



To: Regional Planning Committee

From: Jonathan Cote, Deputy General Manager, Regional Planning and Housing Policy
Laurel Cowan, Division Manager, Regional Land Use Policy, Regional Planning and Housing Services

Date: June 23, 2026 Meeting Date: July 2, 2026

Subject: **The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region**

RECOMMENDATION

THAT the MVRD Board:

- a) receive for information the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region”;
 - b) request that the Board Chair forward a copy of the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region” to Member Jurisdictions and TransLink with an offer of a presentation to Council upon request; and
 - c) request that the Board Chair forward a copy of the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region” to the provincial Ministers of Housing and Municipal Affairs, Finance, Transportation and Transit, and Infrastructure, the federal Minister of Housing, Infrastructure and Communities, and the Union of BC Municipalities; and
 - d) direct staff to advance the strategic recommendations outlined in the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region” and report back to the Board with options and potential next steps for consideration.
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EXECUTIVE SUMMARY

This report presents an evidence-based case for advocacy to the provincial and federal governments for sustained, predictable infrastructure funding, and dialogue on new local government funding tools. As the region works to address the need for approximately 570,000 additional homes by 2041, as identified through the Housing Needs Reports prepared by member jurisdictions, understanding the scale of infrastructure investment required to support this growth is critical. The analysis provides a high-level, order of magnitude estimate of infrastructure needs using the replacement cost of existing assets as a proxy for future demand. While not a precise forecast, this approach illustrates the scale of investment required across all orders of government.

The estimated investment requirement translates into a significant per-capita and per-unit housing cost, with responsibility distributed across provincial, regional, and municipal governments is estimated at **\$114.8 billion total over the next 15 years**, equivalent to:

- ~\$80,000 per person; or
- ~\$201,000 per new home
 - \$81,000 for infrastructure delivered by the Province (40%)
 - \$26,000 for infrastructure delivered by Metro Vancouver (13%)
 - \$20,000 for infrastructure delivered by TransLink (10%)
 - \$74,000 for infrastructure delivered by member jurisdictions (37%)

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These findings underscore a structural fiscal challenge. While local and regional governments are responsible for delivering much of the infrastructure needed to support growth, their primary revenue tools, such as property taxes and development cost charges, are limited in their ability to scale with population growth and long-term service demand. By contrast, provincial and federal governments rely on broader-based tax systems that grow more directly with population and economic activity. To address the underlying issues, new funding programs and tools are needed. This report recommends two key steps to advance advocacy:

- Engage in dialogue with the Province and federal government to develop a new infrastructure funding framework; and,
- Conduct additional analysis on potential revenue and financial tools.

PURPOSE

To inform the Regional Planning Committee and MVRD Board of the findings of The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region analysis.

BACKGROUND

Metro 2050, the regional growth strategy, encourages the development of complete communities that are resilient, healthy, and connected to a range of services and amenities. Additionally, policy 1.3.5 states that Metro Vancouver will advocate to the federal government and the Province to ensure that growing communities are served appropriately and in a timely manner with social amenities, health, schools and educational opportunities to avoid inequities in service levels between communities in the region.

At its April 3, 2025 meeting, the Regional Planning Committee received the Regional Housing Needs Report (Reference 1), which consolidates the housing needs of all member jurisdictions to provide a regional estimate of total housing need. In the discussion that followed, Committee members expressed interest in better understanding the corresponding infrastructure investments that would be needed as the region grows and responds to significant housing needs and recent provincial housing legislation. Metro Vancouver staff put together a scope of work (Reference 1) and at the June 2025 MVRD Board meeting, the Board passed the following resolution,

That the MVRD Board endorse the proposed scope of work as presented in the report dated May 6, 2025, titled “Scope of Work – Infrastructure Demand to Support Growth in the Metro Vancouver Region”.

An interim update was provided to the Regional Planning Committee in November 2025 (Reference 3). This report presents the findings from the study.

CONTEXT

Federal and Provincial Infrastructure Funding

Recent federal and provincial infrastructure funding programs represent important contributions toward housing-enabling and community infrastructure. However, these programs do not match the scale of investment required to support long-term population growth and address aging infrastructure, and at times require forfeiting existing local government revenue tools. Infrastructure funding programs are frequently time-limited, highly competitive, and subject to changing program design and cost-sharing requirements, which creates uncertainty and limits the ability of local and regional governments to plan, phase, and finance infrastructure sustainably. As a result, while senior government funding is essential, additional long-term, predictable solutions will be needed to support growth and maintain infrastructure across the Metro Vancouver region.

Revenue Tools Available to Different Levels of Government

An important consideration in this work is that the revenue tools available to local governments (including Metro Vancouver), differ fundamentally from those available to provincial and federal governments in their ability to respond to population growth and infrastructure demand. Local government revenues, such as property taxes and development cost charges, are primarily tied to land values, assessment changes, and development activity. While these tools can help service growth, they do not automatically scale with population growth or ongoing service demand. As a result, rapidly growing communities often rely on their existing tax base to help finance new or expanded infrastructure. While growth is often perceived as fiscally positive due to increased property tax revenue from new units and additional DCC or ACC contributions, this perception is misleading. In practice, property taxes generated by new development rarely cover the full lifecycle costs of the infrastructure required to support that growth, and each new asset adds long-term renewal and replacement liabilities that far exceed the upfront revenues collected.

By contrast, provincial and federal governments have access to broader-based taxation tools, such as income taxes, sales taxes, and business taxes. These revenues generally grow more directly with population, economic activity, and consumption, and therefore tend to scale more effectively as communities grow and service demands increase.

Comparison to Other Studies

It is worth noting that over time, there have been various studies by different organizations exploring the costs of infrastructure per capita, dwelling unit, or community. Recent studies by the Federation of Canadian Municipalities in 2023 (Reference 4) and the Canadian Urban Institute in 2024 (Reference 5) provided infrastructure cost estimates of over \$100,000 per home but emphasize that numbers will vary depending on the types of infrastructure included as well as other factors. These studies focused on local, and sometimes regional scale infrastructure, but did not include provincial level infrastructure as was the case in the Metro Vancouver study. The addition of provincial infrastructure was seen as a critical component to identify all the infrastructure needed to support complete and livable communities.

STUDY OVERVIEW

Approach

Watson & Associates Economists Ltd., a consulting firm specializing in infrastructure costing and municipal finance, undertook the analysis (**Attachment 1**). The work was completed in two main phases and involved engagement with member jurisdictions, TransLink, Metro Vancouver, and the Province.

- **Assessment of current infrastructure:** Existing infrastructure data was compiled across local, regional, and provincial systems through surveys, public data, and asset management documents to estimate a total 'replacement cost' (e.g., the approximate cost to replace existing infrastructure). Where gaps in data existed, assumptions were applied to establish a clear baseline.
- **Estimate of Future Investment Needs:** Per-person/household infrastructure investment requirements were calculated and applied to anticipated new housing units as per the Regional Housing Needs Report to estimate total future infrastructure costs.

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This 'replacement cost' methodology is used where a consistent, scalable estimate is needed across jurisdictions with differing capital planning details, scope, and timing. The results are not intended to support detailed infrastructure planning, but rather to provide an approximate and standardized per-unit metric. While simplified, it is a common approach used by similar studies to produce an order-of-magnitude estimate suitable for advocacy discussions.

Infrastructure Included

The study explored the main elements of infrastructure that support complete and livable communities including:

Local Infrastructure	Regional Infrastructure	Provincial Infrastructure
- Roads and public works – local roads/bridges/tunnels, active transportation, public works facilities, vehicles/equipment - Community services - recreation, cultural, library facilities - Water – storage, pump/lift stations, pipes - Wastewater – storage, pump/lift stations, pipes - Drainage/stormwater – pump stations, ponds, culverts, pipes - Parks and cemetery facilities, land, amenities, vehicles/equipment - Fire and police facilities, vehicles/equipment - Administrative and animal control facilities, parking lots, vehicles/equipment	Metro Vancouver - Regional administrative buildings and operational centres, vehicles/equipment - Water infrastructure- treatment facilities, storage, pump/lift stations, pipes, vehicles/equipment - Wastewater – treatment facilities, storage, pump/lift stations, pipes, vehicles/equipment - Solid waste – regional recycling/waste facilities, a waste-to-energy facility, service vehicles - Regional parks – built assets, trails, vehicles and equipment (but not land value)	- Administrative buildings and facilities - Provincial roads and bridges - Public Education – kindergarten and elementary schools, secondary schools, post-secondary schools - Hydro plants, power projects, distribution and transmission lines, substations - Hospital and public health facilities - Long-term care facilities - Childcare facilities - Emergency services – ground and air ambulances, support vehicles, ground stations - Court service facilities
	TransLink regional transit infrastructure, facilities, and vehicles	

Limitations and Exclusions

This study intended to provide a high-level estimate of growth-related infrastructure needs across the region, but was limited by scope, data availability, and resource constraints. Key assumptions, exclusions, and limitations include:

Key Assumptions

- Current infrastructure service levels and targets are assumed to continue into the future.
- Where municipal data was unavailable, estimates were based on population and per-capita averages from other municipalities. Data was available for municipalities representing approximately 79% of the regional population.

- **Not included in the analysis:**
 - Existing infrastructure deficits (e.g., assets in poor condition or insufficient capacity, including unmet service targets)
 - Other new, significant infrastructure costs driven by regulation (such as wastewater treatment requirements or seismic requirements)
 - Lifecycle (asset replacement) costs
 - Operating, staffing, and programming costs
 - Municipal capital grants (e.g., affordable housing, sustainability, childcare, recreation, heritage)
 - Infrastructure outside the categories covered in this report (e.g., public health clinics, public or non-profit housing, homeless shelters)
 - Flood protection infrastructure (e.g., dikes, levees)
 - Land values for undeveloped regional parkland
 - Municipal energy facilities, including district energy systems and local utilities
 - UBCx Skytrain project

TransLink

- Public transit infrastructure is inherently more complex and dynamic than other sectors because it is not just infrastructure, it is a constantly evolving service system, shaped by demand, policy objectives, and funding decisions that guide significant future expansion, not just asset replacement. In addition to replacement costs of existing infrastructure, TransLink has also identified \$28.4 billion in unfunded capital projects in the *Access for Everyone* plan to address future growth needs and increase existing service levels, representing priorities over the next 10-15 years from the Regional Transportation Strategy, *Transport 2050*. To better represent anticipated transit investment needs over the coming years, this study incorporates both the value of existing capital assets and the capital estimates identified in the *Access for Everyone* plan. The estimated costs to households is the same for existing and new households.

Order of Magnitude Only

- The analysis is based on applying average, region-wide estimates of infrastructure *replacement* costs to projected growth, and is intended to provide an order-of-magnitude estimate of total investment required. It should not be interpreted as a precise estimate of infrastructure needs by asset class or service area. Infrastructure requirements will vary significantly based on existing capacity, service levels, growth patterns, timing, and local conditions. Further, data was provided from a variety of sources that may be dated or underestimate the true cost of replacing an asset. More detailed, service-specific infrastructure planning, asset management analysis, and engineering studies would be required to accurately determine capital needs at a project or system level.

As a result, the cost estimate for complete infrastructure, deficit, and operations needed to support new homes in the region is likely higher than what is shown in the report.

KEY FINDINGS

The study estimates that roughly \$114.8 billion will be required over the next 15 years to support the expected 570,000 new homes in the region by 2041 while maintaining current levels of infrastructure service. This is approximately \$80,000 per capita, or \$201,000 per average dwelling unit, which includes:

- Province: \$81,000 per average dwelling unit
- Metro Vancouver: \$25,000 per average dwelling unit

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- Translink: \$20,000 per average dwelling unit
- Member Jurisdictions: \$74,000 per average dwelling unit

The average dwelling unit cost is based on the average household size, assuming a similar proportion of high, medium, and low density homes as today:

Dwelling Type	Current Proportion of Overall Housing	Estimated Additional Dwelling Units 2026 - 2041	15-Year Average Household Size	Weighted Household Size	Estimated Infrastructure Cost per Dwelling Unit
Low Density (single detached)	18%	101,878	3.405	0.613	\$272,568
Medium Density (multiplexes, row/townhouses)	30%	171,136	3.028	0.908	\$242,339
High Density (apartments)	52%	297,763	1.906	0.991	\$152,535
Total / Average		570,777*	2.512		\$201,082

* Based on the Regional Housing Needs Report. 2022 – 2041 housing unit estimate (755,141) minus 2022 – 2026 estimate (230,456) plus 2026 estimate (46,092) = 570,777.

Growth-related infrastructure costs in Metro Vancouver are borne across all orders of government. At the provincial level, the most significant cost pressures are associated with public education facilities (K–12 and post-secondary), hydro infrastructure, health-related infrastructure (hospitals and long-term care) and transportation infrastructure (highways and bridges). Regional infrastructure, delivered by Metro Vancouver and TransLink, is driven primarily by investments in water and wastewater systems, regional transit infrastructure, and solid waste facilities. Local infrastructure delivered by member jurisdictions is largely driven by investments in local roads and transportation assets, water, wastewater, and stormwater systems, and community facilities and parks. It is also important to note that long-term infrastructure costs such as these are paid for by residents and businesses over many years rather than paid all at once.

Observations and Recommendations

The report highlights the significant fiscal challenge facing local governments as they work to balance the need for new infrastructure to support growth with existing infrastructure deficits, while maintaining affordability for both current residents and new home builders. Rising capital costs, particularly since the pandemic, have further intensified this challenge. In many cases, the additional tax and rate revenue generated from new development does not result in a net financial gain for local governments and can place upward pressure on taxes and levies paid by existing residents.

The study also outlines how revenue and financing tools differ across orders of government and demonstrates that local government tools are often insufficient, on their own, to fully fund growth-related infrastructure. As a result, provincial and federal grant funding plays a critical role in supplementing local revenues and reducing reliance on Development Cost Charges and tax or rate increases when local funding capacity is constrained.

The report identifies the following high-level recommendations:

- Collaborate with provincial and federal governments to explore alternative and enhanced revenue tools to support infrastructure funding.

- Effectively utilize existing revenue tools, including Development Cost Charges, Amenity Cost Charges, Community Amenity Contributions, and density bonusing, and regularly review and update them to reflect current construction costs and growth-related infrastructure needs.
- Strengthen asset management and long-term financial planning to address existing infrastructure deficits and establish dedicated reserves for long-term maintenance and eventual replacement.
- Align data and reporting across all levels of government to better understand existing asset inventories, conditions, and infrastructure deficits to support informed decision-making.

METRO VANCOUVER – RECOMMENDED STRATEGIC ACTIONS AND NEXT STEPS

Building on the findings and recommendations of the study, Metro Vancouver staff recommend a set of strategic actions to advance a constructive and solutions-focused dialogue with provincial and federal governments on infrastructure funding to support housing delivery. Achieving shared housing, affordability, and economic growth objectives will require greater alignment between infrastructure responsibilities and fiscal capacity across all orders of government. Given that senior governments realize a significant share of the long-term fiscal benefits associated with population and economic growth, collaboration on legislative reform, funding models, and enabling new financial tools is essential.

