

Esquimalt Development Capacity Study: Draft Findings Report

April 2026
Version 1.1

Prepared by Licker Geospatial Consulting, WATT Consulting
Group, Modus Planning and Design, & Mulholland & Parker
Land Economists

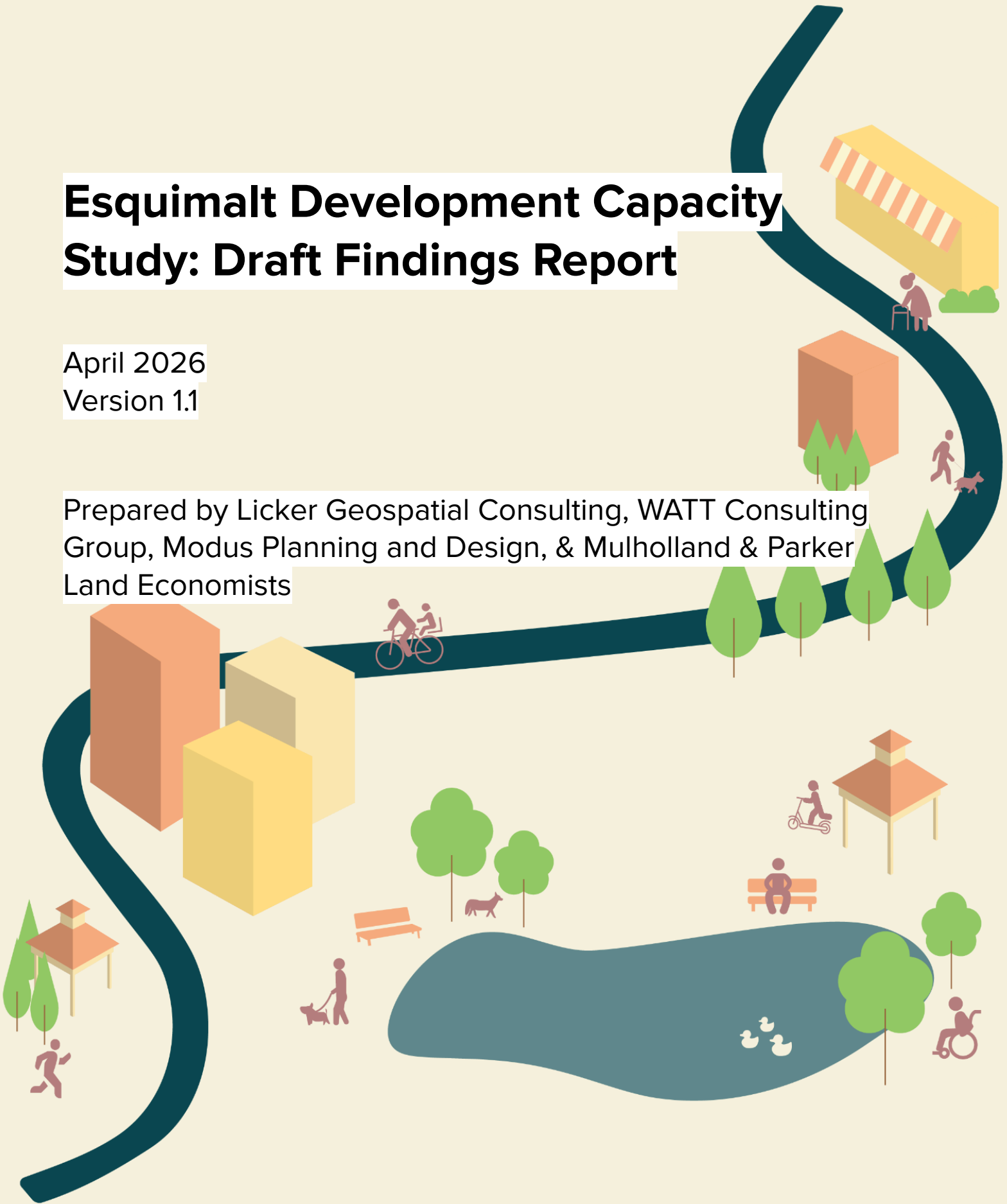


Table of Contents

List of Tables and Figures	3
Version Notes	4
Glossary	5
Executive Summary	6
Purpose of this Report	7
Overview	7
Structure of Report	7
Introduction & Background	8
Geographic Context	8
Regional Growth	9
Variables Considered	11
Key Findings	12
Engagement	14
Land Use & Current Development	15
OCP Land Use Capacity	15
Development Pipeline & Canadian Forces Base	18
Pace of Development	19
Utilities	22
Sanitary Sewer	22
Water	25
Electrical Distribution and Transmission	25
Transportation	27
Traffic	27
Public Transit	29
Recreation	31
Greenspace & Tree Canopy	34
Greenspace/Parks	34
Tree Canopy	37
Emergency Services	40
Fire	40
Ambulance	41
Police	42
Fiscal Considerations	43
Capital Reserve Funds	43
Conclusions/Implications	44
Appendix I - Maps	separate file

List of Tables and Figures

Introduction & Background	8
Figure 1. Map of regional context for Capital Regional District and Esquimalt.	9
Chart 1. Estimated number of households from 2011-2024 for municipalities in the Capital Regional District (BC Stats).	10
Figure 2. Map of population density within Esquimalt for 2024.	10
Key Findings	12
Table 1. Summary of key findings for Esquimalt Development Capacity Study.	12
Engagement	14
Land Use & Current Development	15
Figure 3. Map of Official Community Plan (OCP) proposed land use designations.	16
Figure 4. Map of the absolute capacity for parcels in Esquimalt.	16
Table 2. Summary of current and absolute capacity within proposed land use designations.	17
Figure 5. Map of the absolute unit gap for parcels in Esquimalt.	18
Figure 6. Map of recent and future developments in Esquimalt as well as constraints to development.	19
Chart 2. History of development by housing typology within Esquimalt from 2004 to 2024.	20
Table 3. Summary of units in development pipeline, excluding CFB Esquimalt.	20
Figure 7. Map showing the density of redevelopment potential for parcels in Esquimalt.	21
Utilities	22
Figure 8. Map of sanitary sewer infrastructure in Esquimalt, and areas where existing infrastructure may limit future growth.	23
Figure 9. Map of sanitary sewer infrastructure in Esquimalt. Areas where existing infrastructure may limit future growth are classified by difficulty to amend deficiencies to enable development.	24
Table 4. Summary of number of units impacted by sewer deficiency severity (difficulty to amend deficiencies).	25
Transportation	27
Figure 10. Map of existing average daily traffic volumes in Esquimalt.	28
Figure 11. Map of predicted future daily traffic volumes in Esquimalt.	29
Figure 12. Map of distance to nearest bus stop for all parcels in Esquimalt.	30
Recreation	31
Figure 13. Map of distance to nearest recreation centre located in Esquimalt for all parcels.	31
Table 5. Map of Official Community Plan (OCP) proposed land use designations.	32
Greenspace & Tree Canopy	34
Figure 14. Map of recreation facilities within the region surrounding Esquimalt.	34
Figure 15. Map of distance to nearest greenspace for all parcels in Esquimalt.	35
Figure 16. Map of large destination parks within the region surrounding Esquimalt.	36
Figure 17. Map showing the distance to nearest greenspace and absolute unit gap in Esquimalt	37
Table 6. Canopy Cover by Proposed Land Use Category in Esquimalt	37
Figure 18. Map showing the percent canopy cover by parcel in Esquimalt.	38
Figure 19. Map showing the percent canopy cover and absolute unit gap by parcel in Esquimalt.	39
Figure 20. Map showing the percent canopy cover and redevelopment potential by parcel in Esquimalt.	40
Emergency Services	40
Figure 21. Map of distance from Esquimalt fire halls to parcels within Esquimalt.	41
Figure 22. Map of drive times from the Esquimalt Ambulance Service Station to parcels within Esquimalt	42
Fiscal Considerations	43
Figure 24. Projected balance of Esquimalt's capital reserve fund.	44

Version Notes

Version	Date	Notes
Version 1	April 1st, 2026	<p>Working draft for committee engagements (DRC, APC, Committee of the Whole).</p> <p>Excluded from Version 1 and to be included in Version 2:</p> <ul style="list-style-type: none"> ● Quantitative water capacity analysis with City of Victoria Public Works staff (May 2026) ● Final comments on capacity from BC Hydro (April 2026) ● Additional discussion on Recreation following current state analysis for master planning efforts via Cornerstone (April 2026) ● Potential expansion of sanitary sewer capacity analysis with GeoAdvice (TBD) ● 2025 BC Assessment data will be released March 31st and data will be updated to capture the most recent development. ● Tree canopy impact analysis - to be completed after water capacity analysis and any expansion of sanitary sewer capacity are completed. ● Outcome and findings from engagement. ● Formatting of tables and charts following comments. ● Additional to noted above, update to and/or completion of: Executive Summary, Key Findings, Conclusions/Implications. ● Inclusion of additional capacity for CFB Esquimalt (complete, pending approval) ● Inclusion of analysis for police (complete, pending approval) ● Further discussion under Fiscal Considerations
Version 2	Estimated June 2026	Pending noted analyses and revisions in Version 1 and comments from committee and public engagements.
Version 3	Estimated September 2026	Pending comments from Council, July 20th 2026.

Glossary

The following table provides a few key terms and their definitions. Additional terms may be added for Version 2 following comments from staff and following engagement.

Absolute Capacity (Maximum Capacity)	Determines the maximum housing capacity that can be accommodated on a given parcel given its land use and minimum subdivision size.
Absolute Unit Gap (Additional Capacity)	Refers to the difference between the absolute capacity and the current number of units sourced from 2024 BIR.
BIR	2024 Building Information Report from BC Assessment, provided by the Township of Esquimalt in October 2025.
Development	This Study speaks specifically to residential development and does not consider non-residential growth
Development Pipeline	This includes sites with active and recently completed development permit applications. This includes developments from the Esquimalt Building Permit Tracker as of January, 2026 as well as developments from Table 1 of the Housing Matrix (August 2025), both provided by Esquimalt staff, with additions and modifications provided throughout the project.
OCP	Official Community Plan
Redevelopment Potential	A selection criteria for parcels that are likely to be redeveloped in the near term from the results of LGeo's modeling. Based on floor area ratio, density gap, improvement to land ratio and year built, it qualifies the relative development potential of any parcel in the township.

Executive Summary

This section will be completed for Version 2 following additional analyses (see Version Notes) and will discuss the following:

- Brief summary of the purpose of the study (one or two sentences)
- Summary of key findings
- How the findings may be used for decision making

DRAFT

Purpose of this Report

Overview

This report presents the draft findings of the Development Capacity Study prepared for the Township of Esquimalt by Licker Geospatial Consulting (LGeo) in partnership with WATT Consulting Group (WATT), Modus Planning and Design (Modus), and Mulholland & Parker Land Economists (MPLE).

