as it can destabilize the 'true' industrial uses, and, in out of centre locations, is difficult to serve with transit, therefore creating an auto dependent location. However, in some cases, where industrial lands are located near frequent transit service (within 400m of bus or 800m of rapid transit), subject to local considerations, multi-level industrial buildings with industrial uses on the ground floor and some accessory uses (e.g. office or retail) on an upper floor may be appropriate and feasible. In order for this to be supportable, it would have to be done in a way that does not compromise the industrial function of the land and surrounding industrial uses. The municipal zoning bylaw should control uses accordingly.



2.2.4 b) iii) The role of municipalities is to include policies for Industrial areas which exclude uses which are inconsistent with the intent of industrial areas, such as medium and large format retail, residential uses (other than industrial caretaker units where necessary), and stand-alone office uses that are not supportive of industrial activities.

Responding to this action:

Land uses and activities within Industrial areas should be predominantly industrial. As per 2.2.4 b) ii), some related accessory use can support these industrial activities. Other uses, including residential, stand-alone office, and retail, are not appropriate. The only exceptions would be caretaker units, office uses accessory to industrial functions, and small format retail serving local businesses and workforce. The municipal zoning bylaw should control uses accordingly.

2.2.4 b) iv) The role of municipalities is to include policies for Industrial areas which encourage better utilization and intensification of industrial areas for industrial activities.

Responding to this action:

The Official Community Plan should include specific policies on how: 1) barriers to industrial intensification are to be addressed or removed, and 2) what policies are in place or will be put into place to encourage better utilization and intensification of industrial lands for industrial activities. Increased density examples include allowing multi-level buildings and higher ceiling heights, and reduced building setback requirements. Increased intensity examples include: encouraging more shifts of workers, equipment investments, and co-locating related industrial activities. Initiatives can be based on the research and publications by Metro Vancouver on this topic.

METRO 2040 STRATEGY 2.2: ACTION 2.2.4 (C, D, E) – MIXED EMPLOYMENT LANDS

2.2.4 c) The role of municipalities is to identify Mixed Employment areas and their boundaries on a map generally consistent with the Regional Land Use Designations map (Map 2).

Responding to this action:

Clearly show on a parcel-based map within the Regional Context Statement (RCS) the Mixed Employment lands within the municipality consistent with *Metro 2040* land use designation map.

2.2.4 d) i) The role of municipalities is to include policies for Mixed Employment areas which support a mix of industrial, commercial, office and other related employment uses, while maintaining support for established industrial areas, including potential intensification policies for industrial activities, where appropriate.

Responding to this action:

Some industrial activities can co-exist with some commercial activities. In situations where there are existing industrial activities in an area, efforts should be made through municipal plans and policies to retain these industrial activities while allowing, as may be appropriate, other commercial use to develop in the area. In some cases, this can be mixed-use developed (although without any residential component). For some types of industrial and business functions, intensification may be possible and should be encouraged through appropriate municipal initiatives, similar to 2.2.4 b) iv).

2.2.4 d) ii) The role of municipalities is to include policies for Mixed Employment areas which allow large and medium format retail, where appropriate, provided that such development will not undermine the broad objectives of the Regional Growth Strategy.

Responding to this action:

The Mixed Employment designation allows for a wide variety of employment uses, acknowledging in some cases pre-existing uses. Larger format retail and major trip generating uses should be directed to Urban Centres and areas with frequent transit. Any new retail development in Mixed Employment areas should not undermine or significantly detract from the commercial viability of Urban Centres or Frequent Transit Development Areas. All efforts should first be made to try to accommodate such larger format retail uses within Urban Centres or FTDA's.

2.2.4 d iii) The role of municipalities is to include policies for Mixed Employment areas which support the regional objective of concentrating commercial and other major trip-generating uses in Urban Centres and Frequent Transit Development Areas.