- 1. Call for a New Infrastructure Funding Framework:** Engage in dialogue with the Province and the federal government through a structured advocacy process, such as the Union of BC Municipalities (UBCM), to jointly explore a modernized, long-term infrastructure funding framework. This work should recognize that fiscal capacity is currently constrained across all orders of government, and that decades of local and regional government advocacy have not resulted in a sustained, predictable solution to funding growth-related infrastructure. Rather than focusing on short-term funding pressures or individual grant programs, this initiative should create a new forum for a longer-term, system-level discussion that enables governments to collectively consider the trade-offs, responsibilities, and fiscal tools required to support a growing region. The work should acknowledge the structural limitations of existing municipal revenue tools and focus on identifying more sustainable and predictable approaches that better align infrastructure responsibilities with fiscal capacity, scale with growth, and reduce reliance on one-time funding programs. The objective is to co-develop practical, implementable reforms, potentially including legislative changes, redesigned funding models, or new shared mechanisms that support housing delivery while maintaining long-term financial sustainability.
- 2. Further Exploration of Revenue and Financing Tools:** Undertake further analysis to assess a broad range of taxation, revenue, and financing tools across all orders of government to inform a more substantive, evidence-based discussion on long-term infrastructure funding. This work would provide foundational information to support the development of a modernized infrastructure funding framework, as identified in Recommendation 1. Given the scale and diversity of infrastructure required to support a growing region, no single funding tool will be sufficient on its own. A mix of complementary tools will be required, each with its own strengths, limitations, and trade-offs. The analysis should examine how different tools respond to population growth and inflation, their implications for affordability and equity, and their effectiveness in supporting full infrastructure lifecycle funding. The results could help to clarify the role that different funding approaches can play, identify practical constraints, and support more informed, transparent policy discussions among all orders of government on sustainable approaches to funding growth-related infrastructure.

Next Steps

To advance the strategic directions identified in this report, staff propose to undertake targeted engagement to determine how best to move forward with the two recommendations outlined above. This work would focus on engaging member jurisdictions, advocacy organizations such as UBCM, and provincial and federal government representatives to explore interest, appetite, and potential pathways for advancing a modernized, long-term approach to infrastructure funding.

The purpose of this engagement would be to clarify how these discussions could be most effectively structured, identify existing or emerging forums that could support this work, and assess which organizations or levels of government may be best positioned to lead or convene the proposed initiatives. Engagement would also help to test the feasibility, scope, and sequencing of further work on revenue and financing tools as a foundational input to a broader framework discussion. Following completion of this engagement, staff would report back to the Board with recommendations on whether and how to proceed, including proposed roles, governance considerations, and potential next steps to advance these strategic directions in a coordinated and effective manner.

It is understood that the Ministry of Finance and UBCM have recently formed a standing table to explore financial resilience of local governments, which could be an appropriate venue for furthering discussions related to infrastructure funding.

ALTERNATIVES

1. THAT the MVRD Board:
 - a) receive for information the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region”;
 - b) request that the Board Chair forward a copy of the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region” to Member Jurisdictions and TransLink with an offer of a presentation to Council upon request; and
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 - d) direct staff to advance the strategic recommendations outlined in the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region” and report back to the Board with options and potential next steps for consideration.
2. THAT the MVRD Board receive for information the report dated June 23, 2026, titled “The Cost of Infrastructure Required to Support Growth in the Metro Vancouver Region”.

FINANCIAL IMPLICATIONS

The findings of this report demonstrate the significant level of investment needed to support growth within the Metro Vancouver region. Different types of infrastructure listed in this study are the responsibility of various levels of government including member jurisdictions, Metro Vancouver, TransLink, and the Province. Addressing the structural challenges associated with funding growth-related infrastructure could have positive long-term financial implications for local and regional governments that face increasing fiscal pressures. The total cost of the project was \$50,000, which was

included in the Board-approved Regional Planning budget and was part of the approved scope of work in 2025.

OTHER IMPLICATIONS

This work involved engagement and input from member jurisdictions, Metro Vancouver, TransLink, and the Province. Member jurisdictions and TransLink were engaged through the Regional Planning Advisory Committee and infrastructure surveys involved representatives across organizations (e.g., Engineering, Utilities, Parks, Finance, Administration). The Province was also engaged at a staff level and information was collected through publicly available information.

Initial meetings were held with UBCM to discuss the purpose and scope of the study in relation to their ongoing work and advocacy related to infrastructure. Information on the project was also shared with local First Nations in response to interest in infrastructure funding raised through the Regional Housing Needs Report work.

The final results of the project were shared with the Regional Planning Advisory Committee on June 19, 2026. Comments and feedback included:

- Committee members expressed appreciation for the report's focus on the infrastructure investments and funding required to support population and housing growth, noting that infrastructure considerations are often overshadowed by broader housing discussions.
- Members highlighted ongoing challenges with existing provincial and federal infrastructure funding programs, noting that available programs are often insufficient to meet identified needs and that changing program requirements can make long-term infrastructure planning more difficult.
- Members noted that increasing local government responsibilities in areas such as non-market housing, childcare, and related community services are placing additional financial pressures on municipalities at a time when significant infrastructure investments are also required to support growth.
- Members expressed concern that provincial and federal governments continue to examine or limit local government revenue and funding tools without providing equivalent replacement funding, while expectations for local governments to deliver growth-supporting infrastructure continue to increase.
- Members expressed support for the report and interest in next steps, noting that the findings could help inform discussions with provincial and federal governments regarding infrastructure investment needs, funding challenges, and growth-related service pressures.

This work is intended to support future advocacy by Metro Vancouver and member jurisdictions, to support relationship-building with the Province and federal government and dialogue around potential new funding tools and resources for local governments.

CONCLUSION

This report demonstrates that meeting Metro Vancouver's projected housing growth will require significant infrastructure investment across all orders of government. While recent senior government funding commitments are important, they do not address the underlying structural misalignment between infrastructure responsibilities and available revenue tools, nor do they provide the long-term predictability required for effective planning.

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The findings underscore the need to move beyond short-term, program-by-program approaches and toward a more durable, system-level conversation about how growth-related infrastructure is funded. The strategic recommendations outlined in this report focus on creating space for that discussion by exploring a modernized infrastructure funding framework and strengthening the evidence base around revenue and financing tools. Together, these directions are intended to support more sustainable, predictable, and coordinated approaches to funding the infrastructure required to deliver housing and maintain livable, complete communities over the long term.

ATTACHMENT

1. High-level Infrastructure Demand and Costing Study for Anticipated Growth in the Metro Vancouver Region.
2. Presentation re. Infrastructure Demand to Support Regional Growth.

REFERENCES

1. Jozipovic, M. & Jeliazkova, D. (2025). *Housing 2050: Regional Housing Needs Report*. <https://metrovancover.org/boards/RegionalPlanning/RPL-2025-04-03-AGE.pdf#page=17>.
2. Cote, J. (2025). *Scope of Work – Infrastructure Demand to Support Growth in the Metro Vancouver Region*. <https://metrovancover.org/boards/GVRD/RD-2025-06-27-AGE.pdf#page=27>
3. Cowan, L. (2025). *Project Update – Infrastructure Demand to Support Growth in the Metro Vancouver Region*. <https://metrovancover.org/boards/RegionalPlanning/RPL-2025-11-06-AGE.pdf#page=211>
4. Federation of Canadian Municipalities (2023). *Backgrounder: New research – Canada’s housing challenge is also an infrastructure challenge*. <https://fcm.ca/en/news-media/news-release/new-research-canadas-housing-challenge-also-infrastructure-challenge/backgrounder>
5. Canadian Urban Institute (2024). *A Jump Start: Providing Infrastructure for More Housing*. <https://canurb.org/wp-content/uploads/A-Jump-Start.pdf>

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High-level Infrastructure Demand and Costing

For Anticipated Growth in the Metro Vancouver Region

July 2026

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List of Acronyms and Abbreviations

Acronym	Full Description of Acronym
ACC	Amenity cost charge
DCC	Development cost charge
Ha	Hectares
kWh	Kilowatt-Hour
P.P.U.	Persons per unit
Sq.m	Square metres
Watson	Watson & Associates Economists Ltd.

Executive Summary



Executive Summary

Watson & Associates Economists Ltd. (Watson) was retained by Metro Vancouver to undertake a high-level infrastructure demand and costing analysis to support long-term growth and financial planning. The purpose of this study is to estimate the capital infrastructure investment required to accommodate anticipated dwelling unit growth to 2041, and to provide a foundational basis for discussions with senior levels of government regarding infrastructure funding needs.

The analysis considers infrastructure across three levels of government: provincial, regional agencies, and local governments, to provide an understanding of the full cost of growth. The analysis is based on a comprehensive survey of data collected from member jurisdictions and Metro Vancouver, publicly available information, and industry standard cost assumptions.

Current State of Infrastructure

Metro Vancouver has a population of approximately 3.1 million residents, representing over half of the Province of British Columbia's population. Infrastructure is provided by several levels of government. This includes the member jurisdictions, Metro Vancouver, TransLink, the Provincial government, and the Federal government. Note, the analysis herein includes all levels of government except for the Federal level.

The following provides an estimated breakdown of the approximate replacement cost of existing infrastructure per dwelling unit. While this does not necessarily reflect the exact infrastructure required moving forward, it can be used as a proxy to estimate future infrastructure funding needs:

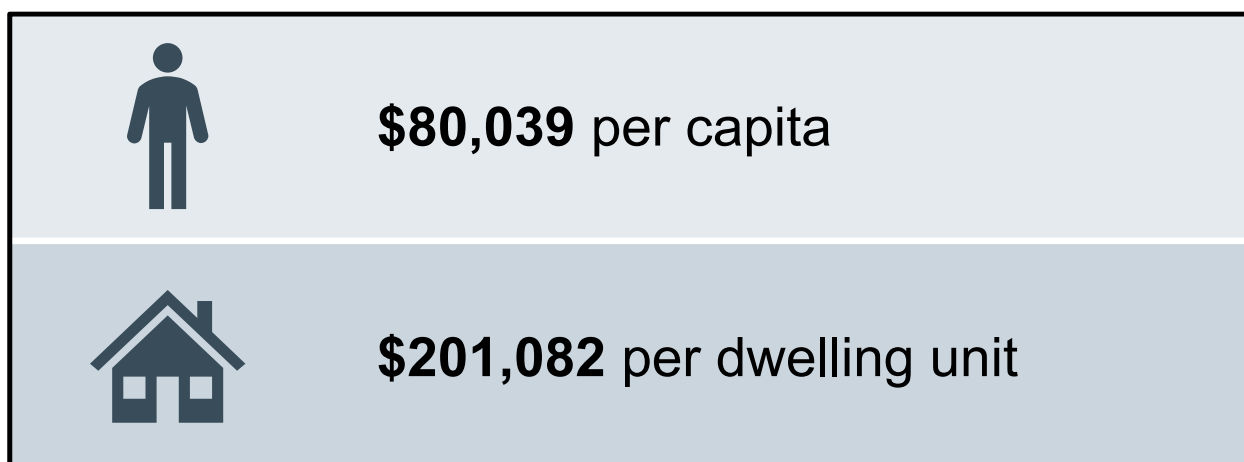
- Province of B.C.: \$81,317 per dwelling unit
- Metro Vancouver: \$25,690 per dwelling unit
- TransLink: \$19,924 per dwelling unit
- Member Jurisdictions: \$74,151 per dwelling unit



Figure ES-1 summarizes the costs per dwelling unit and per capita.¹ Figure ES-2, summarizes the infrastructure replacement costs and cost per dwelling unit by infrastructure type and level of government.

The study also identifies existing infrastructure deficits across several municipalities and at the provincial level. These deficits are primarily driven by aging infrastructure and historical underinvestment. While not all jurisdictions were able to quantify their deficits, examples provided indicate that deficits are present across the region. These deficits represent additional costs beyond those required to accommodate growth.

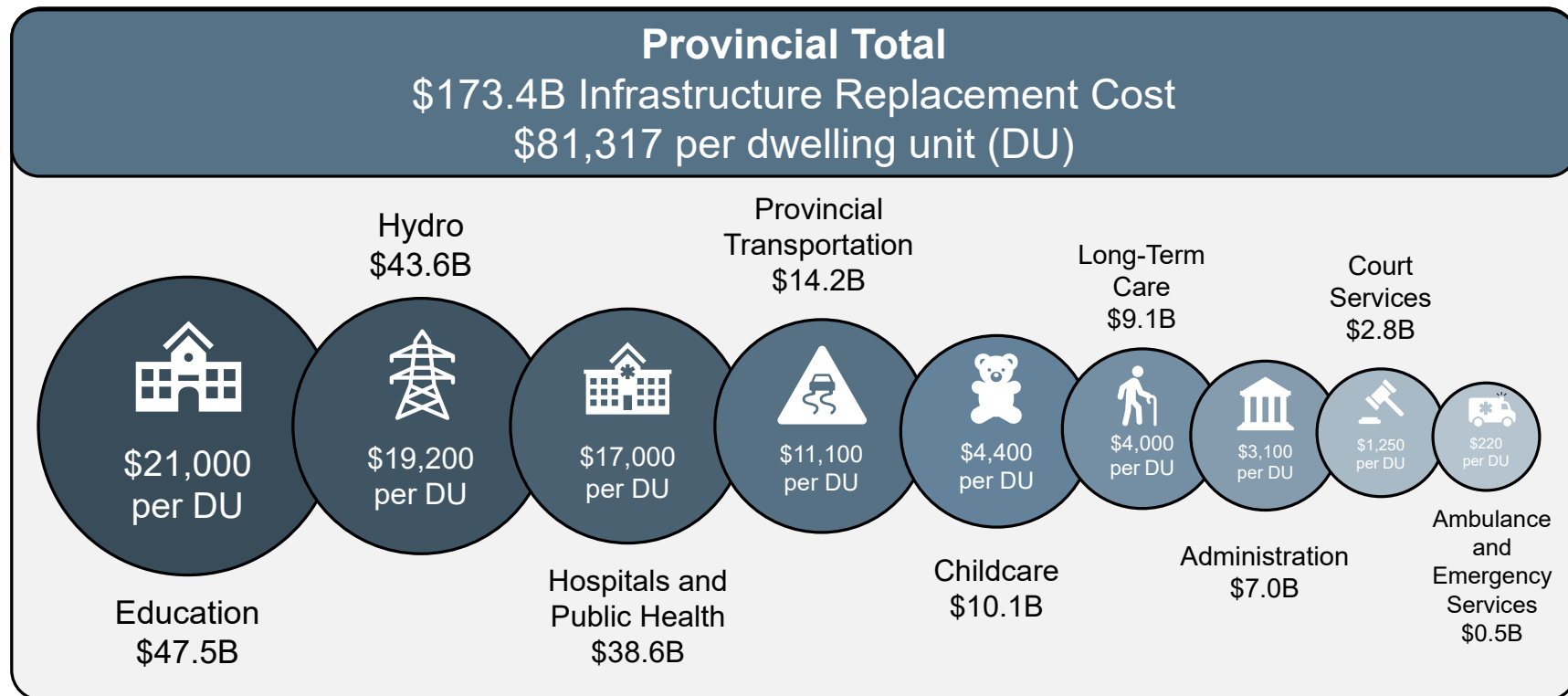
Figure ES-1
Cost of Infrastructure per Dwelling Unit