The study evaluates how a range of variables may influence the Township's ability to realize the full development capacity envisioned through proposed land use designations, both over time and spatially across the municipality. In recent years, Esquimalt has experienced increasing development pressures with over 1,600 units currently active in the rezoning and development permitting process. Additionally, the Department of National Defence has several housing plans across CFB Esquimalt (Canadian Forces Base). The findings of the study are intended to support informed decision-making by Council and to provide staff, residents, developers etc. with a clearer understanding of how key variables may influence the Township's long-term development capacity and/or interplay with development and growth over time.

A technical report will be made available accompanying Version 2 of the draft report, which will provide more detailed information of data, assumptions and methodologies applied for this Study.

Structure of Report

The report structure will describe and discuss the results of the study as follows. Maps are provided in text and are also available for reference in *Appendix I - Maps*.

Report Section	Description
Key Findings	Provides a summary for how much development capacity Esquimalt has for the indefinite future given the combination of the findings for all of the variables considered.
Engagement	Provides a summary of the engagement conducted for this study and how comments received were considered and incorporated.
Introduction & Background	Provides a brief background for Esquimalt and its growth and development context in the region, as well as an introduction to the variables considered for this study.
Land Use & Current Development	Describes recent development in Esquimalt, the development capacity unlocked by proposed Official Community Plan (OCP) land use, a summary of the current development pipeline (rezonings and permits in process) and CFB Esquimalt (Version 2), as well as a discussion of the potential pace of development that could be anticipated in the future.
Utilities	Discusses the potential impacts to development capacity given the existing distribution systems for sanitary sewer, water, and electricity.
Transportation	Discusses the potential impacts to development capacity resulting from increases in traffic volume and public transit.

Recreation	Discusses potential impacts to development capacity in consideration of Esquimalt’s recreation services and facilities.
Greenspace & Tree Canopy	Discusses the potential impacts to development given access to green spaces, and potential impacts of development on tree canopy.
Emergency Services	Discusses the provision of fire services, ambulance services, and police services.
Fiscal Considerations	Discusses the financial considerations related to development and growth in Esquimalt.
Conclusion/Implications	Summarizes how the findings from this study can be used for decision making, any limitations in using these findings and closing remarks.

Introduction & Background

Geographic Context

- Esquimalt is located within the traditional homelands of two First Nations, the Ləkʷəŋən- speaking people, the Songhees Nation and Kosapsum (Xwsepsum) Nation.
- The name Esquimalt reflects its maritime setting. In the language of the native Coast Salish peoples, Es-whoy-malth means “place of shoaling waters”.
- Surrounded by water:
 - Strait of Juan de Fuca (southern)
 - Esquimalt Harbour (western)
 - West Bay (South east)
 - Gorge Waterway (north)
- North western border is the Songhees First Nation with City of Victoria to the east (Vic West Neighbourhood)

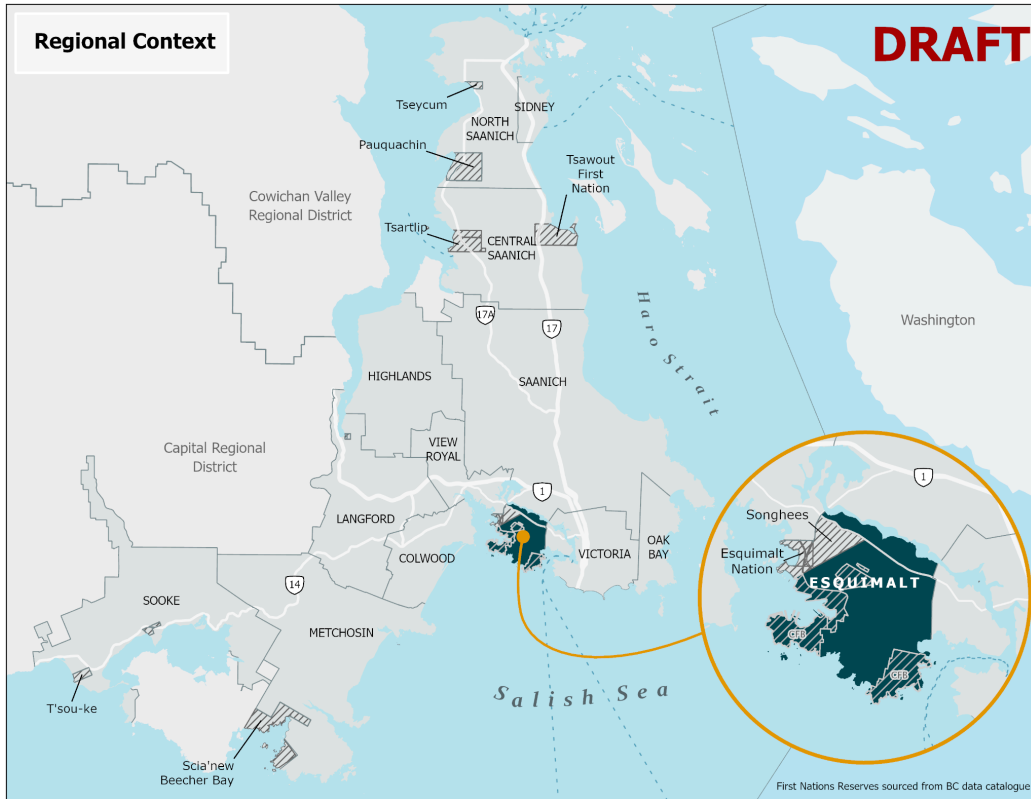


Figure 1. Map of regional context for Capital Regional District and Esquimalt.

Regional Growth

- Esquimalt is one of thirteen municipalities within the Capital Regional District.
- CFB Esquimalt, located primarily in Esquimalt, is one of the region's largest employers.
- Growth in the CRD has varied across municipalities (see figure below)

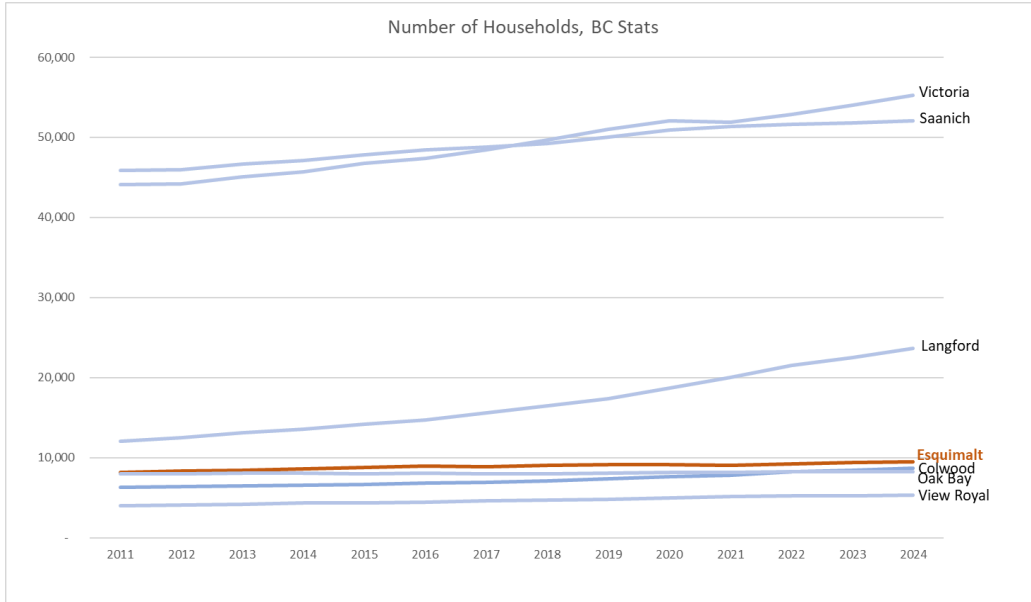


Chart 1. Estimated number of households from 2011-2024 for municipalities in the Capital Regional District (BC Stats).

- Esquimalt has shown an average growth of 1.2% in the number of households since 2011.
- Since 2022, Esquimalt has kept pace with the regional growth each year, surpassing it in 2023.

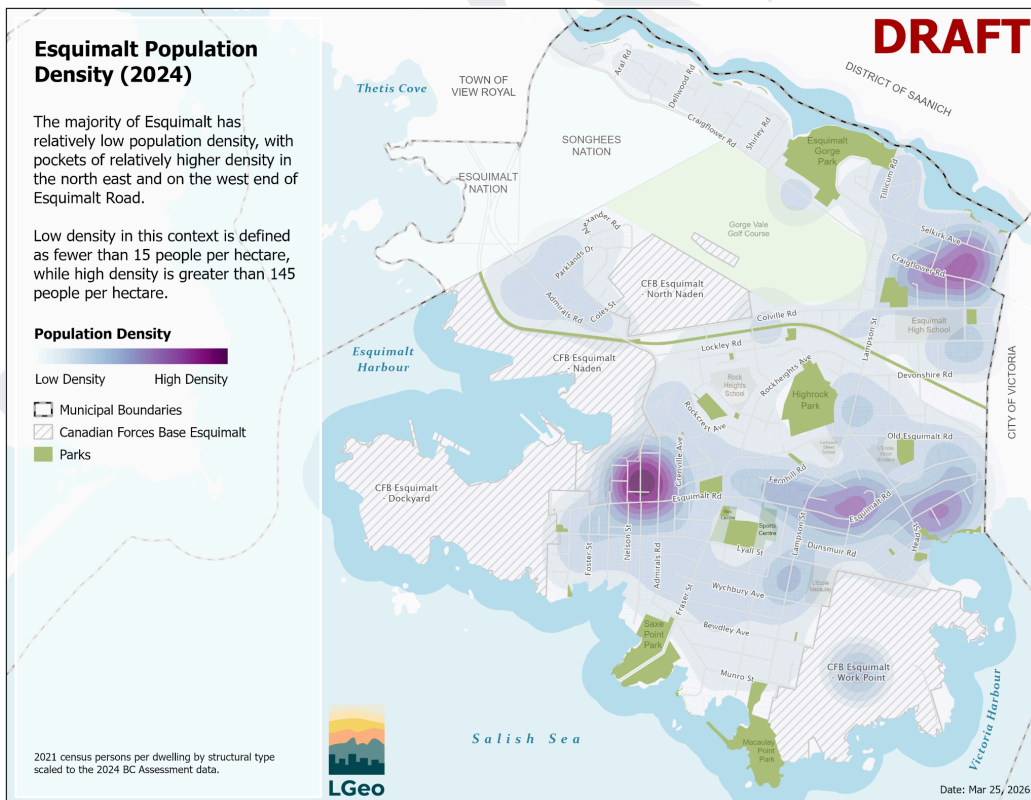


Figure 2. Map of population density within Esquimalt for 2024.

- Within Esquimalt, population is centred in the high density area near Admirals Rd and Esquimalt Rd, and the medium density areas along Esquimalt Rd and in northeast Esquimalt between Selkirk Ave and Craigflower Rd.