Responding to this action:

The Mixed Employment designation allows for a wide variety of employment uses, acknowledging in some cases pre-existing uses. Larger commercial and other major trip generating uses should be directed to Urban Centres and areas with frequent transit. Any new commercial development in Mixed Employment areas should not undermine or significantly detract from the commercial viability of Urban Centres or Frequent Transit Development Areas. All efforts should first be made to try to accommodate such major trip generating uses within Urban Centres or FTDA's. The municipal zoning bylaw should control uses accordingly.

2.2.4 d iv) The role of municipalities is to include policies for Mixed Employment areas which, where Mixed Employment areas are located within Urban Centres or Frequent Transit Development Areas, support higher density commercial development and allow employment and service activities consistent with the intent of Urban Centres or Frequent Transit Development Areas.

Responding to this action:

Mixed Employment lands may be located within Urban Centres and FTDA's overlays. In such cases where frequent transit is available, higher density or intensity forms of mixed employment activities are appropriate. This may include industrial, office, and retail uses built to higher densities or used at greater intensities.

However it is important to note that these uses should still be mixed employment in nature and consistent with the objectives of the Mixed Employment designation, and not introduce uses and scales of uses that are inconsistent with the intent of the designation. Major trip generating uses should be directed to Urban Centres and FTDA's where possible. Residential uses are not intended.

2.2.4 d v) The role of municipalities is to include policies for Mixed Employment areas which allow low density infill / expansion based on currently accepted local plans and policies in Mixed Employment areas and support increases in density only where the Mixed Employment area has transit service or where an expansion of transit service has been identified in TransLink's strategic transportation plans for the planned densities.

Responding to this action:

In areas where there are pre-existing area plans and policies for Mixed Employment lands which allow for greater development or expansion / intensification, these should be recognized and allowed. For Mixed Employment areas with current or proposed transit service (as identified in TransLink's approved plans), higher densities may be appropriate if compatible with surrounding land uses and other context specific considerations.

However, it is important to note that these uses should be mixed employment in nature, and consistent with the objectives of the Mixed Employment designation, and not introduce uses and scales of uses that are inconsistent with the intent of the designation. Major trip generating uses should be directed to Urban Centres and FTDA's where possible. Residential uses are not intended.



2.2.4 d vi) The role of municipalities is to include policies for Mixed Employment areas which exclude residential uses, except for an accessory caretaker unit.

Responding to this action:

Residential uses within commercial and industrial areas can create serious land use conflicts as well as have impacts on land values which can destabilize existing commercial and industrial users. The RCS and references to the OCP, along with provisions in applicable bylaws, should be clear that no residential uses are allowed within Mixed Employment areas. The only exceptions are for limited accessory caretaker units where necessary, and for any preexisting residential uses within Mixed Employment lands. The municipal zoning bylaw should control uses accordingly.

2.2.4 e) The role of municipalities is to include policies which help reduce environmental impacts and promote energy efficiency.

Responding to this action:

The RCS should include references to provisions in the OCP to encourage and support initiatives that reduce environmental impacts and promote energy efficiency. This can be both in the form of the development standards, such as encouraging sustainable building designs and practices, and also through siting uses at appropriate locations that reduce the number of automobile trips and support an efficient transportation system.

METRO 2040 STRATEGY 5.3: GOODS MOVEMENT INFRASTRUCTURE

5.2.3 d) The role of municipalities is to identify policies and actions which support the protection of rail rights-of-way and access points to navigable waterways in order to reserve the potential for goods movement, in consideration of the potential impacts on air quality, habitat and communities.

Responding to this action:

Municipalities should acknowledge the importance of rail ROWS and waterways for certain industrial activities, and include references to specific OCP policies to protect these goods movement transportation corridors, where appropriate.