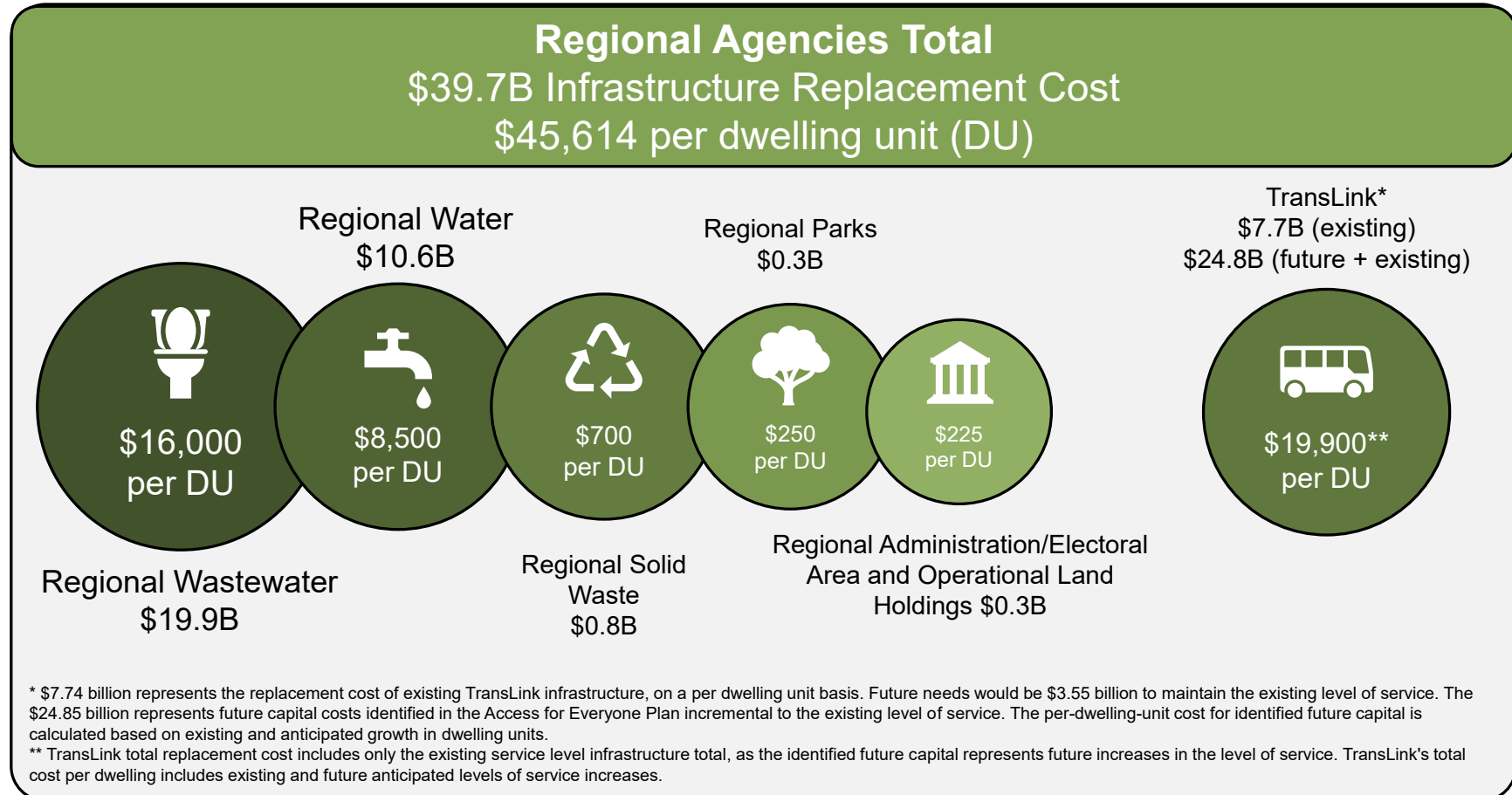


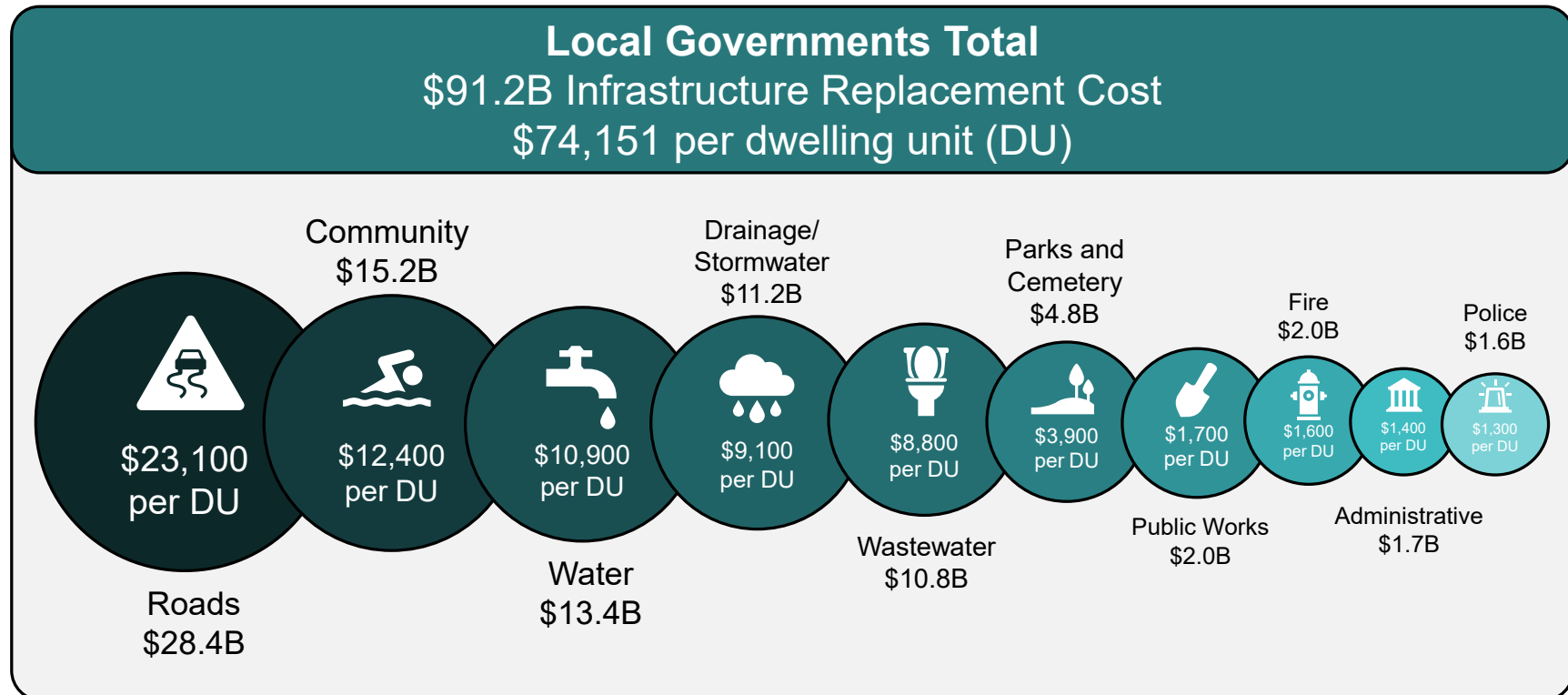
¹ Note, dwelling units are based on a weighted persons per unit, calculated by weighting the persons per unit in the various dwelling unit types (i.e., low, medium, and high-density dwellings), based on the existing dwelling units, as presented in Table ES-1.



Figure ES-2
Estimated Infrastructure Replacement Cost and Cost per Unit by Infrastructure Type









Future State of Infrastructure Required to Accommodate Growth

Metro Vancouver is expected to experience significant growth over the coming years. In the next 15 years, an anticipated 570,777 new homes will be needed as per the Regional Housing Needs Report which is a compilation of local housing needs reports. This is developed to align with the provincial “HNR Method” that legislatively informs development capacity in Official Community Plans and Zoning Bylaws. This estimate addresses both anticipated and underlying housing need and is inclusive of provincial housing target orders for some municipalities.

To maintain current levels of infrastructure for this growth, and assuming a similar proportion of low, medium, and high-density homes as today (Table ES-1)¹, the total infrastructure investment required to support growth in the region is estimated at approximately \$114.77 billion by 2041². This does not include investments related to addressing existing infrastructure deficits or operations/programming costs. However, it is worth noting that major infrastructure projects are not paid for upfront but paid for over time (e.g., 15 – 30 years) so the actual timeframe to pay for this infrastructure could extend beyond 2041.

It is also worth noting that additional funding will be needed to deliver necessary affordable housing for low- to moderate-income households in the region. Over the next 5 years alone, an estimated 29,250 to 54,500 affordable units will be needed, requiring between \$10.1 to \$19.3 billion in investment from all levels of government (e.g. grant or contribution funding, low-cost financing, policy changes, and local government contributions and incentives) to deliver the scale and affordability required³.

¹ <https://metrovancover.org/services/regional-planning/Documents/regional-housing-needs-report.pdf>

² Note: this value is in 2026 dollars and does not account for inflation

³ Metro Vancouver (2025). Affordable Housing Gap Analysis. <https://metrovancover.org/services/regional-planning/Documents/affordable-housing-gap-analysis-discussion-paper.pdf>



Table ES-1
Metro Vancouver Dwelling Unit Growth to 2041

Dwelling Type	Current Proportion of Overall Housing	Estimated Additional Dwelling Units to 2041	Average Cost per Dwelling Unit
Low Density	18%	101,878	\$272,568
Medium Density	30%	171,136	\$242,339
High Density	52%	297,763	\$152,535
Total		570,777	

Key Findings

The analysis identifies several key themes that are critical to addressing the infrastructure funding challenge in the region:

- Approximately \$114.77 billion is needed to build municipal, regional, and provincial infrastructure to support future growth;
- Growth and development require capital investments into the following infrastructure:



Province of British Columbia	Regional Agencies		Member Jurisdiction
	Metro Vancouver	TransLink	
Administration	Regional Administration/ Electoral Area and Operational Land Holdings	TransLink	Municipal/Administrative
Court Services	Regional Water		Water
Childcare	Regional Wastewater		Wastewater
Hospitals and Public Health	Regional Solid Waste		Drainage/Stormwater
Long-Term Care	Regional Parks		Roads
Ambulance and Emergency Services			Public Works
Education			Fire
Provincial Transportation (Roads and Bridges)			Police
Hydro			Community Services
			Parks and Cemeteries
			Solid Waste

- Existing infrastructure deficits and operating expenditures would increase the total funding requirements beyond the estimates outlined in this analysis;
- Some costs included in the analysis do not scale directly with growth. For example, an increase in households may not result in a proportional need for additional administrative facility space due to economies of scale.
- Infrastructure responsibilities are shared across all levels of government, requiring coordinated funding solutions; and
- Long-term financial planning and asset management are essential to ensuring sustainable infrastructure delivery.

Observations and Reflections

Based on the analysis presented throughout the report, a number of strategic recommendations have been prepared and are summarized as follows:



Recommendation #1

Consideration should be given to exploring alternative revenue tools to support infrastructure funding. Given the limitations of existing local government revenue tools, reliance on property taxes and growth-related charges may not be sufficient to address the scale of investment required. Opportunities for new funding mechanisms may warrant further exploration and collaboration with provincial and federal governments.

Recommendation #2

Local governments should effectively utilize available growth-related financing tools, including DCCs, ACCs, CACs, and density bonusing provisions. Ensuring that these charges are regularly reviewed and updated to reflect updated construction costs and growth-related infrastructure needs is important for ensuring cost recovery and reducing the burden on taxpayers and ratepayers. Further analysis should be undertaken in concert with recommendation #3 to determine the long-term financial impact of constructing new infrastructure relative to the additional tax revenue generated from growth.

Recommendation #3

Metro Vancouver and local municipalities should continue to strengthen asset management policies and long-term financial planning to address current infrastructure and funding deficits and ensure they do not continue to grow. Stronger asset management policies may include the establishment of dedicated reserves to save for the long-term maintenance and ultimate replacement of the new assets.

Comprehensive asset management planning and long-term financial planning assist local governments in identifying lifecycle costs, saving for asset repairs and replacements, prioritizing infrastructure investments, and mitigating the risk of future infrastructure deficits. Through other financial impact analyses and long-term financial planning studies undertaken by Watson, it has been observed that, especially with the increase in capital costs arising from COVID-19 (e.g. material and equipment price inflation, labour shortages, and higher post-pandemic interest rates), the additional tax and rate revenue generated from new development does not typically provide a net financial gain for local governments and in many cases, new development provides upward pressure on tax rates and water/wastewater rates. As part of the long-term financial planning processes, local governments can assess future anticipated tax and water/wastewater rate increases against affordability within their communities.



Recommendation #4

Efforts should be made to improve data consistency and reporting across all levels of government. Standardizing reporting for asset inventory, asset conditions, and infrastructure deficits could enhance future infrastructure funding analyses and help support informed decision-making at all levels of government.

Recommendation #5

At a high level, local government tools such as property taxes and development cost charges are primarily tied to land values, assessment growth, and development activity. While these tools can support servicing growth to some extent, there continues to be upward pressure on both DCCs and property taxes. The existing tax base is often relied upon to help finance new or expanded infrastructure.

By contrast, provincial and federal taxation tools, such as income taxes, sales taxes, and business taxes, generally grow more directly with population, economic activity, and consumption, and tend to scale as communities grow.

While the evaluation of taxation and funding tools was outside the scope of this project, one potential recommendation would be to identify the need for further study on this topic.

Such work could explore the range of available funding and taxation tools across levels of government, with a view to better understanding their respective strengths, limitations, and trade-offs, and how effectively they respond to population growth and associated infrastructure demand. This type of analysis could help inform future policy discussions regarding the most appropriate and sustainable funding approaches for growing communities.

Report



Chapter 1

Introduction and Study Overview



1. Introduction and Study Overview

1.1 Introduction

Watson & Associates Economists Ltd. (Watson) was retained by Metro Vancouver to undertake a high-level infrastructure demand and costing analysis. This work is intended to provide a high-level per dwelling unit cost estimate associated with the forecasted housing need in the region to 2041. The findings presented herein may be used in future analyses to support local government advocacy to senior levels of government around infrastructure funding support for the expected growth in the region.

The analysis includes a review across three levels of government, from the Province, regional agencies including Metro Vancouver and TransLink, and the member jurisdictions (municipalities and Treaty First Nation) within the region. The intent of this analysis is to capture all costs associated with infrastructure provided by several levels of government (Note, this analysis excludes federal-level infrastructure). Types of infrastructure are summarized in Section 2.3. Costs related to certain infrastructure may be funded through development cost charges (DCCs) or amenity cost charges (ACCs); however, certain infrastructure costs are ineligible for funding from these revenue tools (e.g., City Halls). The financing tools available to the various levels of government are summarized in Table 1-1.

1.2 Study Process and Approach

The overall study process was completed in three phases. The first phase consisted of a current state analysis of the existing capital infrastructure investments across the local, regional, and provincial levels. This review provided an overview of current infrastructure levels. The second phase assumed current standards with respect to infrastructure would continue and applied them to the anticipated housing need to 2041. The third phase involved a qualitative review of the impact of existing infrastructure deficits. A summary schematic is provided in Figure 1-1. A subsequent discussion on growth-related financing tools is provided in Section 4 of this report.