Variables Considered

- High level comments
 - The relationship of these variables with development are twofold - some variables *affect* development, while others see the *effects* of development.
 - Some variables provide a hard ceiling on development, namely, sanitary, water, and electrical. Sanitary, water, and electrical systems need to have capacity to support residential development. Without capacity, development cannot occur.
 - Other variables are conversely impacted by development - such as transit, or recreation. Development can occur regardless of the state of these variables, but development will have impacts on these variables, and the impacts will vary based on the form and intensity of development.
- Land Use
 - To ensure the Township has designated enough lands through OCP land use to accommodate its housing needs.
- Sanitary Sewer
 - Wastewater infrastructure provides a hard limit on development. If the infrastructure cannot support increased connections, then infrastructure upgrades need to be undertaken, or development needs to be funneled elsewhere.
- Water
 - Fire flow capacity is critical to development: an area with low water supply resulting in inadequate fire flow cannot support increased residential development.
- Electricity
 - With increased prioritization towards electrification at all levels of government across multiple policy levers, understanding the capacity of the electrical supply system to support increased growth is essential to both residential growth, and the maintenance of a healthy electrical system.
- Traffic
 - Increased residential development will result in more population utilizing road infrastructure within the township. Assessing expected changes in traffic intensity is needed to ensure that increased traffic remains within acceptable standards.
- Transit
 - Important to ensure added residential development is occurring within reasonable proximity to transit, and to know whether increasing development necessitates increases in transit servicing on impacted routes.
- Recreation & Parks
 - Access to recreation and parks is important for general resident wellbeing. Understanding access to parks and recreation can support planning efforts.
- Canopy
 - Canopy coverage is important for climate resilience and adaptation - included in the Township's Climate Adaptation Strategy. Development has the potential to impact development, as trees may be removed.
- Emergency Services: Fire, Ambulance, & Police
 - Increased development brings increased population, and understanding the intensity and location of development supports emergency services in planning the deployment of services.

Key Findings

Table 1. Summary of key findings for Esquimalt Development Capacity Study.

Variable	Development Capacity	Comments
Land Use & Current Development		
Land Use	30,830 units of total capacity available through proposed land use. There are currently 10,455 units (2024), yielding 20,375 units of additional capacity.	Approximately 58% of the development capacity is in Low Density and Medium Density Residential land uses at 27% and 30% respectively.
Utilities		
Sanitary Sewer	6,150 additional units (30%) have no deficiencies/constraints. 2,300 additional units (11%) - low difficulty to unlock. 5,780 additional units (28%) - medium difficulty to unlock. 6,440 additional units (31%) - high difficulty to unlock.	Sanitary sewer deficiencies refer to gravity sewer pipes, pump stations, and force mains—including surcharging caused by downstream bottlenecks which require upgrades to unlock full development potential. These upgrades have varying degrees of difficulty to address which have been categorized as low, medium and high.
Water	Not currently a constraint to future development for the next 20 years.	Assuming typical pace of development and based on qualitative discussion with City of Victoria Engineering & Public Works staff. Additional analysis coming May, 2026.
Electricity	Not a constraint to future development. Adequate supply for growth.	Based on engagement with BC Hydro. Additional comments coming April, 2026.
Transportation		
Traffic	Not a constraint to future development	Development in Esquimalt would create an increase in future traffic volumes. Modelling shows that all corridors would remain within the Transportation Association of Canada’s typical two-way average daily traffic threshold.
Transit	Not a constraint to future development	Based on current service levels, Esquimalt is adequately served with BC Transit’s existing services. Increased development in Esquimalt will support expansion of transit service levels consistent with BC Transit’s planning efforts.

Recreation & Greenspace		
Recreation	Not a constraint to future development - considerations for provision.	Esquimalt recreation services are all well used and “at or near capacity”. Cornerstone is actively producing a parks and recreation service report in Esquimalt and surrounding region; additional discussion to follow in Version 2.
Parks	Not a constraint to future development	Greenspaces are well distributed throughout Esquimalt, and the surrounding region has a large variety of national, provincial and regional parks within a 30-minute drive of all parcels. Increased development may impact provision.
Canopy	Not a constraint to future development	Protection of tree canopy is a priority for Esquimalt. Additional analysis on the impact of development in Version 2.
Emergency Services		
Fire	Not a constraint to future development - considerations for provision.	Location of the fire hall and mutual aid agreement with CFB Esquimalt provides adequate emergency response for all areas. Increases in provision may be required as growth occurs.
Ambulance	Not a constraint to future development - considerations for provision.	Location of the ambulance bay provides adequate emergency response for all areas. Increases in provision may be required as growth occurs.
Police	Not a constraint to future development	See section discussion for details.

Engagement

Engagement for the Development Capacity Study will be with the Advisory Planning Commission (APC), Design Review Committee (DRC), Committee of the Whole (Council), and the public through both a virtual and in-person open house. The engagement will focus on sharing the key findings of the Development Capacity Study and gathering feedback to inform the final report.

The following outlines the current schedule for engagement:

Consultation

- Design Review Committee, April 8th at 230pm
- Advisory Planning Commission, April 21st at 7pm
- Committee of the Whole, May 11th at 6pm

Public Engagement

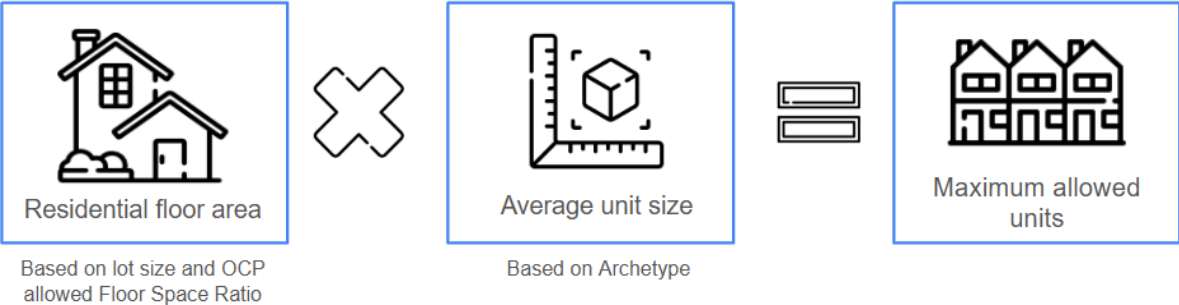
- Public Engagement
 - Virtual open house
 - In person open house, Thursday, June 11th from 3pm-7pm

Council Presentation

- July 20th, 2026

OCP Land Use Capacity

- Foundational for this Study to understanding capacity in Esquimalt is the maximum amount of capacity that is available based on the boundaries described by the OCP land use, which describes the vision for density and form.
- The OCP land use policy describes the maximum allowable density and form within each land use, which creates the theoretical limit for how many dwelling units can be on a lot.
- As such, the absolute capacity, or maximum capacity, in Esquimalt is a direct reflection of land use, which is shown in the figures on the following page.
- There are complexities not considered in the modeling for this Study including:
 - **Density bonusing** - where a developer may negotiate a higher density than allowed.
 - **Lot consolidation** - although lot consolidation was not explicitly modeled for this Study, the maximum number of units should still be representative as the maximum number of dwelling units is a function of lot size (see graphic below). Where this may not be the case is if lot consolidation occurs between two lots with different land uses.
 - **Economic feasibility** - the economy is uncertain and while economic impacts are qualitatively discussed, they were not modeled.
 - **Zoning** - although zoning does not align with OCP land use in some areas, the policies defined in the OCP are assumed to be the guiding principles for developer negotiations.
 - **Average realized density** - each of the land use designations describes a maximum density as a floor space ratio (FSR), which was used to derive the number of dwelling units. Observed recent development may not achieve those FSRs or may even achieve higher FSRs as a result of density bonusing. The maximum FSR has been used to determine the absolute capacity.
 - **Lot dimensions** - there may be lots that do not meet bylaw requirements of lot depth, minimum sizes, setbacks, etc. These specifications are not modeled explicitly and assume the built form produced by the prescribed FSR would be configured on the lot to meet these requirements.



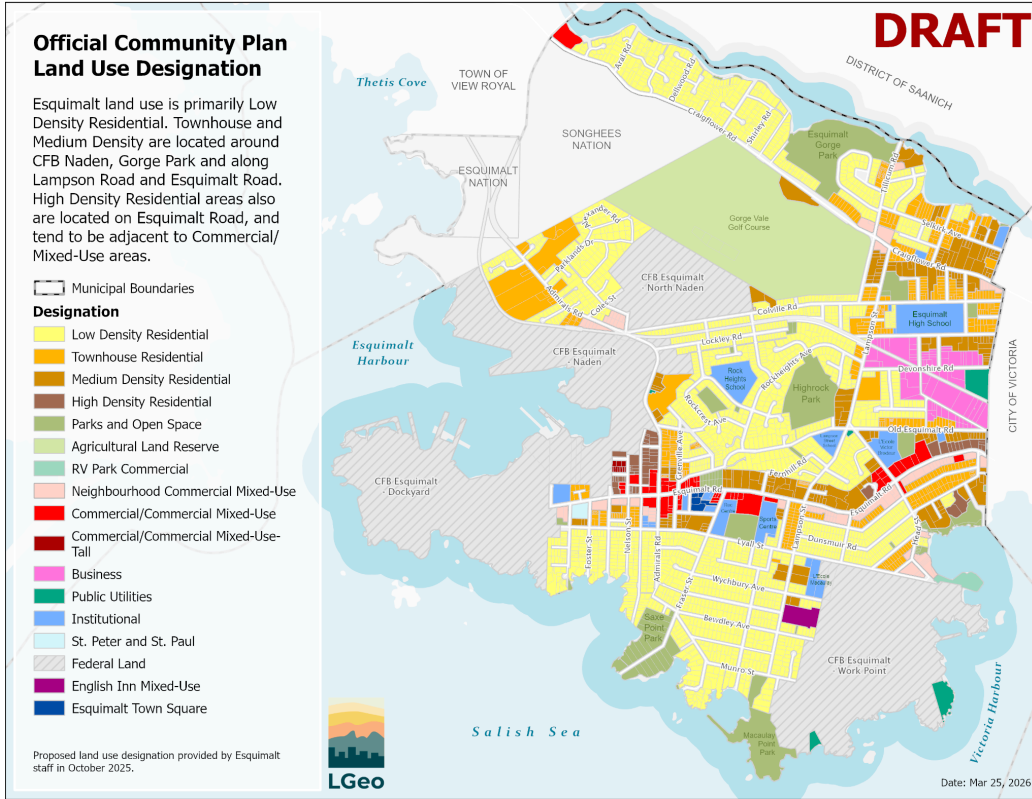


Figure 3. Map of Official Community Plan (OCP) proposed land use designations.