PROVIDING FOR APPROPRIATE MUNICIPAL FLEXIBILITY

6.2.7) A municipality may include language in its Regional Context Statement that permits amendments to the municipality's Official Community Plan to adjust the boundaries of regional land use designations (or their equivalent Official Community Plan designation) within the Urban Containment Boundary, provided that:

- a) the municipality may re-designate land from one regional land use designation to another regional land use designation, only if the aggregate area of all proximate sites so re-designated does not exceed one hectare;
- b) notwithstanding section 6.2.7 (a), for sites that are three hectares or less, the municipality may re-designate land:
 - from Mixed Employment or Industrial to General Urban land use designation, if the site is located on the edge of an Industrial or Mixed Employment area and the developable portion of the site will be predominantly within 150 metres of an existing or approved rapid transit station on TransLink's Frequent Transit Network; or
 - from Industrial to Mixed Employment land use designation if the developable portion of the site will be predominantly within 250 metres of an existing or approved rapid transit station on TransLink's Frequent Transit Network,

provided that:

- the re-designation does not impede direct rail, waterway, road or highway access for industrial uses; and
- the aggregate area of all proximate sites that are re-designated does not exceed three hectares;

c) the aggregate area of land affected by all re-designations under section 6.2.7 (a) and (b) together cannot exceed two percent of the municipality's total lands within each applicable regional land use designation.

Responding to this provision:

These provisions were included in *Metro 2040* to create some flexibility for municipalities to make small, non-regionally significant adjustments to regional land use designations without requiring GVRD Board approval.

These small, non-regionally significant adjustments do not require an amendment to the Regional Context Statement. Municipalities should, however, notify Metro Vancouver as soon as the Official Community Plan is amended. These adjustments can then be reflected when the RCS is updated and through housekeeping amendments to *Metro 2040*.

For the purposes of qualifying for these provisions, 'predominantly' means that the majority of the developable portion of the site must be located within the noted distance of the rapid transit station.

Rapid transit stations must be existing or approved with funding on TransLink's Frequent Transit Network.

'Proximate sites' is a term meant to clarify that a single 'site' can be made up of several properties. Proximate sites are abutting.

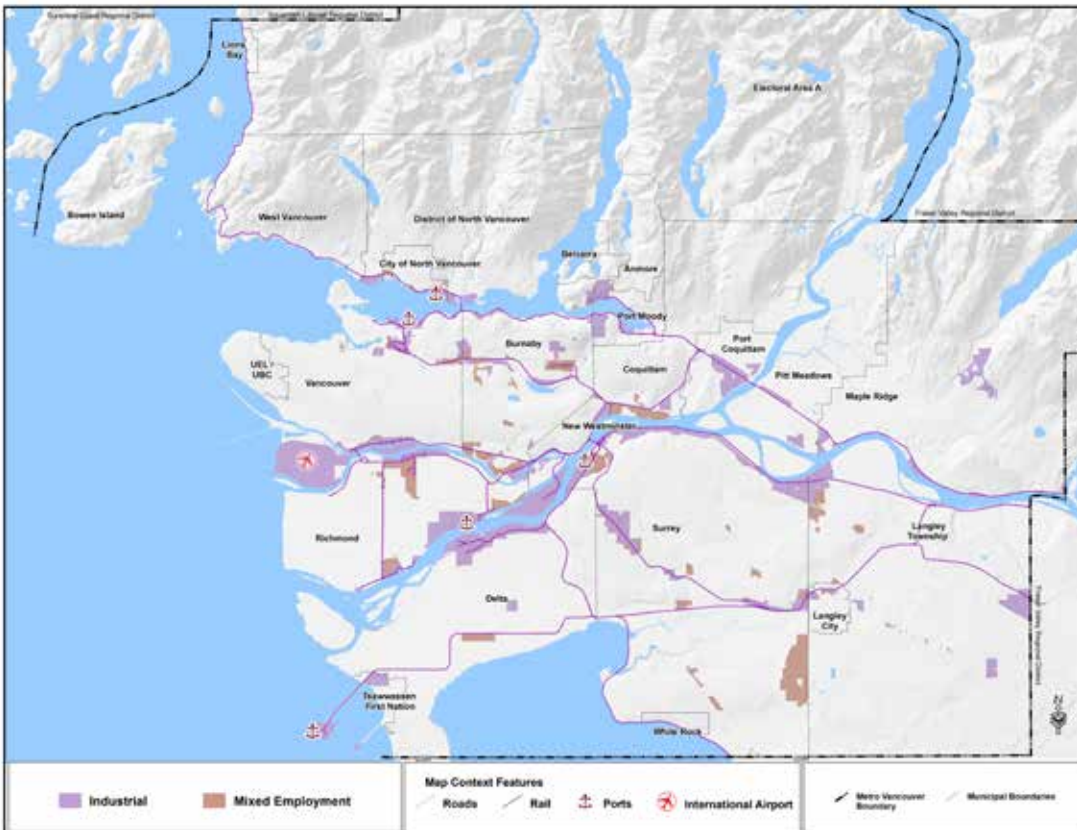
See Metro Vancouver Implementation Guidelines #1 Regional Context Statement Appendix 1 for the amount of land areas designated in the 2011 regional growth strategy.