The first phase was completed by developing a survey and distributing it to the member jurisdictions, which requested information on existing assets on a service-by-service basis (e.g., total length of watermain, number of facilities/floor area of facilities, etc.).



Information on existing asset management plans or other documents that address asset management needs were also requested through the survey. In addition, any information on recent investments which would be indicative of current infrastructure costs was also requested, as well as information on existing infrastructure deficits in the local governments. A sample of the distributed survey is provided below in Figure 1-2.



Table 1-1
Summary of Government Revenue Generation and Financing Tools

Financing Tools	Federal	Provincial (BC)	Metro Vancouver	TransLink	Local Governments
Property Tax		✓ (Education)	✓	✓	✓
Personal Income Tax	✓	✓			
Corporate Income Tax	✓	✓			
Sales Tax (GST / PST)	✓ (GST)	✓ (PST)			
Municipal and Regional District Tax (MRDT)			✓		✓
Excise / Fuel / Carbon Taxes	✓	✓		✓	
Development Cost Charges (DCCs)			✓	✓	✓
Area Cost Charges (ACCs)					✓
Community Amenity Contributions (CACs)					✓
Density Bonusing / Amenity Zoning					✓
Subdivision Servicing Requirements					✓
User Fees	✓	✓	✓	✓	✓
Utility Rates (Water, Sewer, Solid Waste)			✓		✓
Licences & Regulatory Fees	✓	✓	✓		✓
Provincial Grants			✓	✓	✓
Federal Grants		✓	✓	✓	✓
Gas Tax / Canada Community Building Fund		✓	✓		✓
Debt Issuance	✓	✓	✓	✓	✓
Public-Private Partnerships (P3s)	✓	✓	✓	✓	✓
Land Sales / Leasing Revenue	✓	✓	✓	✓	✓
Investment Income / Reserves	✓	✓	✓	✓	✓



Figure 1-1
Summary of Study Approach





Figure 1-2
Sample of Distributed Survey

Engineering Services 	
Water Assets	2025 Information
Water Storage Assets:	
Count:	
Water Pump Stations:	
Count:	
Water Pipes:	
Total Length (metres):	
Does your organization have any recently constructed assets for this service area? If so, please provide any details on costing, including the item, year of construction or purchase, the floor area (if applicable), capacity (if applicable), and length (if applicable).	
Wastewater Assets	2025 Information
Lagoon Systems (if applicable):	
Count:	
Wastewater Pump Stations:	

Emergency Services 	
Fire Assets	2025 Information
Fire Facilities:	
Count:	
Total floor area (square metres):	
Land Vehicles:	
Count:	
Specialized Vehicles (Including boats, trailers, ATVs, drones):	
Count:	
Equipment (excluding staff outfitting):	
Count:	
Staff Outfitting:	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	

Community Services 	
Culture, Recreation and Sports Assets	2025 Information
Indoor Ice Arenas (Including Curling Rinks):	
Count:	
Total floor area (square metres):	
Indoor Pool Buildings:	
Count:	
Total floor area (square metres):	
Multi-Purpose Sports Centres:	
Count:	
Total floor area (square metres):	
Art Galleries, Museums, and Archive Buildings:	
Count:	
Total floor area (square metres):	

Note, the above provides a small snippet of the full survey. The full survey included all infrastructure provided by Metro Vancouver and the member jurisdictions (Appendix A).



With respect to Provincial infrastructure and TransLink, publicly available information on funding levels and existing assets was reviewed and included in the analysis.

The analysis is highly dependent on receiving accurate and fulsome responses to the distributed surveys from member jurisdictions. Where data were incomplete or missing, assumptions were made to fill the gaps. Further discussion on the assumptions utilized is provided in Sections 2 and 3 of this report.

1.3 Study Limitations

The following analysis is intended to provide a high-level per dwelling unit cost estimate associated with the forecasted housing need in the region to 2041. Therefore, the analysis has a number of limitations, exclusions, and assumptions, including:

- The assumption that current infrastructure levels/targets will be maintained into the future.
- The assumption that the current provincial infrastructure levels provided in Metro Vancouver are consistent across the province.
- Where data was unavailable (e.g., for a municipality), assumptions were made based on populations and per capita averages from other municipalities. Data was provided for municipalities covering approximately 79% of the total population in the region.
- Data was provided from a variety of sources including insured value, assessed value, or capital estimates based on recent comparable construction. Asset valuation data may also be dated. Therefore, some values listed may not reflect the true cost of replacing an asset and underestimate the total overall replacement cost.
- The 'replacement cost' methodology does not account for additional costs facing new infrastructure such as new regulatory requirements (e.g. new wastewater treatment or seismic requirements) or cost inflation (e.g., from labour or land shortages, construction cost escalation) which can significantly increase the cost of new infrastructure.



- The 'replacement cost' methodology is used where a consistent, scalable estimate is needed across jurisdictions with differing capital planning details, scope, and timing. The results are not intended to support detailed infrastructure planning but rather provide an approximate and standardized per-unit metric. While simplified, it is a common approach used by similar studies to produce an order-of-magnitude estimate suitable for advocacy discussions.
- The analysis does not include:
 - Costs for the current infrastructure deficit (e.g., infrastructure in poor condition or lacking sufficient capacity – includes not meeting infrastructure levels for areas with clear targets per capita like childcare or parks);
 - Lifecycle (asset replacement) costs;
 - Operations, staffing, or programming costs;
 - Municipal capital grants for various areas such as affordable housing, sustainable initiatives, childcare, recreation, heritage, etc.;
 - Additional infrastructure costs outside of the specific categories mentioned in this report (e.g., public health clinics, public and non-profit housing and homeless shelters);
 - Major capital projects that do not currently have a publicly available budget (e.g., UBCx Skytrain);
 - Local government solid waste infrastructure (e.g. transfer stations);
 - Land value for regional parks;
 - Flood protection infrastructure: dykes, levees, etc.; and
 - Municipal energy facilities, including district energy facilities and local utilities.

As a result, the cost estimate for future infrastructure is limited to the anticipated capital costs required for certain services. The costs to fully support the long-term provision of infrastructure for complete communities are therefore not identified in this analysis.

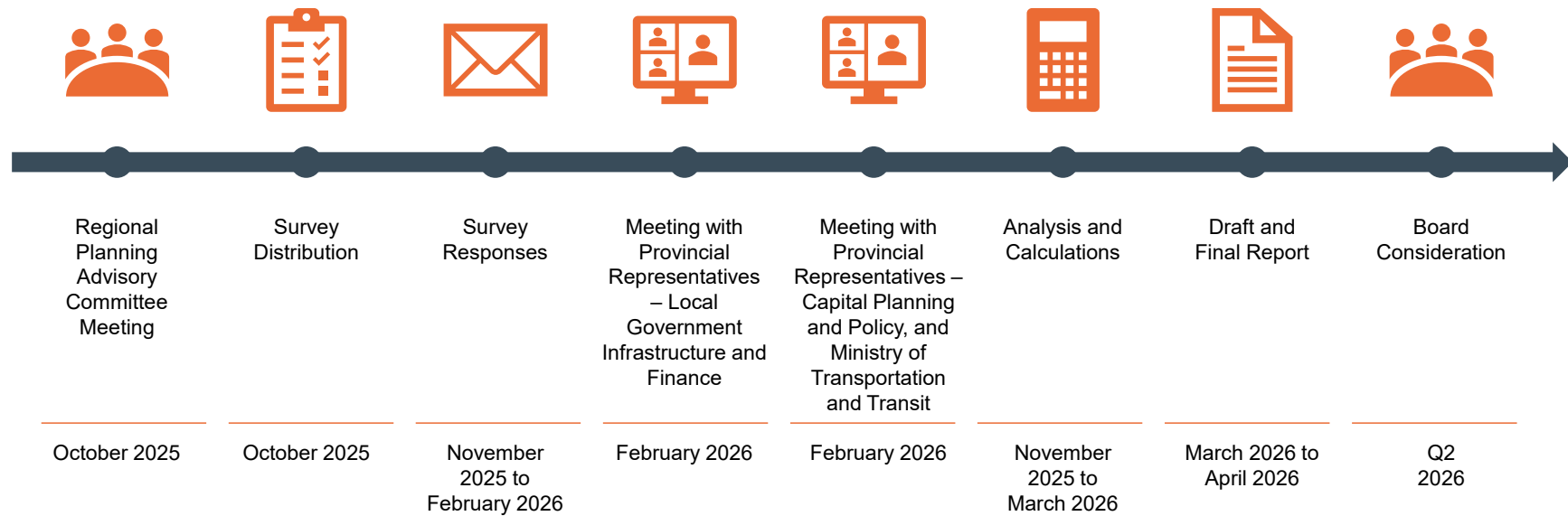


1.4 Study Timelines

The study process commenced with an initial meeting with the Regional Planning Advisory Committee, followed by distributing a survey to Metro Vancouver's 22 member jurisdictions (excluding Electoral Area A as this was covered through Metro Vancouver's response). While awaiting responses from member jurisdictions, Watson met with members of the provincial government and conducted a desktop review of infrastructure levels provided by the provincial government. After receiving responses from the member jurisdiction survey, the analysis was undertaken, resulting in a draft report. The draft report was provided to Metro Vancouver staff for review and was later finalized for consideration of the Board. The study timelines are summarized in Figure 1-3 below.



Figure 1-3
Study Timelines





Chapter 2

Current State



2. Current State

2.1 Overview of Current State

This section of the report provides a summary of the current state of infrastructure in the region. A survey was provided to Metro Vancouver and member jurisdictions to estimate the quantity and value of infrastructure currently in place which provides services to the community. It is noted that not all local governments were able to respond to the survey within the requested timeframe. As such, assumptions have been made to fill information gaps. These assumptions are discussed further throughout this section.

The result of the analysis in this section is an estimated summary of the amount of infrastructure and the estimated replacement cost by jurisdiction, by service, and provided on a per dwelling unit basis. These values will be utilized in Section 3 to estimate the future capital costs required to accommodate growth and development in the region.

2.2 Current Populations

Based on data from Statistics Canada, the population of British Columbia (B.C.) in 2024 was 5,698,430, with Metro Vancouver accounting for approximately 55% of the Province's total population at 3,124,079. Within Metro Vancouver, there are 23 member jurisdictions, including 21 municipalities, 1 electoral area, and 1 treaty First Nation, as well as 9 additional local First Nations. Table 2-1 below summarizes the 2024 population in each jurisdiction.



Table 2-1
Current (2024) Population Summary

Local Government	2024 Population	Local Government	2024 Population
British Columbia	5,698,430	City of Port Coquitlam	69,371
Metro Vancouver	3,124,079	City of North Vancouver	67,980
City of Vancouver	757,849	District of West Vancouver	52,280
City of Surrey	700,602	City of Port Moody	38,942
City of Burnaby	298,986	City of Langley	35,316
City of Richmond	242,966	Electoral Area A	35,124
City of Coquitlam	174,248	City of White Rock	25,129
Township of Langley	162,926	City of Pitt Meadows	21,692
City of Delta	125,175	Bowen Island Municipality	4,677
City of Maple Ridge	106,489	Tsawwassen First Nation	4,869
District of North Vancouver	102,284	Village of Anmore	2,568
City of New Westminster	92,433	Village of Lions Bay	1,468
		Village of Belcarra	704

Note: As per Metro Vancouver Growth Projections, municipal totals, with exception of scəw aθən məsteyəx^w (Tsawwassen First Nation), include the estimates of Indian Reserves located within the respective municipal boundary.

2.3 Current Infrastructure

Each level of government provides various types of infrastructure to the local community. Table 2-2 below outlines the infrastructure provided by each level of government that was included in the analysis. Note, this analysis only reviews infrastructure such as facilities, vehicles, and equipment, and excludes day-to-day and long-term operating expenditures.

The information used as part of this analysis was obtained from surveys that were distributed to Metro Vancouver as well as each of the member jurisdictions, except for Electoral Area A, as Metro Vancouver acts as the local government for this area. The survey includes questions on asset count, facility area, and cost examples for the infrastructure provided by each level of government. A sample of the distributed survey is provided in Appendix A.



Table 2-2
Summary of Infrastructure Provided by Each Level of Government

Province of British Columbia	Regional Agencies		Member Jurisdiction
	Metro Vancouver	TransLink	
Administration	Regional Administration/ Electoral Area and Operational Land Holdings	TransLink	Municipal/Administrative
Court Services	Regional Water		Water
Childcare	Regional Wastewater		Wastewater
Hospitals and Public Health	Regional Solid Waste		Drainage/Stormwater
Long-Term Care	Regional Parks		Roads
Ambulance and Emergency Services			Public Works
Education			Fire
Provincial Transportation (Roads and Bridges)			Police
Hydro			Community Services
			Parks and Cemeteries
			Solid Waste

2.3.1 Survey Respondents and Represented Population

Surveys were distributed to 22 of the member jurisdictions, Metro Vancouver, TransLink, and the Province. A total of 11 member jurisdictions completed the survey, representing approximately 79% of the total population in Metro Vancouver. Additionally, Metro Vancouver, TransLink, and the province also provided responses.

2.3.2 Current Infrastructure Service Levels

2.3.2.1 Province of British Columbia

The Province of British Columbia provides infrastructure related to administration, court services, child-care, hospitals and public health, long-term care, ambulances and emergency response, education (kindergarten, elementary, secondary, and post-secondary), provincial transportation, and hydro. The various infrastructure levels were evaluated based on a survey completed by the Province and publicly available



information. The total cost per dwelling for provincial infrastructure is summarized in Table 2-3 and the details by service are provided below.

2.3.2.1.1 Education

Kindergarten to Grade 12

Based on the information provided by the Province, British Columbia has an existing inventory of 570 schools from kindergarten to grade 12 within Metro Vancouver, with a total floor area of approximately 3.10 million sq.m. The estimated replacement cost of these schools totals approximately \$9.88 billion. Based on this, the estimated cost per dwelling unit is approximately \$7,943 for kindergarten to grade 12 schools.

The Province also has 35 administrative buildings and 79 school buses within Metro Vancouver, with total replacement values of approximately \$316.60 million and \$16.40 million, respectively. The estimated costs per dwelling are approximately \$255 and \$13, respectively.

Post-Secondary

Based on responses received on the Provincial survey, there are approximately 623 facilities with a total area of approximately 2.87 million sq.m at the post-secondary education level within Metro Vancouver. The estimated replacement value of post-secondary facilities is approximately \$15.85 billion. Based on this, the estimated cost per dwelling unit is approximately \$12,748 for post-secondary schools.

The total cost per dwelling unit for education institutions of all levels across the province is approximately \$20,958.

2.3.2.1.2 Hydro

B.C. Hydro currently serves approximately 5.00 million people, or 2.02 million residential customer accounts, and 232,100 non-residential accounts. The average annual household usage is 10,000 kWh. B.C. Hydro has an existing inventory of 33 hydro plants, 132 independent power producer projects, 60,650 km of distribution lines, 20,233 km of transmission lines, and 300 substations¹.

¹<https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/accountability-reports/financial-reports/annual-reports/2024-2025-bc-hydro-quick-facts.pdf>



The 10-year capital plan identifies \$36.00 billion worth of future capital projects from 2025 to 2034. The 10-year capital plan supports an additional 380,000 new households, as well as existing households¹.