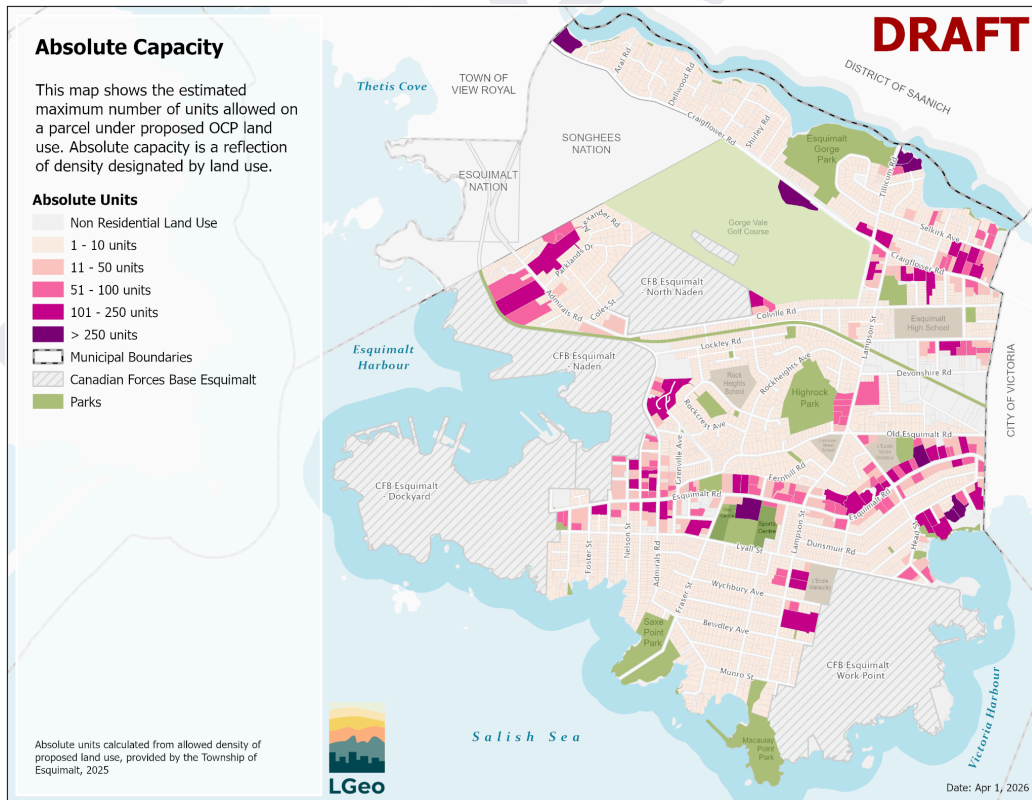


Figure 4. Map of the absolute capacity for parcels in Esquimalt.

- The majority of the land in Esquimalt is designated as Low Density Residential which previously allowed single detached homes. Currently, the provincial legislation of Bill 44 allows small-scale multi-unit housing (SSMUH) up to 4 units, and potentially up to six depending on frequency of transit, which is discussed further in the *Public Transit* section.
- The table below shows the land area for each land use, the number of current dwelling units (2024), and the number of maximum units given the maximum density allowed.
- From this analysis, Esquimalt has the maximum capacity under its land use to accommodate over 20,000 additional units in the community.
- The absolute capacity gap, shown in the figure below, is the difference between the maximum number of units given the density allowed by the land use and the number of current units. This figure shows spatially where that additional capacity exists in the township.
 - 58% of additional capacity is from increased density in Low Density Residential (27%) areas under Bill 44 coupled with its large land base, and in Medium Density Residential (30%) areas due primarily to the significant increase in maximum density (2 FSR) over average current density (0.5 FSR).
 - Overall, the average density currently in medium density residential across the township is ~0.5 FSR; however, since 2021, new construction has seen an average density of ~1.6 FSR.
 - Similarly for High Density Residential, Neighbourhood Commercial Mixed-Use and Commercial/Commercial Mixed Use the average density of construction since 2021 has been closer to the maximum allowed though not at max (see next section).
- The following sections of this report discuss the pace of development and adjustments to this capacity given infrastructure and services.

Table 2. Summary of current and absolute capacity within proposed land use designations.

	Land Area (hectares)	Current Number of Units (2024)	Units of Absolute Capacity Under Maximum Density	Additional Capacity from Land Use	Current Average Density	Maximum Density
Low Density Residential	170	3,013	8,345	5,332	1.33 unit/lot	Max units per lot following Bill 44 provincial guidelines
Townhouse Residential	44	1,116	2,214	1,098	0.3 FSR	0.7 FSR
Medium Density Residential	35	3,123	8,987	5,864	0.5 FSR	2 FSR
High Density Residential	6	606	2,453	1,847	0.7 FSR	3 FSR
Neighbourhood Commercial Mixed-Use	11	812	2,892	2,080	0.6 FSR	2 FSR
Commercial/Commercial Mixed-Use	9	964	3,994	3,030	0.9 FSR	3 FSR
Commercial/Commercial Mixed-Use-Tall	0	68	224	156	1 FSR	4.05 FSR
Federal Land	192	527	1,308	781	N/A	N/A
Other Land Uses	158	226	414	188	N/A	N/A
Total	626	10,455	30,831	20,376		

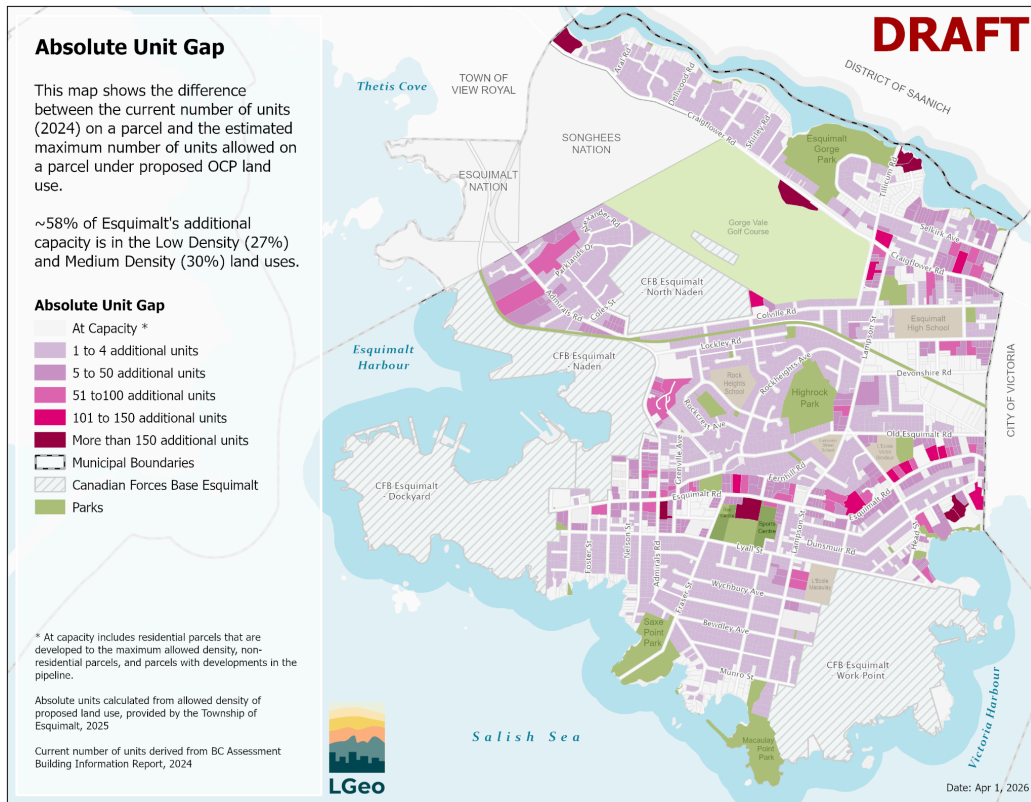


Figure 5. Map of the absolute unit gap for parcels in Esquimalt.

Development Pipeline & Canadian Forces Base

- From the data received, over 1,800 additional dwelling units (2,200 total new units replacing 420 current units) in the development pipeline, which includes projects with rezoning applications, development permit applications, or building permit applications.
- The inventory shown in the figure below includes developments from the Building Permit Tracker as of January, 2026 as well as developments from Table 1 of the Housing Matrix (August 2025), both provided by Esquimalt staff, with additions and modifications provided throughout the project.
 - Constructed developments are considered to be those with an assessment record from BC Assessment.
 - Because the BC Assessment data used to-date for this Study is from September of 2024, there may be developments that are constructed that are shown only as Active in the map.
 - Similarly, due to the complex and dynamic nature of permitting applications, there may be inconsistencies in number of units, locations, and active status due to when the data was received.

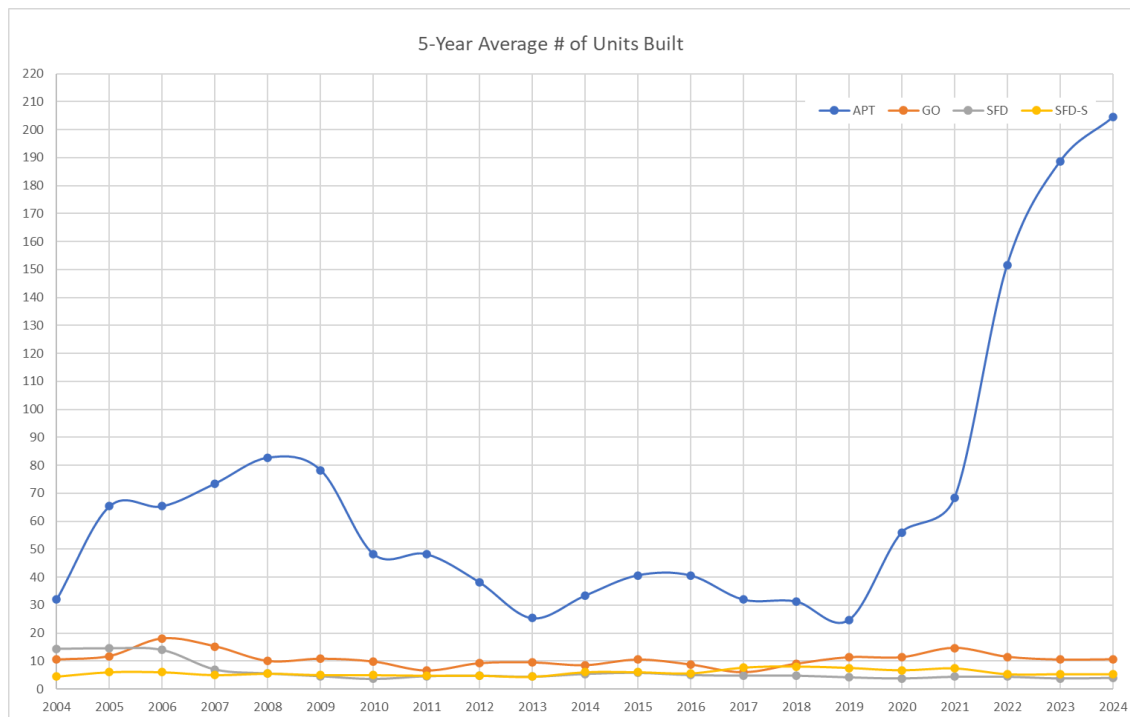


Chart 2. History of development by housing typology within Esquimalt from 2004 to 2024.

Table 3. Summary of units in development pipeline, excluding CFB Esquimalt.

New Form	Gross New Units	Demoed Units	Net New Units	Average Units Constructed/Year (2020-2024)	Years to Realize Capacity
Apartments	1,966	357	1,609	200	10
Apartment + Townhouse	227	41	186	125	2
Ground Oriented Multifamily	37	4	33	50	1
Single Detached	6	5	1	6	1
Single Detached with Suite	14	10	4	6	2
Small-scale Multi-Unit	14	2	12	50	1
Total	2,264	419	1,845	N/A	N/A

- With the units already constructed, and the development pipeline, 1,400 additional units would be required by 2041 to achieve the 20-year HNR target of 4,213.
- With the same pace and configuration of construction (more apartments than ground oriented), Esquimalt could expect to achieve those 1,400 units in a 6-year time span (~256 units per year).
- With the uncertainty in the economy, and particularly the potential inviability of certain development types, it is uncertain that the observed pace of development would continue as it has.