7. SUMMARY

Industrial lands comprise a substantial amount of the land base in Metro Vancouver, and are an important part of the region's economy. Any changes in industrial land use designations can have regionally significant impacts, including on the region's transportation system and economy.

Advancing and communicating *Metro 2040* industrial land policies is integral to the successful implementation of the regional growth strategy and municipal Official Community Plans. This guideline provides clarity and direction for implementing industrial land protection and intensification policies in the region. Implementation includes establishing a clear definition of industrial intensification for Metro Vancouver and the acknowledgement that intensification efforts and potential will vary by sector, site features, location characteristics, built forms, and market forces (Appendix 2).

Building on past work, further consultation, research, information-sharing, and advocacy will contribute to a better understanding of industrial lands in the region. Metro Vancouver will continue to examine the locations and sectors with the greatest redevelopment and intensification potential, the locations under pressure for conversion to other land uses, specific ways to address the land shortage challenge, and identifying appropriate actions for Metro Vancouver, member municipalities, other agencies, and the private sector.



Regional Growth Strategy - Industrial and Mixed Employment Land Use Designations Map

APPENDIX 1 - METRO VANCOUVER INDUSTRIAL LAND REFERENCES

Metro Vancouver Regional Growth Strategy Website:

www.metrovancouver.org/planning/development/strategy

Metro Vancouver 2040: Shaping Our Future, July 2011 (as amended)

www.metrovancouver.org/planning/development/strategy/RGSDocs/RGSAcceptedbyGVRDBBoardJuly292011.pdf

Metro Vancouver Industrial Lands Website:

www.metrovancouver.org/planning/development/economyindustrialands/Pages/default.aspx

Metro Vancouver 2010 Industrial Land Inventory, November 2011

Monitoring Industrial Land Supply, Utilization and Demand Report, June 2012

Metro Vancouver Industrial Lands Market Readiness Summary, August 2012

Metro Vancouver Best Practices for the Intensive Use of Industrial Land Discussion Paper, October 2012

Summary Report: Opportunities for the Intensive Use of Industrial Land, February 2013

Property Tax Scenario Analysis for Agricultural and Industrial Lands, Colliers, February 2014

Industrial Land Re-Development and Intensification – Constraints and Solutions, Stantec / Site Economics Ltd, December 2013

Higher Density Multi-Level Industrial Building Feasibility Study for Metro Vancouver, February 2013

Industrial Land Intensification Analysis, Eric Vance & Associates, May 2011

NAIOP Analysis of Metro Vancouver's 2012 Market Readiness of Vacant Industrial Lands, June 2013

www.naiopvcr.com/development-issues/news-and-documents-of-interest/

Office Development in Metro Vancouver Urban Centres Discussion Paper, February 2013

www.metrovancouver.org/planning/development/urbancentres




APPENDIX 2 - FACTORS INFLUENCING INDUSTRIAL LAND INTENSIFICATION POTENTIAL

There are many factors that influence industrial intensification potential and form. Broadly, intensification can be through improvements in the following areas:

- **Business Processes** - modifying processes to improve efficiency (e.g. equipment improvements or automation that improve output/throughput)
- **Building Designs** - modifying building design to intensify production (e.g. higher site coverage, higher bay ceilings, or underground parking)
- **Land Uses** - modifying uses to increase efficiency (e.g. co-locating related industrial uses or multi-level buildings, or additional related accessory uses)

Not all industrial lands are of equal value or capacity. The following figure conceptually identifies the potential form(s) or type(s) of intensification, applicable intensity measure(s), applicable sectors, and possible locations.

Figure: Factors Influencing Industrial Intensification Potential

	Forms of Intensification	Intensity Measure	Applicable Sectors	Most Viable Locations
Business Processes Modifying processes to improve efficiency 	Equipment / automation / technology	Throughput / Value of production	<ul style="list-style-type: none"> • Production/Distribution/Repair (PDR) • Warehousing/Logistics • Manufacturing • Port 	Anywhere
	More shift workers	Throughput / Value of production	<ul style="list-style-type: none"> • PDR • Manufacturing • Warehousing/Logistics • Port 	Anywhere
	Other efficiencies: Custom or purpose built for specific business	Dependent on sector and form of intensification	<ul style="list-style-type: none"> • PDR • Warehousing/Logistics • Port 	Anywhere
Building Design Modifying design to intensify production 	Larger buildings	Building size / Site coverage	<ul style="list-style-type: none"> • Warehousing/Logistics 	Highway / port / intermodal yard access
	Higher bay ceilings	Building height	<ul style="list-style-type: none"> • Warehousing/Logistics 	Highway / port / intermodal yard access
	Parking above or below grade	Floor Area Ratio	<ul style="list-style-type: none"> • PDR • Warehousing/Logistics 	High value land with frequent transit
	Multi-level industrial buildings	Floor Area Ratio	<ul style="list-style-type: none"> • PDR 	High value land with frequent transit
Land Uses Modifying uses to increase efficiency 	Co-locating related industrial uses	Throughput / Value of production	<ul style="list-style-type: none"> • PDR • Manufacturing • Warehousing/Logistics 	Anywhere
	Multi-level industrial buildings with additional related accessory uses (i.e. same business)	Throughput / Value added / Jobs per area	<ul style="list-style-type: none"> • PDR • Manufacturing • Warehousing/Logistics 	Within 400 m of frequent transit
	Multi-level industrial buildings with additional unrelated accessory uses (i.e. other businesses)	Throughput / Value added / Jobs per area	<ul style="list-style-type: none"> • PDR 	Within 400 m of frequent transit

There are many factors that influence industrial intensification potential. These include industry sub-sector and business needs, site features, location characteristics, building forms, and market forces. Transportation access is also key to industrial function. This includes proximity to major roads and highways, as well as port and rail facilities, and to frequent transit network (FTN) for commuting employees.

Re-development and intensification may be both in the form of modern conventional buildings and higher intensify/density buildings. As examples, business processes such as equipment / technology automation or more shift work for some sectors can increase production, while building designs such as higher ceilings for logistics warehouses can increase through-put. Higher density buildings or parking above or below grade are only found in select higher value urban areas, often close to frequent transit, and mostly within the production, distribution and repair sectors.

Intensification can occur in stages over time, with some ongoing incremental intensification already happening in different industries. As available vacant land diminishes and land prices increase, one response will be to utilize land more intensely which may mean new and different forms of intensification not yet in common practice in the Metro Vancouver region. However, not all industrial activities can intensify, nor are all forms of intensification the same. Accordingly, intensity should be measured in different ways, as prioritizing a singular measure of intensity may lead to unintended results.