The capital plan can be further broken down into the following categories:

- Existing Assets (to ensure they can handle the expansion and continue to serve future generations): \$21.00 billion
- New electrification and greenhouse gas reduction efforts: \$10.00 billion
- To support new customer connections, particularly in high-growth areas: \$5.00 billion

Based on the 380,000 additional households supported, the new household growth is approximately 16% of the existing households served. To calculate the growth-related capital costs, 16% of capital costs from the existing assets category, 16% of capital costs from the new electrification and greenhouse gas reduction efforts category, and 100% of costs from the new customer connections category were summed for a total of approximately \$9.90 billion in growth-related costs. This translates to a cost per dwelling unit of approximately \$19,218.

2.3.2.1.3 Hospitals and Public Health

According to the Provincial survey response, the Province has an existing supply of 239 hospital and other health services facilities with a total floor area of approximately 2.43 million sq.m within Metro Vancouver. The estimated replacement value of these facilities is approximately \$21.14 billion. Based on this, the estimated cost per dwelling unit is approximately \$16,997 for hospitals and all other public health facilities.

2.3.2.1.4 Provincial Transportation (Roads and Bridges)

The Province of B.C. owns and maintains approximately 47,000 km of roadways and 3,000 bridges². Of these, approximately 953 bridges and 982 km of roadway exist within Metro Vancouver³.

Based on recent cost examples from Metro Vancouver member jurisdictions and their asset management plans, the cost per km used in this analysis is approximately \$5.00

¹ <https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/capital-plan/capital-plan-2024.pdf>

² https://www.bcbudget.gov.bc.ca/2025/pdf/2025_budget_and_fiscal_plan.pdf

³ Province of British Columbia Transportation – Highway Division



million for provincial roadways and \$3.54 million for provincial bridges, based on the wider right-of-way of Provincial roads compared to local roads. This ultimately translates to a cost per dwelling unit of \$3,552 for provincial roadways and \$2,715 per dwelling unit for provincial bridges. Based on this, the total replacement cost of provincial roadways and bridges within Metro Vancouver is approximately \$14.2 billion.

It is noted that the Province is also undertaking the following TransLink capital projects:

- Surrey-Langley SkyTrain; and
- Broadway extension.

These projects would not fall under the roads or bridges detailed above, but would provide additional costs per dwelling unit for future growth and existing households. While these costs do not represent existing infrastructure with a replacement cost, construction is actively underway, so these projects have been included. The estimated costs of the above two projects are approximately \$5.996 billion¹ and \$2.83 billion², respectively. Based on these projects, the additional cost per dwelling unit would be \$4,866.

The total cost per dwelling unit for future growth for all provincial transportation infrastructure is approximately \$11,133.

2.3.2.1.5 Childcare

Based on the Design Guidelines for childcare centres in B.C., the average area per child is approximately 4.62 sq.m³. The Federal Government has set a target of 5.9 childcare spaces per 10 non-school aged children (0.59 spaces per child)⁴. The Altus Construction Cost Guide incorporates childcare facilities in the Municipal Office Buildings category. As such, the average cost of Municipal Office Buildings in the Vancouver region was used. Based on the above, the province's cost per dwelling unit for childcare is approximately \$4,439. Note, the above excludes costs for outdoor play areas which are required.

¹ <https://surreylangleyskytrain.gov.bc.ca/project-overview/>

² <https://www.infrastructurebc.com/project/broadway-subway-project/>

³ https://www2.gov.bc.ca/assets/gov/family-and-social-supports/child-care/info-partners-prov/childcarebc_design_guidelines.pdf

⁴ <https://www.policyalternatives.ca/news-research/cash-cow-assessing-child-care-space-creation-progress/#:~:text=Child%20care%20deserts%20remain,by%20roughly%2015%20percentage%20points.>



2.3.2.1.6 Long-Term Care

According to the Provincial survey response, the Province has an existing supply of 128 long-term care facilities with a total floor area of approximately 640,450 sq.m within Metro Vancouver. The estimated replacement value of these facilities is approximately \$5.01 billion. Based on this, the estimated cost per dwelling unit for long-term care facilities is approximately \$4,026.

2.3.2.1.7 Administration

The Province owns and leases approximately 1,040 buildings in 140 communities across the province¹. The purpose of these buildings is to deliver programs to residents or to serve as a headquarters for administrative functions. The total square metres of building space are approximately 1.32 million sq.m with a total replacement value of approximately \$6.97 billion based on the 2025 Altus Construction Cost guide for the average cost of Municipal Office Buildings in the Vancouver region. Based on the province's existing population, the total building space provided per dwelling unit is approximately 0.58251 sq.m, which equates to a replacement cost of \$3,072 per dwelling unit.

2.3.2.1.8 Court Services

According to the provincial survey, the Province operates 10 court locations within Metro Vancouver. The total building area is approximately 168,602 sq.m with a total replacement value of approximately \$1.56 billion. Based on the existing population of Metro Vancouver, the total building space provided per dwelling unit is approximately 0.13559 sq m, at a cost of \$1,251 per dwelling unit.

2.3.2.1.9 Ambulances and Emergency Services

The province has an existing supply of 658 ground ambulances, 15 air ambulances, 273 non-transport support vehicles², and 44 facilities (facilities are located within Metro Vancouver) with an estimated area of 9,745 sq.m (based on information provided in the provincial survey).

¹ <https://catalogue.data.gov.bc.ca/dataset/bc-government-owned-and-leased-properties>

² <https://news.gov.bc.ca/releases/2024HLTH0066-000754>



The following cost assumptions were made for each asset type based on various sources:

- Ground Ambulance: \$295,882 (source: Grey County, ON¹)
- Air Ambulance: \$13,000,000 (source: Edmonton, AB²)
- Non-Transport Support Vehicles: \$65,000 (source: Cost based on MSRP from Ford.ca)
- Sq.m of Facilities: \$5,282 (source: provincial survey response)

The total costs and assets per dwelling unit for each asset type are summarized below:

- Ground Ambulances: \$194.69 million (0.00029 ground ambulances per dwelling)
- Air Ambulances: \$195.00 million (0.00001 air ambulances per dwelling)
- Non-Transport Support Vehicles: \$17.75 million (0.00012 vehicles per dwelling)
- Facilities: \$51.48 million (0.00784 sq.m per dwelling)

Based on the above, the total cost per dwelling unit for ambulance services is approximately \$221, broken down as follows:

- Ground Ambulances: \$85.83 per dwelling unit
- Air Ambulances: \$85.97 per dwelling unit
- Non-Transport Support Vehicles: \$7.82 per dwelling unit
- Facilities: \$41.40 per dwelling unit

2.3.2.1.10 Summary of Provincial Infrastructure

Based on the infrastructure provided by the province, the total cost of infrastructure is approximately \$81,317 per dwelling unit. Table 2-3 below provides a summary of the infrastructure type, quantity and quality per dwelling unit, as well as the cost per dwelling unit for each service, where applicable.

¹ <https://pub-grey.escribemeetings.com/filestream.ashx>

² https://stars.ca/news-releases/stars-celebrates-renewed-fleet-by-welcoming-cutting-edge-helicopter-to-edmonton/?utm_source=chatgpt.com



Table 2-3
Current Infrastructure Service Levels in the Metro Vancouver Region – Province of British Columbia

Service Category	Sub-Component	Estimated Total Replacement Cost	Units of Measure	Cost (per Unit of Measure)	Quantity (per dwelling)	Cost (per dwelling)
Education	Administrative Buildings	\$577,490,000	sq.m. of building area	\$3,186	0.07990 sq.m. of building area	\$254.60
	Buses	\$29,910,000	no. of buses	\$207,595	0.00006 no. of busses	\$13.19
	Kindergarten to Grade 12	\$18,015,810,000	sq.m. of building area	\$3,198	2.48344 sq.m. of building area	\$7,942.73
	Post-Secondary	\$28,914,420,000	sq.m. of building area	\$5,527	2.30652 sq.m. of building area	\$12,747.65
Hydro		\$43,590,970,000		n/a	n/a	\$19,218.18
Hospitals and Public Health	Hospitals and Public Health	\$38,553,540,000	sq.m. of building area	\$8,695	1.95481 sq.m. of building area	\$16,997.30
Provincial Transportation (Roads and Bridges)	Roads	\$8,057,450,000	km of roadway	\$4,497,887	0.00079 km of roadway	\$3,552.33
	Bridges	\$6,157,790,000	No. of bridge	\$3,542,412	0.00077 No. of bridge	\$2,714.82
	TransLink Identified Future Capital			n/a	n/a	\$4,866.20
Childcare	Childcare	\$10,068,240,000	sq.m. of building area	\$5,274	0.84160 sq.m. of building area	\$4,438.84
Long-Term Care	Long-Term Care	\$9,131,850,000	sq.m. of building area	\$7,817	0.51503 sq.m. of building area	\$4,026.01
Administration	Administration	\$6,968,710,000	sq.m. of building area	\$5,274	0.58251 sq.m. of building area	\$3,072.33
Court Services	Court Services	\$2,838,560,000	sq.m. of building area	\$9,230	0.13559 sq.m. of building area	\$1,251.45
Ambulance and Emergency Services	Ground Ambulances	\$194,690,000	No. of vehicles	\$295,882	0.00029 No. of vehicles	\$85.83
	Air Ambulances	\$195,000,000	No. of vehicles	\$13,000,000	0.00001 No. of vehicles	\$85.97
	Non-Transport Support Vehicles	\$17,750,000	No. of vehicles	\$65,000	0.00012 No. of vehicles	\$7.82
	Facilities	\$93,890,000	sq.m of building area	\$5,282	0.00784 sq.m of building area	\$41.40
Total		\$173,406,070,000				\$81,316.66



2.3.2.2 *Regional-Level Infrastructure*

2.3.2.2.1 **Metro Vancouver Infrastructure**

Metro Vancouver provides infrastructure related to regional water treatment and supply, wastewater collection and treatment, solid waste, administration/operations, and regional parks. The total population of Metro Vancouver was estimated to be 3,124,079 in 2024.

The various service levels were evaluated based on a survey provided to Metro Vancouver. The total estimated value of existing assets is \$31.95 billion. The estimated quantity and replacement cost of the existing assets were utilized to estimate the quantity per dwelling unit and the cost per dwelling unit. Further detail is provided in Table 2-4 below.

The evaluation of the cost per dwelling unit associated with the current level of service has been calculated by assessing the replacement cost of each asset category and the quantity of assets per dwelling unit. The analysis is summarized for the various types of infrastructure as follows:

- The total cost per dwelling unit for regional wastewater infrastructure is approximately \$16,002¹.
- The total cost per dwelling unit for regional water infrastructure is approximately \$8,536².
- The total cost per dwelling unit for regional solid waste is approximately \$680³.
- The total cost per dwelling unit for regional parks is approximately \$250⁴.
- For Administrative infrastructure (e.g., administrative and operational buildings, vehicles, equipment), the total cost per dwelling unit is approximately \$223⁵.

¹ Asset values are based on data from a variety of sources. Cost data is based on available information which reflects a like-for-like (in-kind) replacement

² Asset values based off the 2022 Water Services State of Assets Report conducted in 2021; currently being updated for release in 2027

³ Asset values based on insured value, may not reflect actual replacement cost

⁴ Asset values based off the 2021 Regional Parks State of Assets report conducted in 2020; current asset management valuation work is underway. This does not include the land value of undeveloped regional parkland.

⁵ Asset values for buildings based on BC Assessment data; may not reflect actual replacement cost.



2.3.2.2.2 TransLink

TransLink's purpose is to provide a regional transportation system that moves people and goods, and supports the regional growth strategy, provincial and regional environmental and emission reduction objectives, and the economic development of the transportation service region. TransLink is responsible for planning, constructing and maintaining capital assets, infrastructure, facilities, and property required for the regional transportation system including: rail rapid transit guideways, stations, and storage, maintenance, and operations facilities for fleets of passenger ferries, buses, and trains; TransLink owned roads and bridges; walking and cycling infrastructure near transit; and technology assets.

TransLink currently levies DCCs on new development across the region, although they only cover a small amount of growth-related transportation infrastructure costs. The remainder of funding comes from provincial and federal contributions, regional taxes, borrowing, and other revenues. TransLink has published a 10-year investment plan, which identifies approximately \$7.8 billion in tangible capital assets in 2025, growing to \$12.5 billion in 2034. TransLink has committed to over \$12 billion in capital expenditures between 2025-2034, most of which is to deliver service improvements for existing regional population and maintain and upgrade existing assets¹.

Based on the existing level of infrastructure provided by TransLink as of 2025, the cost per dwelling unit is approximately \$6,224, which, when applied to future growth, translates to a cost of growth of approximately \$3.55 billion.

TransLink has also identified \$28.4 billion in unfunded capital projects in the *Access for Everyone* plan to address future growth needs and increase existing service levels, representing priorities over the next 10-15 years from the Regional Transportation Strategy, *Transport 2050*².

After factoring in the incremental \$24.85 billion identified through this plan, this translates to a cost of growth of \$19,924 per new dwelling unit.

¹ <https://www.translink.ca/-/media/translink/documents/plans-and-projects/ten-year-investment-plan/public-consultation/2025-investment-plan.pdf>

² translink.ca/-/media/translink/documents/plans-and-projects/regional-transportation-strategy/transport-2050/technical-documents/transport-2050-10-year-priorities-high-level-cost-estimates-2.pdf. Note: this does not include the UBCx Skytrain project being led by the Province as the cost estimate is not currently available.



2.3.2.2.3 Total Cost per Dwelling for Regional-Level Infrastructure (Metro Vancouver and TransLink)

Based on the quantity of assets, the replacement costs of infrastructure currently utilized to provide regional-level infrastructure, and the future capital identified, the total cost of infrastructure is approximately \$45,614 per dwelling unit, with \$25,690 the responsibility of Metro Vancouver and \$19,924 the responsibility of TransLink.

Table 2-4 below provides a summary of the infrastructure type, total replacement cost, quantity and quality per dwelling unit, as well as the cost per dwelling unit for each service, where applicable.

Table 2-4
Current Infrastructure Service Levels – Regional-Level Agencies

Infrastructure Category	Total Replacement Cost	Cost (per dwelling)
Metro Vancouver		
Regional Wastewater	\$19,898,810,000	\$16,001.74
Regional Water	\$10,614,300,000	\$8,535.55
Regional Solid Waste	\$845,090,000	\$679.58
Regional Parks	\$311,200,000	\$250.25
Regional Administrative/Operations	\$277,306,000	\$223.00
Metro Vancouver Total	\$31,946,706,000	\$25,690.12
TransLink		
Existing Infrastructure Service Level	\$7,739,900,000	\$6,224.21
Identified Future Capital*	\$24,847,360,000	\$13,699.56
TransLink Total**	\$7,739,900,000	\$19,923.77
Regional Agencies Total	\$39,686,606,000	\$45,613.89

* \$7.74 billion represents the replacement cost of existing TransLink infrastructure, on a per dwelling unit basis. Future needs would be \$3.55 billion to maintain the existing level of service. The \$24.85 billion represents future capital costs identified in the Access for Everyone Plan incremental to the existing level of service. The per-dwelling-unit cost for identified future capital is calculated based on existing and anticipated growth in dwelling units.

** TransLink total replacement cost includes only the existing service level infrastructure total, as the identified future capital represents future increases in the level of service. TransLink's total cost per dwelling includes existing and future anticipated levels of service increases.