- Understanding that the 20,000 dwelling units of additional capacity has no sense of timing, redevelopment potential provides an analysis to consider timing. Redevelopment potential is a score designed to mimic a developer lens that identifies, relatively across the township, which parcels are the most likely to redevelop based on building age, utilization, and densification potential.
 - The additional capacity with the top 10% of likelihood of redevelopment including the development pipeline is approximately 6,500 net new units, which would take around 26 years to realize at the pace of development described above.
 - The map below shows the density of additional capacity that could come online in the next ~25 years. Density is shown as clusters of density are more likely to put pressure on infrastructure (sanitary sewer and water) and also provide insight into potential areas for planning priority.
 - This analysis is not prescriptive and does not describe where development will happen, but provides a perspective for discussion of where in the township housing is likely to increase as a result of additional capacity.

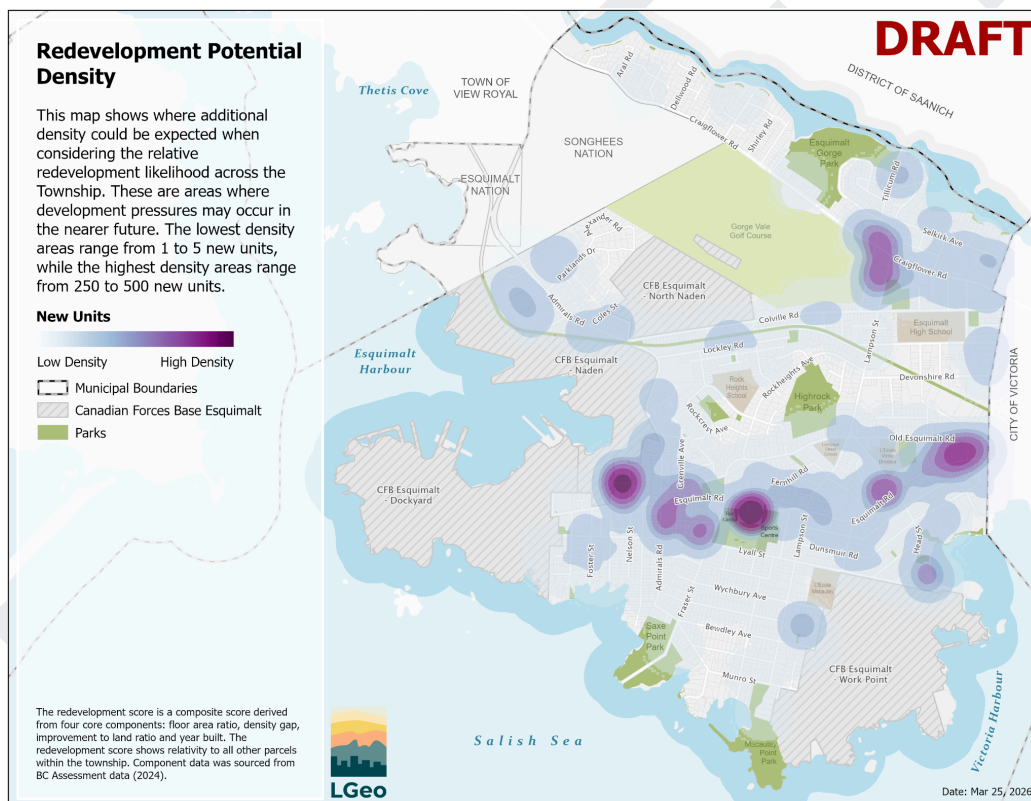


Figure 7. Map showing the density of redevelopment potential for parcels in Esquimalt.

Sanitary Sewer

Esquimalt's sanitary sewer system is operated through a shared responsibility between the Township and Capital Regional District. The Township is responsible for the maintenance, repair, and operation of the local sanitary sewer mains and network that carry sewage from homes and businesses to the CRD's systems. The CRD is responsible for overall wastewater treatment and the major trunk lines that transport sewage to the plant.

The Township owns, operates, and maintains approximately 57.3 km of gravity sewers, 3.8 km of forcemains, and 13 pump stations. As of 2024, approximately 23% (based on pipe length) of the Township's linear sanitary sewer network has exceeded its design life, indicating an existing backlog of asset replacement.

The Township's sanitary sewer system is a key variable that has and will continue to influence Esquimalt's ability to realize the full development capacity envisioned through proposed land use designations. To understand the Township's sanitary capacity, a detailed analysis was undertaken that applied the estimated future full build-out sewage generation to the existing sanitary sewer hydraulic model. Unit growth rate multipliers were established to identify capacity-deficient infrastructure and growth-limited parcel areas within Esquimalt's sanitary sewer system. The model also incorporated future climate change considerations, including updated stormwater infiltration and inflow (I/I) parameters, to help identify locations where servicing upgrades may be required.

This assessment represents a single full build-out growth scenario. No negative growth was assumed, and therefore no reductions to existing flows were applied within the model. The resulting deficiencies in gravity sewer pipes, pump stations, and force mains—including surcharging caused by downstream bottlenecks—are illustrated on the sanitary system model map below. Hatched areas indicate parcels where existing infrastructure is unable to accommodate full build-out flows.

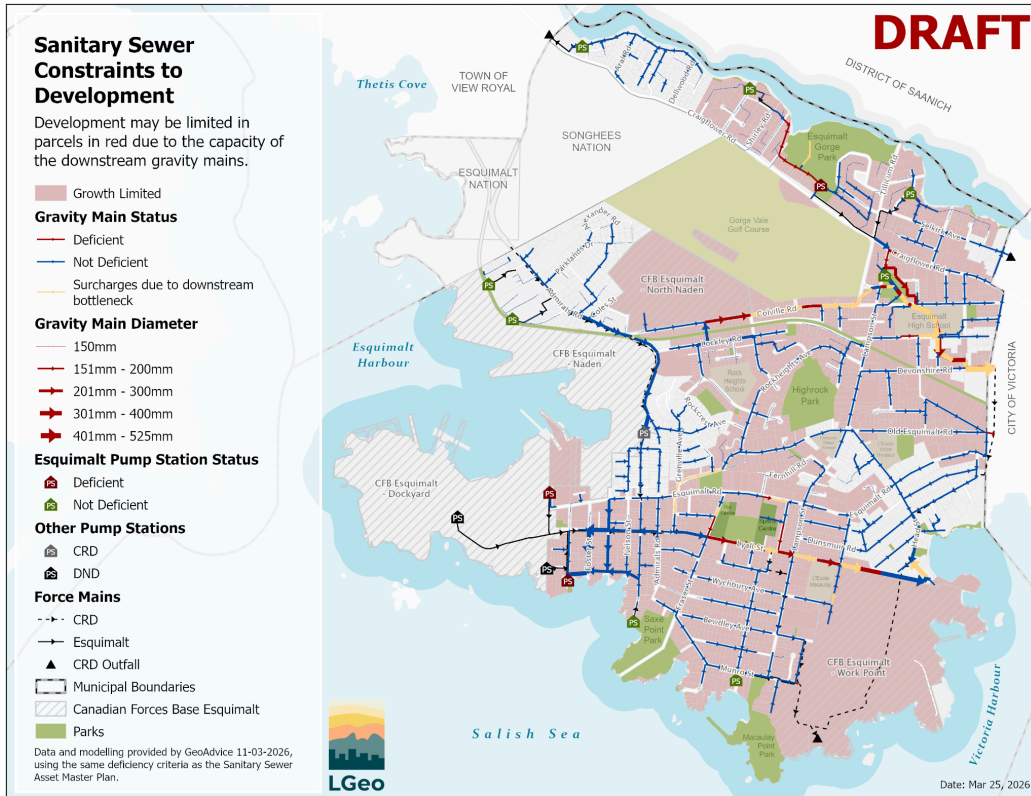


Figure 8. Map of sanitary sewer infrastructure in Esquimalt, and areas where existing infrastructure may limit future growth.

The results of the analysis were compared to the Township’s 2025 Sanitary Sewer Asset Management Plan, which included an evaluation of the overall condition and performance of the sanitary sewer system under both existing and future scenarios. The Sanitary Sewer Asset Management Plan emphasizes a proactive approach to infrastructure renewal, with priority projects identified primarily based on asset condition. The recommended gravity sewer upgrades are driven by deficiencies identified through CCTV inspections, rather than capacity limitations under either existing or future conditions. Priority 1 projects over the next 20 years are largely focused on gravity sewer infrastructure. The Plan recommends replacement of the Kinver, Lampson, and Luscombe pump stations within 10 years, and identifies the Grafton Pump Station and its associated force main as requiring upgrades under existing conditions. No other force main upgrades are currently recommended.

Comparing the recommendations in the Sanitary Sewer Asset Management Plan with the results of this study highlight several overlapping areas of concern, including gravity mains upstream of the Forshaw Lift Station, the network southeast of the Lampson Lift Station near Esquimalt High School, and systems along Colville Road and Lyall Street. There are several capacity constraints along trunk mains or downstream portions of the system, resulting in upstream growth limitations. In some cases, relatively small downstream pipes are the controlling constraint, meaning targeted upgrades could unlock larger upstream development areas such as near Fraser Street and the low-density southern areas of Esquimalt. In contrast, northern areas draining through the Lampson and Devonshire corridors present more complex and costly upgrade challenges due to the scale and extent of deficiencies.

The figure below identifies areas of high (dark pink), medium (light pink), and low (green) difficulty associated with addressing infrastructure deficiencies required to unlock full build-out growth. The map indicates that the northern and western areas of Esquimalt are considered the most challenging to service, primarily due to downstream constraints associated with the Lampson Pump Station and the upgrade requirements for the Grafton Pump Station and its associated force mains.

Areas identified as medium difficulty generally correspond to interior portions of the municipality. While these areas do not contain a significant number of capacity-deficient pipes, they are classified as moderate difficulty due to the complexity of proposed system modifications. In particular, the Sanitary Sewer Asset Management Plan includes a recommendation to re-route catchment areas along Lyall Street to the existing CRD trunk main, which presents greater approval and coordination challenges compared to typical municipal infrastructure upgrades.

Low difficulty areas are those where growth constraints are driven by relatively minor downstream bottlenecks. In these locations, targeted and localized infrastructure improvements would be sufficient to unlock additional development potential.

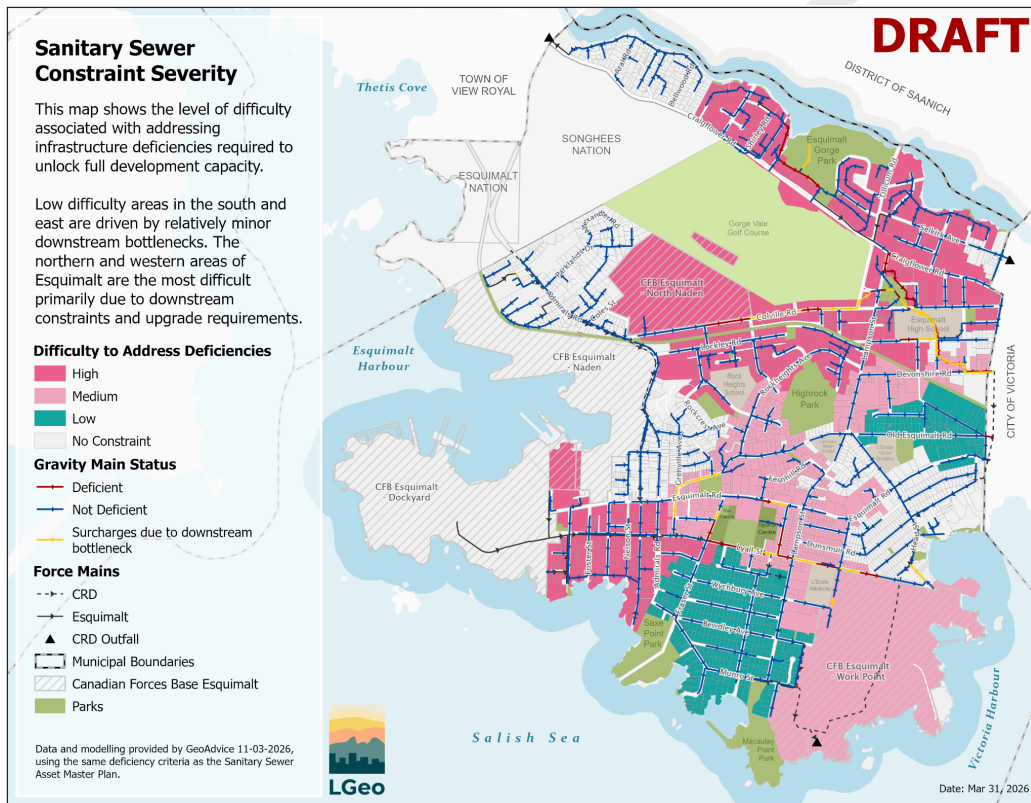


Figure 9. Map of sanitary sewer infrastructure in Esquimalt. Areas where existing infrastructure may limit future growth are classified by difficulty to amend deficiencies to enable development.

Table 4. Summary of number of units impacted by sewer deficiency severity (difficulty to amend deficiencies).

Sewer Deficiency	Units 2024	Absolute Units	Net New Total	Absolute Units Achievable (top 10%)	Net New Achievable (top 10%)
High	3,273	9,708	6,435	1,843	1,709
Low	972	3,269	2,297	721	679
Medium	2,486	8,270	5,784	1,706	1,642
No Deficiency	3,724	9,873	6,149	1,761	1,486

Water

The water distribution system in Esquimalt is operated by the City of Victoria and water is provided by the Capital Regional District. To understand potential constraints in water supply and how those constraints could impact development capacity, the project team engaged with City of Victoria Engineering & Public Works staff throughout the project. The City of Victoria is in the process of updating their master plan for the water system, including for Esquimalt, with an anticipated completion date of late 2026. As part of that effort, the current hydraulic model (2020) is being updated and calibrated through the spring to reflect recent development in both municipalities and recent upgrades to the water distribution system. The modeling will not be available to include in this first draft of reporting; however, in order to ensure the best available information for this study, the City of Victoria Engineering & Public Works staff have agreed to provide a quantitative analysis using their updated modelling in May 2026. This analysis will be included in the second draft of the report in June.

For the current draft, City of Victoria Engineering & Public Works staff provided a qualitative review of water capacity in Esquimalt and its potential impacts to development capacity. Overall, there are few concerns regarding water capacity across the township and looking at the maximum possible development capacity, a typical pace of development is unlikely to cause substantial issues. Moreover, under the new Works and Service Bylaw, all developments with four or more dwelling units are required to meet sufficient Required Fire Flow based on the Fire Underwriters Survey (2020) calculation, either through mitigation efforts or system upgrades at the developer's cost. With this information, it follows that development capacity would not be constrained as a result of water capacity; however, there could be implications to the pace of development given the added compliance costs for developers.

Electrical Distribution and Transmission

The electrical distribution and transmission systems in Esquimalt are operated, built and maintained by BC Hydro, with whom engagement was undertaken to assess electrical capacity constraints. Following from the engagement, BC Hydro summarized the state of the system as follows:

- At the high-level, it appears the area is not capacity constrained, and there is an inflight project to address the spare feeder positions at the substation serving Esquimalt.
- In the short-term, the distribution system has the capacity to serve approximately 5,000-7,500 new homes, and in the 5-10 year range this capacity will increase to serve potentially upwards of 12,000 residential units. However, this does not factor in growth in demand from other uses such as commercial, industrial or mixed-used with residential and commercial etc.

It was noted that the substation that services Esquimalt also services other municipalities in the CRD, such that the capacity is split between them. This means that growth pressures for surrounding communities will

reduce the total amount of capacity available directly for Esquimalt; however, BC Hydro did not indicate concern that this would result in constraints in the near future.

Further analysis is required to analyze potential constraints at the transformer level. BC Hydro is using LGeo's absolute capacity mapping data to do this analysis in-house. It will not be completed for this version of the report, but will be upcoming in a future draft.

DRAFT

Traffic

The Esquimalt road network is relatively small compared to neighbouring municipalities, which is reflected in the Township's compact geography of 7.08 km². The Township operates and maintains approximately 51 kilometres of roads comprising arterials (e.g., major roads), residential collectors, and local roads.

While most transportation trips in Esquimalt are by private motor vehicle, the Township has also seen a rise in active transportation (walking, cycling, transit) over the last 10 years. According to the CRD Origin-Destination Household Travel Survey, in 2017², active transportation trips accounted for 44% of total trips within the Township while in 2022 it increased to 60%³. The increase is likely attributed to the growth of residential and commercial developments within the community (bringing homes and jobs closer together) along with implementation of the Township's active transportation network plan.

Even though active transportation trips have increased over time, there is still a high share of auto driver trips both to and from Esquimalt, likely due to the presence of the CFB Esquimalt, which employs close to 6,000 workers across the region⁴. While only 29% of trips in 2022 were by auto driver within Esquimalt, about 62% of total trips to Esquimalt were by auto driver. Overall, the Township's existing road network and recent transportation trends indicate a growing share of local active transportation trips with a higher share of regional traffic by private motor vehicle.

To better understand Esquimalt's existing road network and whether future traffic might constrain development, a detailed traffic analysis was undertaken. The traffic analysis was completed to understand how traffic volumes today compare to future volumes under the absolute capacity scenario (maximum development). A more detailed discussion of the traffic analysis is found in the *Technical Report*.

The analysis was undertaken by building a township-wide traffic model in the software Visum. The traffic analysis zones were created first, which represent the spatial distribution of trip origins and destinations for both existing and future growth in Esquimalt that influence travel demand. The analysis focused on a selection of the critical roads (i.e., corridors) that see the highest volumes of traffic in the road network today. These corridors were analyzed and compared between the existing and future models to understand how traffic volumes could change with future growth. The corridors included:

- Admirals Road
- Colville Road
- Craigflower Road
- Esquimalt Road
- Lampson Street
- Lyall Street
- Old Esquimalt Road
- Tillicum Road

Once the model was calibrated, a map was produced to show the current traffic volumes, in average daily traffic (ADT), across the Township during the afternoon (PM) peak hour. See figure below.

² <https://www.crd.ca/media/file/crd-2017-od-survey-report-20180622-sm>

³ <https://www.crd.ca/media/file/crd-2022-origin-destination-household-travel-survey-report>

⁴ <https://www.crd.ca/environment/stormwater-watersheds-harbours/harbours/esquimalt-harbour>

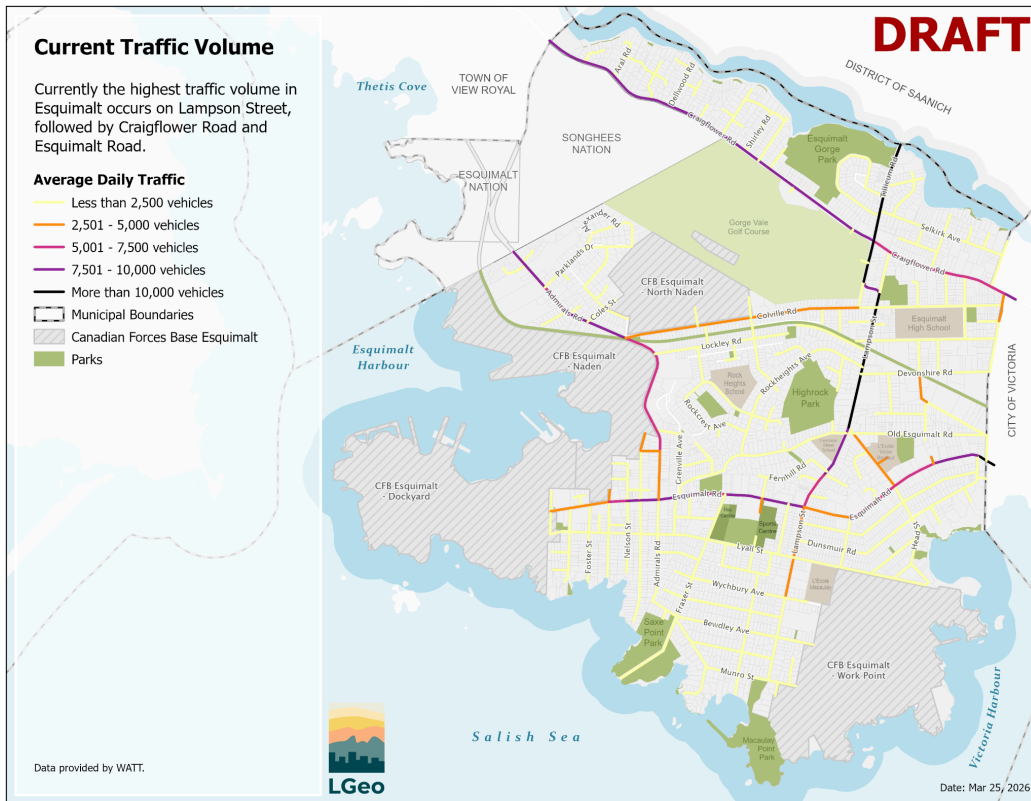


Figure 10. Map of existing average daily traffic volumes in Esquimalt.

The future model was then developed using the absolute capacity scenario. This scenario estimates and assumes the maximum number of units allowed on a parcel under the proposed OCP land use. A map was produced to show the predicted traffic volumes, in ADT, across the Township during the afternoon (PM) peak hour.