2.3.2.3 *Member Jurisdictions*

2.3.2.3.1 **Local Infrastructure**

The member jurisdictions currently provide infrastructure related to water, wastewater, drainage/stormwater, fire, police, community services, parks and cemeteries, and administration¹. The population of the member jurisdictions within Metro Vancouver was noted in Section 2.2. Note that the analysis herein estimates the total replacement cost and total costs per dwelling unit for all member jurisdictions. While the investment per dwelling unit may vary between each individual jurisdiction, the following analysis provides for an average across the region.

The various types of infrastructure were evaluated based on the survey provided to the member jurisdictions. Not all member jurisdictions were able to respond to the survey in the requested timeframe. As such, assumptions were utilized to impute the data for those Member jurisdictions. Further details on these assumptions are provided in the following subsection.

The evaluation of the cost per dwelling unit associated with the current level of infrastructure has been calculated by assessing the replacement cost of each asset category and the quantity of assets per dwelling unit. The analysis is summarized for the various infrastructure types as follows:

- With respect to roads and public works infrastructure, the total cost per dwelling unit is approximately \$23,095 and \$1,652, respectively, which provides for roads, bridges/tunnels, active transportation, public works facilities, vehicles and equipment.
- Community services provide for arenas, pools, sport centres, library-related facilities and equipment, theatres, museums, community centres, and cultural facilities (public art galleries, museums, archive buildings, performing arts theatres, Indigenous cultural facilities, etc.). The total cost per dwelling unit for community services is approximately \$12,357.
- The total cost per dwelling unit for water and wastewater infrastructure is approximately \$10,917 and \$8,784, respectively. This infrastructure includes storage tanks, pump/lift stations, and linear assets (pipes).

¹ Note: Some member jurisdictions also own and maintain solid waste infrastructure. Two member jurisdictions noted in their survey responses that they each own and maintain one (1) transfer station. Transfer stations have been excluded from the analysis due to limited data availability. This has been noted in Section 1.3: study limitations.



- Infrastructure related to drainage/stormwater provide for pump stations, ponds, culverts, as well as linear assets (pipes). The total cost per dwelling unit for the drainage/stormwater service is approximately \$9,102.
- With respect to parks and cemetery infrastructure, the total cost per dwelling unit is approximately \$3,910, which provides for cemetery facilities, vehicles and equipment, and the land value of local parks, trails, and outdoor areas, park amenities, and park maintenance vehicles.
- For fire and police infrastructure, the total cost per dwelling unit for providing related facilities, vehicles, specialized vehicles and equipment is approximately \$1,607 and \$1,338, respectively.
- For administrative and animal control infrastructure, the total cost per dwelling unit is approximately \$1,390. This includes administrative buildings, parking lots, and vehicles as well as animal control buildings, vehicles and equipment.

Based on the array of infrastructure provided by member jurisdictions, the total cost is approximately \$74,151 per dwelling unit.

Table 2-5 below provides a summary of the quantity and quality per dwelling unit, as well as the cost per dwelling unit for each type of infrastructure.



Table 2-5
Current Infrastructure – Average of all Metro Vancouver Member Jurisdictions, adjusted by population

Service Category	Sub-Component	Estimated Total Replacement Cost*	Unit of Measure	Cost (per Unit of Measure)	Quantity (per dwelling)	Cost (per dwelling)
Roads	Roads	\$25,092,690,000	km of roadway	\$2,248,943.66	0.00907 km of roadway	\$20,408.29
	Bridge	\$647,370,000	No. of bridges	\$1,771,205.81	0.00030 No. of bridges	\$526.52
	Active Transportation Roads	\$2,655,840,000	km of active transportation	\$321,877.80	0.00671 km of active transportation	\$2,160.03
Roads	Sub-total	\$28,395,900,000			Sub-total	\$23,094.84
Community - Recreation	Indoor Ice Arena	\$790,660,000	sq.m of building area	\$4,103.23	0.15672 sq.m of building area	\$643.05
	Indoor Pool Building	\$923,290,000	sq.m of building area	\$11,477.23	0.06543 sq.m of building area	\$750.92
	Multi-Purpose Sport Centre	\$2,031,310,000	sq.m of building area	\$5,797.05	0.28499 sq.m of building area	\$1,652.10
Community - Library	Library Facility	\$845,760,000	sq.m of building area	\$6,754.35	0.10184 sq.m of building area	\$687.87
	Library Vehicle	\$1,470,000	No. of vehicles	\$70,000.00	0.00002 No. of vehicles	\$1.19
	Library Material	\$239,440,000	No. of items	\$35.67	5.45996 No. of items	\$194.74
Community - Art and Culture	Performing Arts Theatre	\$6,982,630,000	sq.m of building area	\$11,517.37	0.49309 sq.m of building area	\$5,679.09
	Art Gallery, Museum, and Archive Building	\$702,080,000	sq.m of building area	\$6,024.02	0.09479 sq.m of building area	\$571.01
	Indigenous Culture Facility	\$7,350,000	sq.m of building area	\$6,024.02	0.00099 sq.m of building area	\$5.97
	Community Centre	\$2,669,310,000	sq.m of building area	\$9,700.81	0.22379 sq.m of building area	\$2,170.99
	Other Art and Culture Facility	\$0	sq.m of building area	\$0.00	0.13572 sq.m of building area	\$0.00
Community	Sub-total	\$15,193,300,000			Sub-total	\$12,356.94
Water	Water Storage	\$0	No. of tank	\$0.00	0.00021 No. of tank	\$0.00
	Water Pump Station	\$429,840,000	No. of stations	\$2,360,573.07	0.00015 No. of stations	\$349.59
	Water Linear Asset	\$12,993,150,000	metre of linear pipe	\$1,469.98	7.18890 metre of linear pipe	\$10,567.54
Water	Sub-total	\$13,422,990,000			Sub-total	\$10,917.13
Drainage/Stormwater	Drainage Pump Station	\$1,092,030,000	No. of stations	\$8,691,254.22	0.00010 No. of station	\$888.16
	Drainage Pond	\$573,790,000	No. of ponds	\$875,576.92	0.00053 No. of pond	\$466.68
	Drainage Facility	\$760,660,000	No. of ponds	\$875,576.92	0.00071 sq.m. of building area	\$618.66
	Culvert (per m)	\$1,933,770,000	metre of linear culvert	\$43,620.73	0.03606 metre of linear culvert	\$1,572.77
	Drainage Linear Asset	\$6,830,860,000	metre of linear culvert	\$835.98	6.64569 metre of linear culvert	\$5,555.65
Drainage	Sub-total	\$11,191,110,000			Sub-total	\$9,101.92
Wastewater	Lagoon System	\$0	No. of lagoon systems	\$0.00	#DIV/0! No. of lagoon systems	\$0.00
	Wastewater Pump/Lift Station	\$480,410,000	No. of stations	\$1,131,178.34	0.00035 No. of stations	\$390.73
	Wastewater Storage Tank	\$0	No. of tank	\$0.00	#DIV/0! No. of tank	\$0.00
	Wastewater Linear Asset	\$10,319,480,000	metre of linear pipe	\$1,317.27	6.37151 metre of linear pipe	\$8,393.00
Wastewater	Sub-total	\$10,799,890,000			Sub-total	\$8,783.72



Table 2-5 (Continued)
Current Infrastructure Service Levels – Average of all Metro Vancouver Member Jurisdictions, adjusted by population

Service Category	Sub-Component	Estimated Total Replacement Cost*	Unit of Measure	Cost (per Unit of Measure)	Quantity (per dwelling)	Cost (per dwelling)
Parks	Developed Parkland	\$1,160,430,000	Hectares of parkland	\$200,000.00	0.00472 Hectares of parkland	\$943.80
	Undeveloped Parkland	\$275,760,000	Hectares of parkland	\$50,000.00	0.00449 Hectares of parkland	\$224.28
	Park Amenity and Other Sport Facility	\$693,980,000	No. of items	\$251,134.26	0.00225 No. of items	\$564.42
	Park Trail	\$6,530,000	metre of trail	\$184.85	0.02875 metre of trail	\$5.31
	Outdoor Specialty Area	\$69,770,000	No. of facility	\$200,000.00	0.00028 No. of facility	\$56.74
	Parks Vehicle	\$160,740,000	No. of vehicles	\$80,000.00	0.00163 No. of vehicles	\$130.73
	Sub-total	\$4,807,940,000			Sub-total	\$3,910.38
Cemetery	Cemetery Facility	\$2,433,980,000	sq.m of building area	\$5,381.95	0.36782 sq.m of building area	\$1,979.60
	Cemetery Vehicle & Equipment	\$6,750,000	No. of vehicles and equipment	\$80,000.00	0.00007 No. of vehicles and equipment	\$5.49
Parks and Cemetery	Sub-total	\$4,807,940,000			Sub-total	\$3,910.38
Public Works	Public Works Facility	\$468,960,000	sq.m of building area	\$5,381.95	0.07087 sq.m of building area	\$381.41
	Public Works Vehicle & Equipment	\$1,561,920,000	No. of vehicles and equipment	\$103,727.00	0.01225 No. of vehicles and equipment	\$1,270.34
Public Works	Sub-total	\$2,030,880,000			Sub-total	\$1,651.74
Fire	Fire Facility	\$792,320,000	sq.m of building area	\$7,884.56	0.08173 sq.m of building area	\$644.40
	Fire Vehicle	\$1,159,180,000	No. of vehicles	\$1,738,565.05	0.00054 No. of vehicles	\$942.78
	Fire Specialized Vehicle	\$6,840,000	No. of specialized vehicles	\$50,000.00	0.00011 No. of specialized vehicles	\$5.57
	Fire Equipment	\$17,100,000	No. of equipment	\$4,977.33	0.00279 No. of equipment	\$13.91
Fire	Sub-total	\$1,975,440,000			Sub-total	\$1,606.66
Administrative	Administrative Facility	\$1,264,950,000	sq.m of building area	\$5,274.31	0.19506 sq.m of building area	\$1,028.81
	Administrative Vehicle	\$22,910,000	No. of vehicles	\$50,000.00	0.00037 No. of vehicles	\$18.63
	Administrative Equipment	\$367,350,000	No. of equipment	\$7,792.43	0.03834 No. of equipment	\$298.77
	Animal Control Facility	\$46,230,000	sq.m of building area	\$8,283.65	0.00454 sq.m. of building area	\$37.60
	Animal Control Vehicle	\$2,210,000	No. of vehicles	\$70,000.00	0.00003 No. of vehicles	\$1.80
	Animal Control Equipment	\$5,550,000	No. of equipment	\$5,000.00	0.00090 No. of equipment	\$4.52
Administrative	Sub-total	\$1,709,200,000			Sub-total	\$1,390.12
Police	Police Facility	\$1,423,740,000	sq.m. of building area	\$6,189.24	0.18709 sq.m. of building area	\$1,157.95
	Police Vehicle	\$149,630,000	No. of vehicles	\$65,000.00	0.00187 No. of vehicles	\$121.70
	Police Special Vehicle	\$6,560,000	No. of specialized vehicles	\$50,000.00	0.00011 No. of specialized vehicles	\$5.34
	Police Equipment	\$64,970,000	No. of equipment	\$11,110.50	0.00476 No. of equipment	\$52.84
Police	Sub-total	\$1,644,900,000			Sub-total	\$1,337.83
	Total	\$91,171,550,000			Total	\$74,151.28



2.3.2.3.2 Assumptions Utilized and Summary of Data

As noted, not all member jurisdictions were able to respond to the survey in the requested timeframe. As such, assumptions were utilized to impute the data for those local governments. For each infrastructure category, the following provides a summary of the number of local governments that responded and the total population of those local governments, which were used to estimate the quantity of assets per dwelling unit. Note that where responses were not provided but an Asset Management Plan was available, the Asset Management Plan information was utilized. This per dwelling unit amount was then used to estimate the total replacement costs for all local governments in the Metro Vancouver area. Table 2-6 provides a summary of the assumptions utilized, along with the source of the replacement costs.



Table 2-6
Assumptions and Data Summary

Service Category	Sub-Component	Number of Respondents	Population Related to Respondents	% of Metro Vancouver Total Population
Administrative	Administrative Facility	7	1,978,484	64%
	Administrative Vehicle	7	714,579	23%
	Administrative Equipment	2	108,313	4%
	Animal Control Facility	4	1,849,870	60%
	Animal Control Vehicle	2	391,419	13%
	Animal Control Equipment	1	38,942	1%
Water	Water Pump Station	9	1,526,751	49%
	Water Linear Asset	11	2,442,445	79%
Wastewater	Wastewater Pump/Lift Station	12	2,494,725	81%
	Wastewater Linear Asset	12	2,494,725	81%
Drainage/ Stormwater	Drainage Pump Station	9	2,335,523	76%
	Drainage Pond	7	2,205,951	71%
	Drainage Facility	4	1,713,810	55%
	Culvert (per m)	9	2,211,525	72%
	Drainage Linear Asset	12	2,445,013	79%
Road	Roads	11	2,442,445	79%
	Bridge	11	2,442,445	79%
	Active Transportation Roads	9	2,351,382	76%
Public Works	Public Works Facility	6	1,084,575	35%
	Public Works Vehicle & Equipment	9	1,635,354	53%
Fire	Fire Facility	9	2,266,585	73%
	Fire Vehicle	9	1,672,472	54%
	Fire Specialized Vehicle	8	1,580,039	51%
	Fire Equipment	8	1,453,742	47%
Police	Police Facility	7	1,804,673	58%
	Police Vehicle	6	1,188,868	38%
	Police Special Vehicle	4	305,844	10%
	Police Equipment	4	305,844	10%
Community - Recreation	Indoor Ice Arena	10	2,373,074	77%
	Indoor Pool Building	7	2,220,007	72%
	Multi-Purpose Sport Centre	9	1,615,225	52%
Community - Library	Library Facility	9	2,210,148	72%
	Library Vehicle	5	1,917,850	62%
	Library Material	4	1,106,510	36%
Community - Art and Culture	Performing Arts Theatre	7	2,149,514	70%
	Art Gallery, Museum, and Archive Building	7	2,149,514	70%
	Indigenous Culture Facility	3	1,583,626	51%
	Community Centre	9	2,247,899	73%
Parks	Developed Parkland	10	2,373,074	77%
	Undeveloped Parkland	10	2,373,074	77%
	Park Amenity and Other Sport Facility	11	2,442,445	79%
	Park Trail	9	2,224,837	72%
	Outdoor Specialty Area	10	2,373,074	77%
	Parks Vehicle	9	1,578,917	51%
Cemetery	Cemetery Facility	5	1,244,872	40%
	Cemetery Vehicle & Equipment	5	1,244,872	40%



2.4 Infrastructure and Service Level Deficits

An infrastructure deficit in a government is the gap between actual investments in maintaining the infrastructure and the ideal investments required in order to maintain the infrastructure. Infrastructure deficits often occur when assets like roads, water systems, and public buildings are aging, in poor condition, or lack sufficient capacity. The deficit represents the cost to repair, replace, or upgrade infrastructure beyond what the government is able to provide for within its budgeted amount. If not addressed, it can lead to higher long-term costs, service disruptions, and potential safety risks. Infrastructure lifespans vary based on type, but at a high-level, municipal assets tend to average the following useful lives:

- Water and wastewater facilities: 50 years
- Water and wastewater linear infrastructure: 80 years
- Facilities: 50 years
- Services related to a highway: 40 years
- Parkland development: 40 years
- Vehicles: 10 years
- Small equipment and gear: 10 years

Service level deficits arise when a government is not currently providing services to the recommended or Council-approved level. For example, through a parks and recreation master plan, a local government may aim to achieve a service level of 2.5 hectares of parkland for every 1,000 population. However, the current amount of parkland provided may only equate to 2.0 hectares of parkland per 1,000 population.