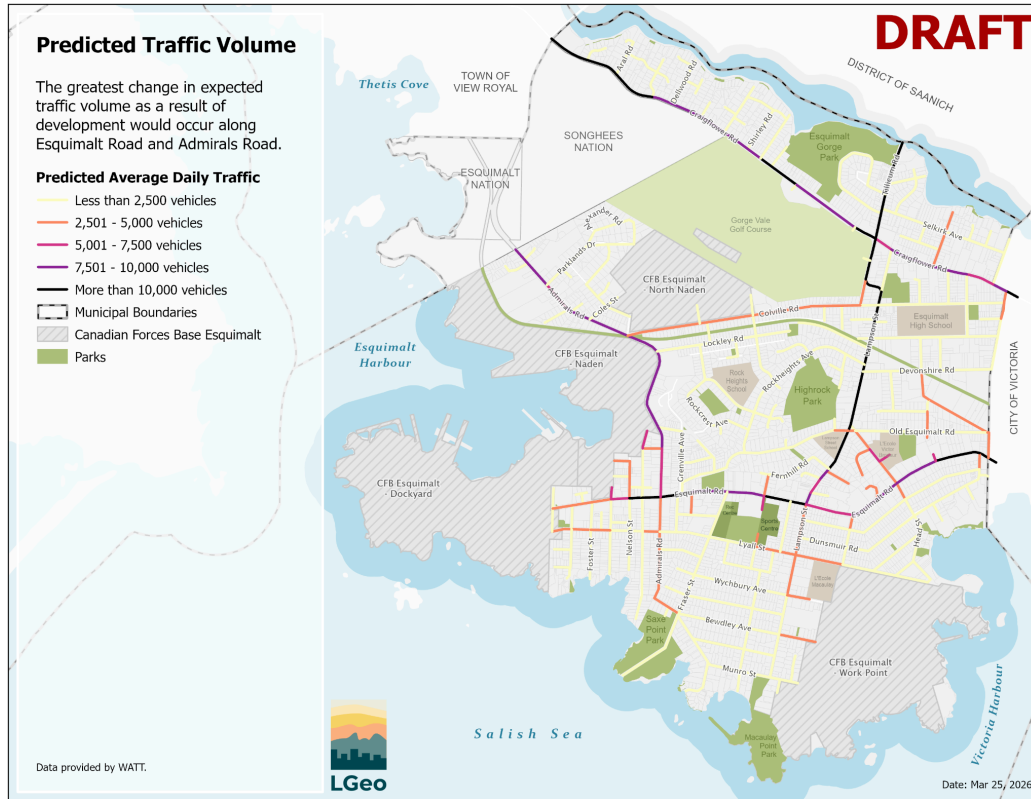


Figure 11. Map of predicted future daily traffic volumes in Esquimalt.

As shown in the maps, all of the corridors in the analysis will see an increase in future traffic volumes including Craigflower Road, Esquimalt Road, and Admirals Road. However, the results show that under future conditions, all corridors will be within the Transportation Association of Canada's typical two-way average daily traffic threshold⁵. This means that none of the corridors will need to be upgraded to a higher road classification to accommodate additional vehicle traffic. Therefore, capacity constraints are not anticipated. In addition, as Esquimalt continues to implement its active transportation network plan and see additional residential and commercial growth along its key corridors, a higher share of non-vehicle trips (e.g., walking, cycling) are anticipated, which will help mitigate future traffic challenges.

Public Transit

Esquimalt is currently served by seven distinct bus routes with different route classifications. This includes several **local** routes (route 24, 25, 40, and 46), two **frequent** routes (routes 14, 26), and one **regional** route (route 15). Per BC Transit's service standards, its route types are defined as follows:

- Local route | 20-120 minute service
- Frequent route | 15 minute or better service, 7am to 7pm, Monday to Friday
- Regional route | 15-60 minute service with limited stops

As shown in the figure below, about 94% of Esquimalt's existing residential dwellings are within 400m of Esquimalt's 145 total bus stops, with ~200m as the average distance from a household to a bus stop. Other than the Rock Heights Avenue area, future development will be within BC Transit's guidelines for walking distance to stops.

⁵ <https://www.tac-atc.ca/en/knowledge-centre/technical-resources-search/publications/pkg-geodes17b-e/>

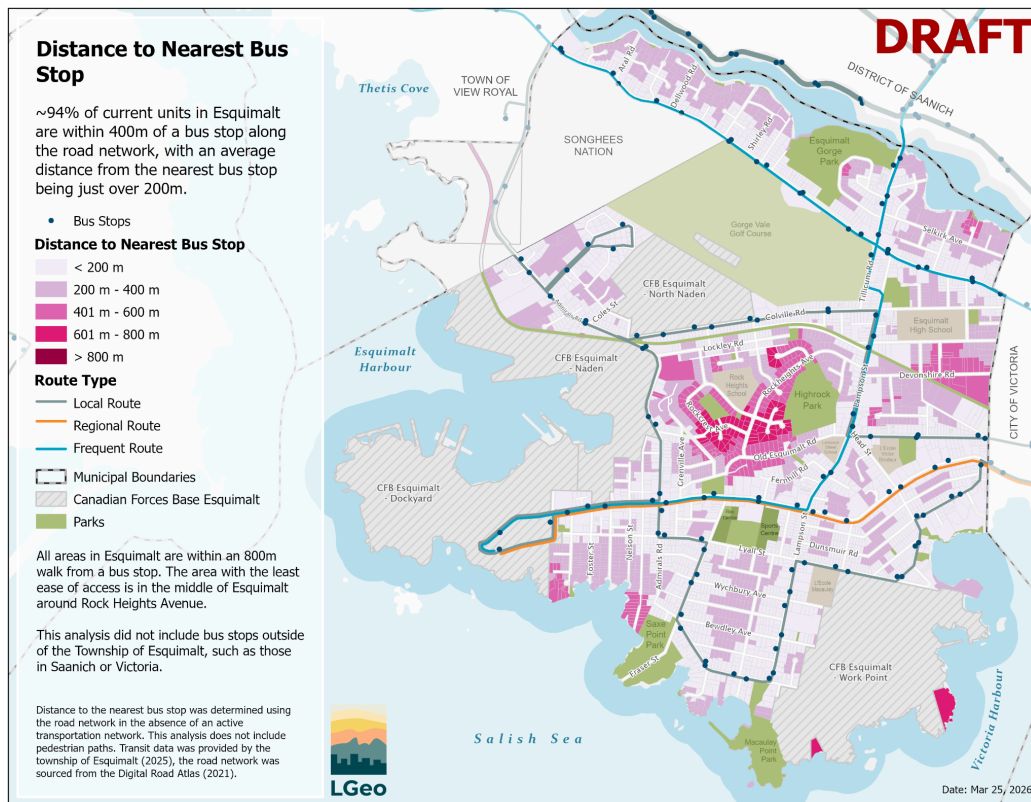


Figure 12. Map of distance to nearest bus stop for all parcels in Esquimalt.

Based on current service levels of the seven existing routes, Esquimalt is adequately served with transit to meet existing demand. Increased development in Esquimalt will support expansion of transit service levels consistent with BC Transit’s planning efforts. Frequent transit services currently serve or are planned to serve Admirals Road (north of Esquimalt Road), Esquimalt Road, and Lampson Street (north of Esquimalt Road). Densification south of Esquimalt Road near Saxe Point and Macauley Point may create the need for additional transit service in the future. Through service increases and potential deployment of higher capacity vehicles, BC Transit is expected to be able to accommodate additional ridership generated by development in Esquimalt.

As bus frequencies and ridership increase with densification, the need for bus speed and reliability infrastructure will become more acute. This is especially true with greater traffic volumes and congestion on major roadways. Increasing service levels to accommodate ridership may be operationally challenging for BC Transit if buses are unreliable and slow due to traffic congestion. Additionally, BC Transit’s planning efforts have identified that future service increases will necessitate an exchange to facilitate bus layovers in the Esquimalt core area, as well as additional layover space at Dockyard⁶.

Overall, increased development and density in Esquimalt will support and be well served by BC Transit’s existing and planned services. Transit service is not an impediment to development within the township. However, additional transit service will require capital investments to increase layover capacity and facilitate efficient bus operations.

⁶ <https://www.bctransit.com/wp-content/uploads/2024/03/14a-Esquimalt-ViewRoyalLATP.pdf>

Recreation

- Currently, ~60% of current housing units are within 1 km of Esquimalt Recreation, Archie Browning Sport Centre of Naden Athletic Centre.
- Average distance to recreation facilities from any parcel is less than 1.1 km

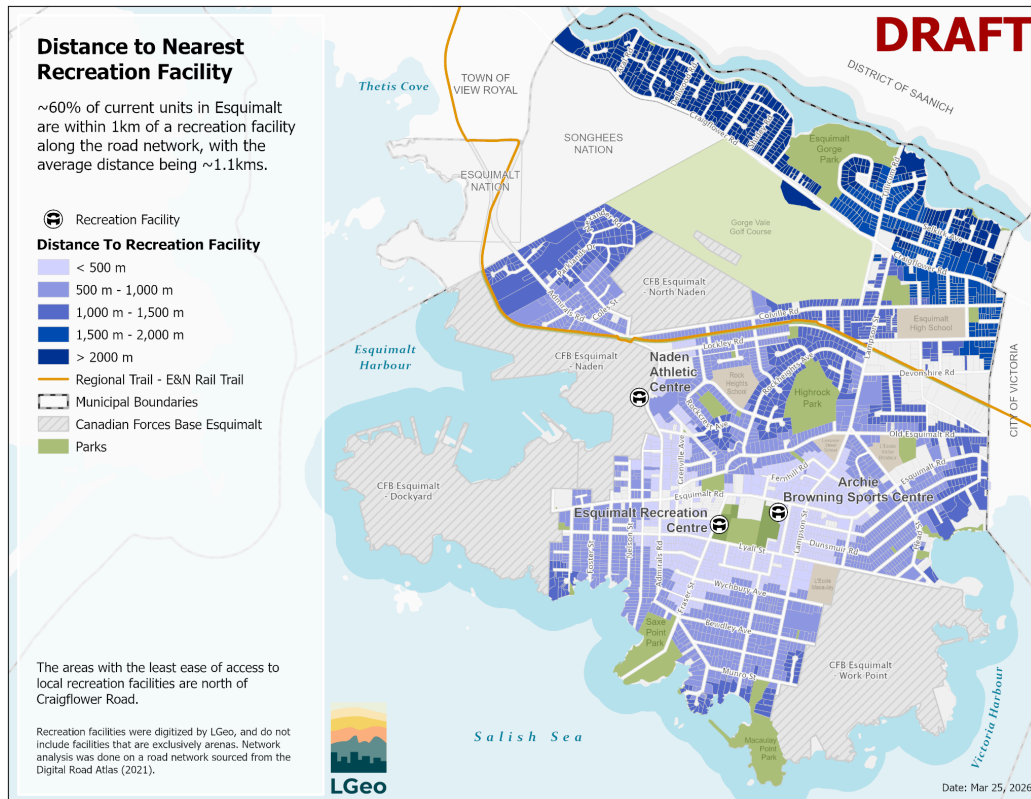


Figure 13. Map of distance to nearest recreation centre located in Esquimalt for all parcels.