The analysis undertaken in section 2.3 provides a summary of the current replacement costs and number of assets provided in each of the jurisdictions, but does not account for infrastructure deficits or service level deficits. When the current costs per dwelling are applied to the anticipated growth in Section 3 to estimate the capital costs associated with growth, it is important to note that additional costs may be required to increase the target level of services and/or address current infrastructure deficits.

The following provides a qualitative discussion on the current service level and infrastructure deficits.



2.4.1.1 Province of British Columbia

2.4.1.1.1 Childcare

The Province currently provides 4.4 childcare spaces per every 10 non-school age children. The Federal government of Canada has set a target of 5.9 childcare spaces per every 10 children¹. Therefore, the province currently has a deficit of 1.5 spaces per every 10 children, or 0.04572 spaces per dwelling unit.

2.4.1.1.2 Hospitals and Public Health

The Province currently provides 1.95 hospital/public health beds per 1,000 people². Although the federal or provincial governments do not have targets of beds per capita set, the province lags behind other jurisdictions, including Canada's average of 2.6 beds per 1,000 people³. British Columbia continues to experience challenges related to growing wait times for patients visiting health facilities⁴. Although a deficit cannot be quantified, the literature suggests that one exists within the Province's health care system.

2.4.1.1.3 Long-Term Care

According to a report published by the Office of the Seniors Advocate of British Columbia and the Ministry of Health-projected publicly subsidized long-term care bed demand forecast, there is a deficit of 2,044 long-term care beds in the province. The deficit is anticipated to grow to 7,249 beds by 2030 and 16,858 beds by 2035⁵.

2.4.1.1.4 Education

The provincial government publishes capacity utilization data for all levels of education across the province. The province's education capacity is currently operating at 94% utilization, resulting in vacant seats and an overall surplus at the kindergarten, elementary, and secondary school levels. Although the province is currently operating at 94% utilization, select jurisdictions are operating over capacity, including the school districts of Burnaby (104%), Langley (105%), Maple Ridge-Pitt Meadows (101%), North Vancouver (104%), Surrey (103%), and West Vancouver (107%). This suggests that

¹ <https://www.policyalternatives.ca/news-research/cash-cow-assessing-child-care-space-creation-progress/#:~:text=Child%20care%20deserts%20remain,by%20roughly%2015%20percentage%20points>.

² <https://bcmj.org/presidents-comment/time-be-bold>

³ <https://bcmj.org/presidents-comment/time-be-bold>

⁴ <https://www.capitaldaily.ca/news/hospital-wait-times-86-increase-in-patients-leaving-er-without-seeing-a-doctor>

⁵ <https://www.seniorsadvocatebc.ca/app/uploads/sites/4/2025/07/From-Shortfall-to-Crisis-Report.pdf>



although the system may appear to have adequate capacity in aggregate, critical deficits in high-growth areas represent a major barrier to supporting anticipated growth.

Likewise, post-secondary institutions in the province are currently operating at 97% utilization, indicating vacant seats and a surplus.

2.4.1.2 Metro Vancouver

Metro Vancouver is responsible for delivering major capital projects to ensure regional infrastructure meets the needs of current and future populations. Metro Vancouver's current assets meet current community needs and current regulations; however, infrastructure such as water and wastewater facilities must often be built ahead of growth. Metro Vancouver's capital funding strategy includes a stable, continuous investment in infrastructure through its pay-as-you-go funding model, while funding significant longer-term projects through borrowing.

2.4.1.3 Member Jurisdictions

Among the survey respondents, 5 of the 10 identified being in a current infrastructure deficit ranging from \$371 per dwelling unit to \$6,944 per dwelling unit . Areas with older infrastructure will tend to have higher deficits and although information may not be readily available for other local governments, it is anticipated that some infrastructure deficit exists.



Chapter 3

Estimated Level of Investment Required to Accommodate Anticipated Growth



3. Estimated Level of Investment Required to Accommodate Anticipated Growth

3.1 Regional Growth Projections

3.1.1 Dwelling Unit Growth

As indicated in the regional housing needs report, Metro Vancouver is forecasted to grow by roughly 570,777 homes to 2041. Table 3-1 below summarizes the growth in dwelling units by 2041 for each dwelling type. Additionally, the table summarizes the 15-year average P.P.U. (persons per unit) for each dwelling type, and the overall weighted P.P.U. used to calculate costs per dwelling unit throughout the report. Appendix B details the P.P.U. numbers.

Table 3-1
Dwelling Unit and Persons per Unit Projections by 2041

Dwelling Type	Current Proportion of Overall Housing	Estimated Additional Dwelling Units to 2041	15-Year Average PPU	Weighted PPU
Low Density	18%	101,878	3.405	0.613
Medium Density	30%	171,136	3.028	0.908
High Density	52%	297,763	1.906	0.991
Total		570,777		2.512

3.2 Infrastructure Required to Support Growth

Dwelling Unit Growth

To accommodate the anticipated growth, the existing level of investment per dwelling unit and future anticipated additional capital per dwelling unit have been applied to the growth projections to determine the total investment needed for future growth. As noted above in Section 2.3, the level of investment per dwelling-unit is approximately \$81,317 for Provincial infrastructure, approximately \$25,690 for infrastructure provided by Metro Vancouver, approximately \$19,924 for infrastructure provided by TransLink, and approximately \$74,151 for infrastructure provided by the member jurisdictions. The total level of investment across all levels of government is approximately \$201,082 per dwelling unit. When the total investment per dwelling unit is applied to the forecasted



dwelling-unit growth in the region by 2041, this equates to a total cost of approximately \$114.77 billion. The analysis indicates that, for the Province, Metro Vancouver, TransLink, and member jurisdictions to provide the same level of investment per dwelling unit for the forecasted dwelling unit growth, plus additional investments in transportation infrastructure over the next 15 years, it will cost approximately \$114.77 billion.

Table 3-4
Cost of Infrastructure per Dwelling Unit to Support Growth in the Metro Vancouver Region to 2041

Cost of Growth	
Level of Investment per Dwelling	
<i>Province of B.C.</i>	\$81,317
<i>Metro Vancouver</i>	\$25,690
<i>TransLink</i>	\$19,924
<i>Member Jurisdictions</i>	\$74,151
Total Level of Investment per Dwelling Unit	\$201,082
Forecasted Dwelling Growth to 2041	570,777
Total Cost of Growth	\$114,772,885,659

3.3 Potential Areas for Further Analysis

The analysis set out in this report is undertaken at a high-level to provide an order of magnitude of the investment required to accommodate growth at multiple levels of government. This section provides a discussion with respect to potential areas of further analysis.

3.3.1 Impact of the Infrastructure Deficit

As identified in Section 3.2, the infrastructure investment required to accommodate the forecasted growth in the Metro Vancouver region is estimated at approximately \$114.77 billion. While this cost assumes that the current level of investment per dwelling-unit will be provided to the forecasted dwelling growth, it does not take into account the existing infrastructure deficit. As discussed above, several levels of government have identified infrastructure deficits and/or service level deficits in their asset inventory.

It is noted that the estimates provided are high-level and do not incorporate these infrastructure and/or service level deficits. All levels of government will need to consider



the additional cost burden of investing in new infrastructure while investing in reducing current infrastructure deficits. Further discussion on growth-related financing tools is provided in Section 4.

3.3.2 Scenario Testing of Analysis

As noted, the approach to the analysis in this report is to utilize the current replacement cost of infrastructure provided and assumes that the same relationship would be required to accommodate future growth. In practice, not all infrastructure would need to be expanded in a linear fashion. For example, due to economies of scale and potential efficiencies with utilizing current administration space, it is unlikely that administrative space would scale in line with dwelling unit growth in the same way that it would for other infrastructure, such as sewer or water. This may hold true for other infrastructure-related services as well. As such, further analysis could be conducted to review scenarios in which anticipated future needs are detailed, by service, to determine a more accurate estimate of the costs of growth.

In addition, infrastructure can be reviewed not just at an individual service level, but also by local government. Some local governments may have more infrastructure readily available whereas others may require significant investments. A review of infrastructure needed for each local government, by service, could be reviewed in further detail by individual member jurisdictions.

3.3.3 Operating Budget Impacts

In addition to initial capital expenditures related to new growth, there are also new operating costs associated with new development. In general, there are two types of operating expenditures to be considered with new development: costs associated with additional population and employment growth, and costs related to new infrastructure.

With population and employment growth, costs for services and programs will also increase. For example, additional growth will lead to increased staffing and operational requirements for services such as police, fire, recreation, building services, etc.

When new infrastructure is constructed for new growth, there are additional operating expenditures associated with the new assets that must be considered. For example, when a new facility, such as a water treatment plant or new recreation centre, is constructed, incremental operating costs associated with daily operations (e.g. staffing, materials, chemicals, hydro, etc.) must be factored into operating budgets.



As new development gives rise to new capital assets, governments will assume these assets as well as the future costs to repair and replace the infrastructure. Although there is an immediate benefit to local governments from incremental property tax and rate revenue, there will be an eventual cost as aging infrastructure must be replaced. This replacement of capital is often referred to as asset management or lifecycle costs. Local governments should plan and allocate funds annually to support the eventual replacement of existing assets.

These additional operating and lifecycle (asset replacement) expenditures will impact local governments' annual tax- and utility-supported budgets, and also need to be considered in addition to the initial capital investments when determining the ongoing costs related to new growth.

Detailed estimates of operating costs associated with new growth can be fully reviewed as part of a long-term financial plan.



Chapter 4

Growth-related Financing Tools



4. Growth-related Financing Tools

4.1 Overview

Local governments have the authority to impose various capital charges on new development to pay for new or expanded infrastructure to service that new development. These are one-time charges imposed on new development, typically at a specific stage of the development approval process (e.g., rezoning approval, subdivision approval, building permit issuance). Ultimately, these growth-related financing tools are utilized to reduce the burden on the taxpayer/ratepayer for funding infrastructure that is required to accommodate new development. The following subsections summarize the various growth-related financing tools that are available to local governments.

4.2 Summary of Growth-related Financing Tools

4.2.1 *Development Cost Charges (DCCs)*

Development cost charges (or development cost levies for the City of Vancouver) can be imposed by local governments on new development to assist in paying for certain infrastructure costs, such as roads, water infrastructure, sewer infrastructure, fire services, etc. These costs are in addition to what a developer would be required to construct as part of a subdivision (see Section 4.2.5).

DCCs can apply to all development types and can also vary by housing type (e.g. single detached dwellings, townhouses, apartments) and by non-residential sector (e.g. industrial, commercial, and institutional), such that the rates that are charged to new development reflect the relative demand for new infrastructure.

DCCs are a one-time charge imposed on new development either at the subdivision stage or building permit stage.

4.2.2 *Amenity Cost Charges (ACCs)*

Recent provincial housing legislation introduced ACCs as a new growth-related financing tool for new amenities which are required to support population and



employment growth. Amenities that can be funded through an ACC include items such as recreation facilities, day cares, youth centres, etc.

These charges are one-time fees for new developments and are imposed at either the subdivision or building permit stage.

4.2.3 Community Amenity Contributions (CACs)

CACs are cash or in-kind contributions provided by a development applicant for developments that are being rezoned, at the time of rezoning. CACs are intended to offset the cost of various community amenities that are associated with increased development densities permitted through rezoning. CACS are typically utilized for costs related to community facilities, affordable housing, child care, etc.

Whereas the financial contribution for DCCs and ACCs is a flat rate per unit type or per gross floor space to be built, the contribution for CACs can vary and often involves site-specific negotiations.

4.2.4 Density Bonusing

Density bonusing is a tool that allows for developers to build to a higher density than the base zoning allows for, in exchange for providing certain amenities, affordable housing, or cash contributions. The payment or provision of amenities reflects the additional need for community amenities to accommodate the added density.

A local government's zoning by-law may establish different density bonus zones across the municipality where density bonusing provisions would apply and enable development beyond base density, up to a specified maximum.

4.2.5 Subdivision Servicing Bylaws (for local infrastructure)

Local governments may establish a subdivision servicing bylaw that sets out the infrastructure and servicing required for the subdivision of land. The requirements set out in these bylaws are typically related to onsite infrastructure or infrastructure required to connect the subdivision to existing services. The works are localized and directly related to development within the subdivision (e.g., local roads, water distribution, sewage collection, fire hydrants, etc.).



4.2.6 Provincial and Federal Grant Funding

Given the limited financial tools available to municipalities and the high costs of infrastructure required for new growth, grant funding from provincial and federal levels of government is often needed to bridge the gap between available funds and the capital required to support new development. Grant funding can be utilized to fund critical housing-enabling infrastructure while reducing the need for DCC/ACC rate increases and/or tax/rate increases when growth-related financing tools are insufficient to fully fund infrastructure costs.

4.3 Provincial Financing Tools

The Province of BC relies on a range of financing tools to fund infrastructure, with a large reliance on taxation. The Province's key financial tools include personal and corporate income taxes, sales tax (PST), education property taxes, and carbon tax. In addition to taxation, the Province also utilizes user fees, licensing fees, and regulatory charges to fund specific programs such as components of the courts and justice system, provincial parks, driver's licenses and vehicle registration, etc. The province, like other levels of government, also utilizes federal grants, debt, partnerships, revenue from land sales and leases, and investment income.

4.4 Application of Financing Tools

4.4.1 Summary of Eligible Infrastructure

Table 4-1 below summarizes the infrastructure which can be funded by each of the growth-related financing tools noted above. Although capital costs related to most core infrastructure (e.g. water, wastewater, transportation, parks and recreation, etc.) can be funded through the growth-related financing tools noted above, there are a number of services which cannot be funded by these tools, such as:

- Administrative building expansions;
- New IT equipment;
- Vehicles and related equipment for the provision of services (e.g. fire trucks, police vehicles, snow plows, etc.); and
- Provincial and federal infrastructure (e.g. hospitals, schools, provincial highways, etc.).



Table 4-1
Eligible Infrastructure/Amenities for Growth-Related Financing Tools

Development Cost Charges	Amenity Cost Charges	Community Amenity Contributions	Density Bonusing	Subdivision Servicing	Provincial and Federal Grant Funding
Transportation	Community centres	Community amenities (e.g. facilities, park space, public art, etc.)	Community amenities (e.g. facilities, park space, public art, etc.)	Local road infrastructure	Critical Housing-Enabling Infrastructure
Sewage	Youth or senior centres	Childcare space	Childcare space	Localized water distribution	
Water	Recreational/athletic facility	Affordable Housing	Affordable Housing	Localized sewage collection	
Drainage	Library	Streetscape/ public space improvements	Streetscape/ public space improvements	Localized storm drainage collection	
Fire	Day care facility	Cash/in-kind contributions	Cash-in-lieu/ in-kind contributions	Fire hydrants	Other
Police	Public square				
Parks	Other related facilities				
Solid waste/ recycling facilities					

Note: if an amenity is included in the ACC bylaw, local governments cannot also include the amenity as part of community amenity contributions or density bonusing.



Chapter 5

Observations and Reflections



5. Observations and Reflections

5.1 Summary of Observations

The analysis undertaken as part of this study highlights the scale of infrastructure investment required to support anticipated housing growth across the Metro Vancouver region to 2041. Based on the current level of investment per dwelling unit, approximately \$114.77 billion in infrastructure investment will be required by 2041 to maintain existing service levels for the forecasted dwelling unit growth.

This estimate does not account for existing infrastructure deficits, indicating that the total funding requirement may be higher. Infrastructure deficits reflect historical challenges associated with maintaining and replacing aging infrastructure. In addition, not all jurisdictions were able to provide complete information on infrastructure deficits, suggesting that the total deficit across the region may be understated.

Infrastructure responsibilities are distributed across all levels of government, with the Province of B.C. responsible for an estimated 40% of the cost per dwelling unit estimated in this analysis, Metro Vancouver responsible for an estimated 13%, TransLink responsible for approximately 10%, and member jurisdictions responsible for the remaining 37% of investment. As noted, this analysis does not analyze the infrastructure responsibilities of the federal government.

Local governments face fiscal challenges in funding infrastructure. With an estimated investment level of over \$200,000 per dwelling unit across several levels of government, this places pressure on municipal, regional, and Provincial budgets. Metro Vancouver and its member jurisdictions have limited revenue tools, including property taxation, user fees, and growth-related funding mechanisms such as DCCs, ACCs, CACs, and density bonusing provisions. Some infrastructure categories are ineligible for cost recovery through these growth-related tools, thereby requiring reliance on other funding mechanisms, such as taxation and user fees. This creates a challenge for local governments, which need to balance accommodating growth, addressing existing infrastructure deficits, and maintaining affordability without significantly increasing property taxes.



5.2 Reflections

Considering the findings outlined above, reflections and recommendations have been identified to support sustainable financial planning and infrastructure delivery to accommodate future growth to 2041.

Recommendation #1

Consideration should be given to exploring alternative revenue tools to support infrastructure funding. Given the limitations of existing local government revenue tools, reliance on property taxes and growth-related charges may not be sufficient to address the scale of investment required. Opportunities for new funding mechanisms may warrant further exploration and collaboration with provincial and federal governments.

Recommendation #2

Local governments should effectively utilize available growth-related financing tools, including DCCs, ACCs, CACs, and density bonusing provisions. Ensuring that these charges are regularly reviewed and updated to reflect updated construction costs and growth-related infrastructure needs is important for ensuring cost recovery and reducing the burden on taxpayers and ratepayers. Further analysis should be undertaken in concert with strategic recommendation #3 to determine the long-term financial impact of constructing new infrastructure relative to the additional tax revenue generated from growth.

Recommendation #3

Metro Vancouver and local municipalities should continue to strengthen asset management policies and long-term financial planning to address current infrastructure and funding deficits and ensure they do not continue to grow. Stronger asset management policies may include the establishment of dedicated reserves to save for the long-term maintenance and ultimate replacement of the new assets.

Comprehensive asset management planning and long-term financial planning assist local governments in identifying lifecycle costs, saving for asset repairs and replacements, prioritizing infrastructure investments, and mitigating the risk of future infrastructure deficits. Through other financial impact analyses and long-term financial planning studies undertaken by Watson, it has been observed that, especially with the increase in capital costs arising from COVID-19 (e.g. material and equipment price



inflation, labour shortages, and higher post-pandemic interest rates), the additional tax and rate revenue generated from new development does not typically provide a net financial gain for local governments and in many cases, new development provides upward pressure on tax rates and water/wastewater rates. As part of the long-term financial planning processes, local governments can assess future anticipated tax and water/wastewater rate increases against affordability within their communities.

Recommendation #4

Efforts should be made to improve data consistency and reporting across all levels of government. Standardizing reporting for asset inventory, asset conditions, and infrastructure deficits could enhance future infrastructure funding analyses and help support informed decision-making at all levels of government.

Recommendation #5

At a high level, local government tools such as property taxes and development cost charges are primarily tied to land values, assessment growth, and development activity. While these tools can support servicing growth to some extent, there continues to be upward pressure on both DCCs and property taxes. The existing tax base is often relied upon to help finance new or expanded infrastructure.

By contrast, provincial and federal taxation tools, such as income taxes, sales taxes, and business taxes, generally grow more directly with population, economic activity, and consumption, and tend to scale as communities grow.

While the evaluation of taxation and funding tools was outside the scope of this project, one potential recommendation would be to identify the need for further study on this topic.

Such work could explore the range of available funding and taxation tools across levels of government, with a view to better understanding their respective strengths, limitations, and trade-offs, and how effectively they respond to population growth and associated infrastructure demand. This type of analysis could help inform future policy discussions regarding the most appropriate and sustainable funding approaches for growing communities.



5.3 Areas for Future Analysis

This study provides a high-level assessment of infrastructure demand and associated costs, but there are several areas where further analysis would enhance the analysis and provide for more detailed future planning.

Similar to recommendation #3, more detailed asset-level analysis at the local government level would help to better understand infrastructure needs by service area and refine cost estimates. Additionally, further examination of local government funding gaps is warranted to help quantify the funding shortfall and inform decisions around potential solutions.

Additional analysis of operating cost impacts associated with growth is also recommended. This study focuses mainly on the capital-related costs associated with growth, but understanding the increased costs associated with operating and maintaining capital assets would provide a more fulsome picture of the cost of growth.

Likewise, ongoing lifecycle costs are also not considered in this analysis. Lifecycle costs of assets are important in sustainable financial planning to ensure local governments have finances to repair or replace infrastructure when it reaches the end of its useful life, without having to issue debt and incur additional interest-related costs.

Finally, this analysis assumes the same level of infrastructure currently provided by local governments will be carried into the future. Consideration should be given to factors which might impact the future levels of service, including evolving wants and needs of residents, climate change, future risks, etc. These considerations would be important to help inform future analyses by ensuring infrastructure planning is responsive to changing conditions.



Appendix A

Sample of Distributed Survey

Appendix A: Sample of Distributed Survey

General/Administrative Services

Contact Information	2025 Information
Local Government:	City of Langley
Name:	Jane Smith
Email:	jsmith@xyz.ca

Survey Purpose

Watson & Associates Economists Ltd. is undertaking this survey on behalf of the Regional District of Metro Vancouver to compile useful statistical information on the assets controlled by the District's member municipalities. The information compiled by this survey will support a comprehensive infrastructure demand and costing analysis. This initiative is intended to inform municipal decision-making and advocacy efforts by identifying existing infrastructure levels, deficits, and investment needs, both current and future, across a wide range of service areas.

Your participation is critical to ensuring the accuracy and completeness of this analysis. Where direct data is unavailable, reasonable assumptions may be made in consultation with Metro Vancouver staff. The results will help guide future planning and funding strategies across the Region.

General	2025 Information
Does your organization have a documented asset management plan ? If so, what services does it cover?	
Please attach a copy or link:	
If not, has your organization conducted a financial plan to address asset management needs? If so, please attach with the survey response.	
Is there an identified infrastructure deficit (i.e. backlog), and what is the quantum of that deficit by service?	

Engineering Services

Water Assets	2025 Information
Water Storage Assets:	
Count:	
Water Pump Stations:	
Count:	
Water Pipes:	
Total Length (metres):	
Does your organization have any recently constructed assets for this service area? If so, please provide any details on costing, including the item, year of construction or purchase, the floor area (if applicable), capacity (if applicable), and length (if applicable).	

Wastewater Assets	2025 Information
Lagoon Systems (if applicable):	
Count:	
Wastewater Pump Stations:	
Count:	
Wastewater Lift Stations:	
Count:	
Wastewater Storage Tanks:	
Count:	
Wastewater Pipes:	
Total Length (metres):	88,000

Emergency Services

Fire Assets	2025 Information
Fire Facilities:	
Count:	
Total floor area (square metres):	
Land Vehicles:	
Count:	
Specialized Vehicles (including boats, trailers, ATVs, drones):	
Count:	
Equipment (excluding staff outfitting):	
Count:	
Staff Outfitting:	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	

Police Assets	2025 Information
Police Facilities:	
Count:	
Total floor area (square metres):	
Land Vehicles:	
Count:	

Community Services

Culture, Recreation and Sports Assets	2025 Information
Indoor Ice Arenas (Including Curling Rinks):	
Count:	
Total floor area (square metres):	
Indoor Pool Buildings:	
Count:	
Total floor area (square metres):	
Multi-Purpose Sports Centres:	
Count:	
Total floor area (square metres):	
Art Galleries, Museums, and Archive Buildings:	
Count:	
Total floor area (square metres):	
Libraries:	
Count:	
Total floor area (square metres):	
Library Vehicles:	
Count:	
Library Materials:	
Count:	



General/Administrative Services 	
Municipal/Administrative Services	2025 Information
Administration Buildings and Town Hall:	
Count:	
Total floor area (square metres):	
Administration Vehicles (Including by-law enforcement):	
Count:	
Administration and By-law Enforcement Equipment:	
Count:	
Animal Control Buildings:	
Count:	
Total floor area (square metres):	
Animal Control Vehicles:	
Count:	
Animal Control Equipment:	
Count:	
Stand Alone Parking Lots:	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	

Engineering Services 	
Does your organization have any recently constructed assets for this service area? If so, please provide any details on costing, including the item, year of construction or purchase, the floor area (if applicable), capacity (if applicable), and length (if applicable).	
Drainage/Stormwater Assets	2025 Information
Drainage/Stormwater Pump Stations:	
Count:	
Drainage/Stormwater Management Ponds and Stormwater Wetlands:	
Count:	
Other Drainage/Stormwater Management Facilities:	
Count:	
Culverts	
Count:	
Drainage/Stormwater Pipes:	
Total Length (metres):	85,000
Does your organization have any recently constructed assets for this service area? If so, please provide any details on costing, including the item, year of construction or purchase, the floor area (if applicable), capacity (if applicable), and length (if applicable).	
Road Assets	2025 Information
All Road Types:	
Centreline kilometers:	240
Bridges and Tunnels:	
Count:	
Active Transportation (Not on roadways, and not identified as park trails below):	
Total length in kilometers:	93
Does your organization have any recently constructed assets for this service area? If so, please provide any details on costing, including the item, year of construction or purchase, the floor area (if applicable), capacity (if applicable), and length (if applicable).	
Operations Assets:	2025 Information
Public Works/Operations Facilities (including sand and salt storage, garages, sheds and other storage buildings):	
Count:	
Total floor area (square metres):	
Public Works/Operations Vehicles (All fleet including personal vehicles, plows, excavators, backhoes, sidewalk machines, etc.):	
Count:	
Public Works/Operations Equipment (All equipment including tractors, trailers, generators, etc.):	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	

Emergency Services 	
Specialized Vehicles (Including ATVs, trailers, drones, aircrafts, boats, etc.):	
Count:	
Equipment (excluding staff outfitting):	
Count:	
Staff Outfitting:	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	

Community Services 	
Performing Arts Theatres:	
Count:	
Total floor area (square metres):	
Indigenous Culture Facilities:	
Count:	
Total floor area (square metres):	
Community Centres:	
Count:	
Total floor area (square metres):	
Other Culture, Recreation, and Sports Facilities not listed above:	
Count:	
Total floor area (square metres):	
Parks:	
Count (hectares of developed parkland):	
Count (hectares of undeveloped parkland):	
Park Amenities (including sports fields, sports courts, children's play structures, outdoor pools, splash pads, etc.):	
Count:	
Park Trails (not identified as active transportation under roads assets):	
Count:	
Total length in kilometers:	
Outdoor Specialty Areas (e.g. dog parks, skateparks, golf courses, marinas, ski hills, etc.):	
Count:	
Other Outdoor Sports Facilities not listed above:	
Count:	
Parks vehicles and equipment (All fleet including vehicles, zambonis, plows, excavators, backhoes, mowers, etc.):	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	
Cemeteries	2025 Information
Cemetery Facilities:	
Count:	
Total floor area (square metres):	
Cemetery Vehicles:	
Count:	
Cemetery Equipment:	
Count:	
Does your organization have any recently constructed buildings or investments in vehicles and/or equipment for any of the above services? If so, please provide any details on costing, including the item, year of construction or purchase, and the floor area (if applicable).	



Appendix B

Statistics Canada Persons Per Unit Assumptions



Appendix B: Statistics Canada Persons Per Unit Assumptions

Metro Vancouver Persons per Unit by Age and Type of Dwelling (2021 Census)

Age of Dwelling	LOW DENSITY - Single and Semi-Detached						Average PPU	
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	2.222	1.807	2.331	3.167	4.226	3.299		
6-10	-	1.913	2.475	3.121	4.203	3.433		
11-15	2.750	1.731	2.392	3.187	4.249	3.484	3.405	15-year
16-20	-	1.858	2.461	3.173	4.066	3.412		
20-25	-	1.922	2.234	2.997	3.907	3.240		
25-30	2.214	2.150	2.130	2.893	3.793	3.121		
30+	2.597	1.719	2.036	2.851	3.845	2.935		
Total	2.633	1.795	2.131	2.921	3.964	3.083		

Age of Dwelling	MEDIUM DENSITY - Rows and Apartment in Duplex						Average PPU	
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	1.725	1.676	2.412	3.163	4.368	2.955		
6-10	2.160	1.772	2.406	3.195	4.219	3.027		
11-15	2.400	1.685	2.426	3.225	4.431	3.100	3.028	15-year
16-20	2.667	1.675	2.430	3.189	4.465	3.080		
20-25	1.792	1.736	2.338	3.116	3.971	2.933		
25-30	2.882	1.601	2.295	3.070	3.675	2.877		
30+	2.108	1.524	2.202	3.056	3.691	2.806		
Total	2.114	1.617	2.304	3.112	3.969	2.909		

Age of Dwelling	HIGH DENSITY - Apartments < > 5 Storeys						Average PPU	
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	1.203	1.465	2.040	2.826	4.200	1.882		
6-10	1.183	1.456	2.076	2.976	3.864	1.865		
11-15	1.273	1.489	2.117	2.994	4.057	1.971	1.906	15-year
16-20	1.271	1.477	2.117	3.286	4.593	2.062		
20-25	1.253	1.466	2.074	3.161	3.960	1.964		
25-30	1.353	1.458	2.066	3.161	4.224	2.008		
30+	1.121	1.383	2.088	3.025	3.807	1.738		
Total	1.170	1.424	2.082	3.028	4.083	1.857		

Age of Dwelling	ALL DENSITY TYPES							
	< 1 BR	1 BR	2 BR	3/4 BR	5+ BR	Total		
1-5	1.301	1.513	2.144	3.082	4.286	2.442		
6-10	1.314	1.509	2.171	3.142	4.197	2.536		
11-15	1.457	1.517	2.181	3.179	4.302	2.594		
16-20	1.391	1.523	2.223	3.194	4.247	2.744		
20-25	1.363	1.510	2.135	3.064	3.929	2.541		
25-30	1.515	1.488	2.112	2.991	3.785	2.550		
30+	1.203	1.407	2.100	2.922	3.792	2.439		
Total	1.273	1.458	2.134	3.001	3.971	2.499		

Note: Does not include institutional population