- A detailed inventory of Esquimalt’s recreation facilities and current programming is shown in the table below.
 - Conversations with Parks and Recreation Services staff throughout the project have indicated that the Esquimalt recreation services are all well used and loved and perhaps already “at or near capacity”.
 - Cornerstone is actively producing a current state report speaking to the level of parks and recreation service in Esquimalt and relatively in the region, thus more discussion will follow in version 2.

Table 5. Map of Official Community Plan (OCP) proposed land use designations.

Esquimalt Recreation Centre	Built in 1975 renovated 2004
Aquatic Facility (6 lane/25 meter, leisure pool, tots, hot tub, steam room, sauna)	17hrs /364 days a year
Fitness/weight room (4000 sqft of space)	17hrs/ 364days a year
Gymnasium (Small gym)	17hrs/ 364 days a year
Multi Purpose Rooms and Space	17hrs/ 364 days a year
Seniors Centre	17hrs/ 364 days a year
Youth Centre	17hrs/ 364 days a year
Child Care	After school care and out of school care
Archie Browning Sports Centre	Built in 1965
Arena (NHL size rink 200x85ft)	24hrs /364 days a year
Curling (6 sheets)	24hrs /364 days a year
Multi Purpose Rooms and Space	24hrs /364 days a year

- Recreation spaces are not isolated to local use and the facilities in Esquimalt are popular regionally:
 - Most parcels in the North Esquimalt, (north of Craigflower Road) are closer to G.R. Pearkes Recreation Centre in Saanich than those in Esquimalt.
 - This area represents 1,123 units, which is 10.7% of units in Esquimalt
 - The average distance for Esquimalt parcels to local rec centres is 2,382m. When including regional rec centres it decreases to 2,154m when. Specifically due to G. R. Pearkes Recreation Centre in Saanich via Tillicum Road.
 - There are recreation services available to the public at the Naden Athletic centre on CFB. We do not have data on that usage. The CFB does have tentative plans to build a replacement athletic center in the next 10-15 years.
 - At the time of this report, a Crystal Pool replacement project is in its planning and design phase⁷. The City of Victoria will be subleasing the YMCA at 851 Broughton Street for interim recreation services while the new facility is built.
 - As of March 12, 2026 the YMCA has relocated to a new facility in the Bay Centre at 1150 Douglas Street. No pool or gymnasium.
 - Crystal Pool will be closed as of Fall 2026 for construction.
 - This is likely to put additional demand on Esquimalt Recreation Centre’s Aquatic Facility.
- Considered separately to greenspace is the linear recreation available in the region (figure above)
 - Access to surrounding regional facilities using regional trails:
 - Colwood:
 - West Shore Parks & Recreation - accessible directly using the E&N trail
 - Saanich
 - G.R. Pearkes Recreation Centre - accessible using regional trails E&N and Galloping Goose **or** bike lanes on Tillicum Rd/Gorge Bridge
 - Victoria
 - accessible using regional trails E&N and Galloping Goose **and** Victoria bike lanes

⁷ <https://www.victoria.ca/city-government/projects/crystal-pool-replacement-project>

- Crystal Pool and Fitness Centre
- YMCA Downtown
- There is also great accessibility to recreation centres further away using combinations of the regional recreation facilities and connections with other bike infrastructures: YMCA Westhills, Saanich Commonwealth Place, Gordon Head Recreation Centre, Henderson Recreation Centre, Cedar Hill Recreation Centre and Oak Bay Recreation centres.

DRAFT



Figure 14. Map of recreation facilities within the region surrounding Esquimalt.

Greenspace/Parks

- There are 17 parks, 4 greenways, 2 sports fields, and 16 water access points within Esquimalt, for a total of 39 greenspaces. These categories are reported from a parks dataset provided by the Township.
- All greenspaces were considered with the exception of 3 water access points which were farther than 20m from roads, as well as 5 school fields.
- Greenspace is generally well distributed in Esquimalt; 76% of current units are within 400m of greenspace (which includes parks and school fields).
- 400m along the road network is a proxy for a 5 minute walk.
- The areas with the greatest distance to the nearest greenspace are in the north west of Esquimalt near the neighboring communities of Saanich, View Royal, and Songhees Nation, nor on DND lands.
- This analysis did not take into account greenspace in neighbouring communities that residents of Esquimalt may have access to, focusing instead on the local parks within the boundaries of Esquimalt.
- The golf course is not considered greenspace as it is privately owned property.

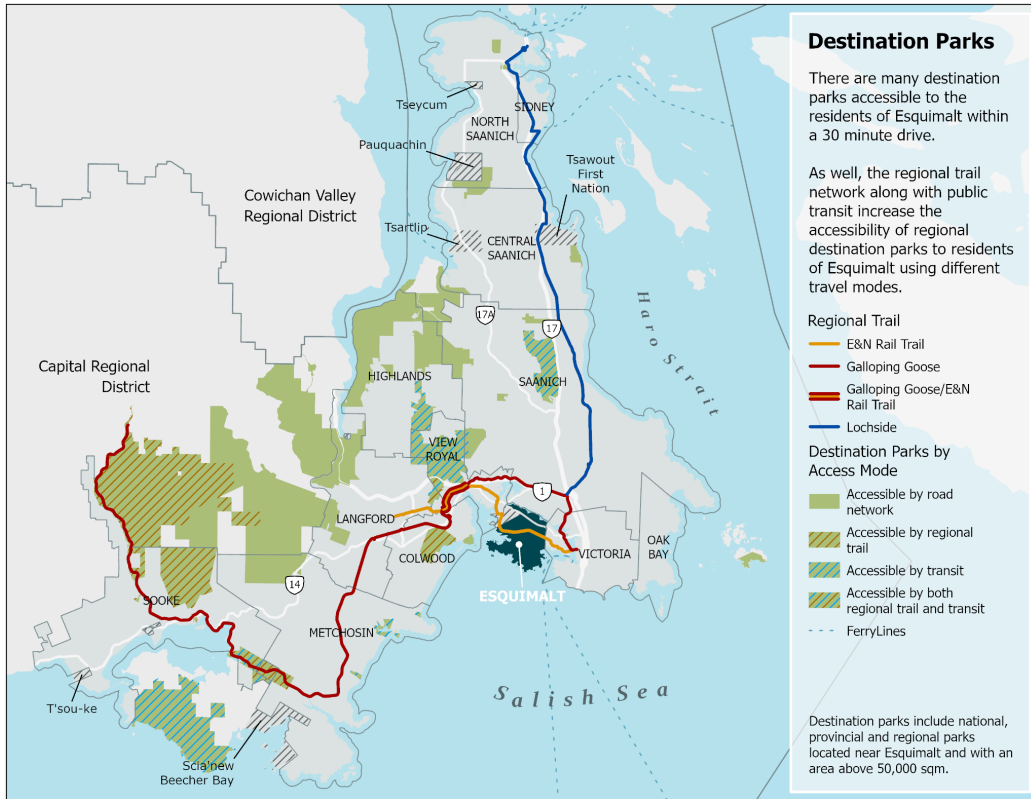


Figure 16. Map of large destination parks within the region surrounding Esquimalt.

- In considering green space and development capacity, the figure below shows in coral the areas where there is a higher capacity for development, in terms of additional density (dwelling units), and lower proximity to greenspace.

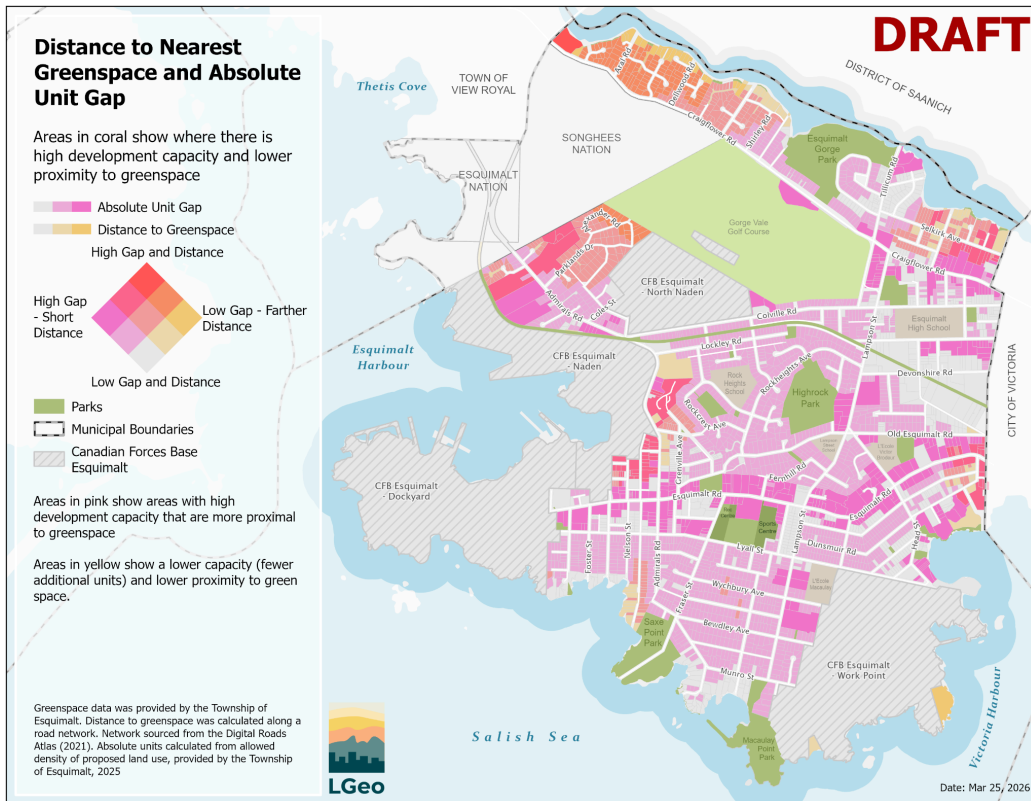


Figure 17. Map showing the distance to nearest greenspace and absolute unit gap in Esquimalt

Tree Canopy

- Esquimalt’s Climate Adaptation Strategy includes objectives and strategies to protect and expand the urban forest to support biodiversity and ecosystem function.⁸
- Esquimalt’s Urban Forest Management Plan sets a 40% municipal canopy cover target, with land use targets such as 50% in suburban residential areas and 25% in urban residential areas.⁹ Current canopy cover is about 38% overall.

Table 6. Canopy Cover by Proposed Land Use Category in Esquimalt

Proposed Land Use Name	Total Area (m ²)	Canopy Area (m ²)	Percent Canopy Cover (%)
Low Density Residential	1,698,406	629,754	37
Townhouse Residential	444,317	168,811	38
Medium Density Residential	348,658	96,787	28
High Density Residential	61,589	12,905	21
Neighbourhood Commercial Mixed-Use	107,002	21,552	20

⁸ <https://www.esquimalt.ca/our-community/environment/climate-action/climate-adaptation-strategy>

⁹ https://www.esquimalt.ca/sites/default/files/docs/related/Esquimalt_final_Urban-Forest-Management-Plan-2016.pdf

Commercial/Commercial Mixed-Use	94,154	7,139	8
Commercial/Commercial Mixed-Use-Tall	4,174	461	11
Federal Land	1,920,624	382,021	20
Other Land Uses	1,352,805	400,126	30

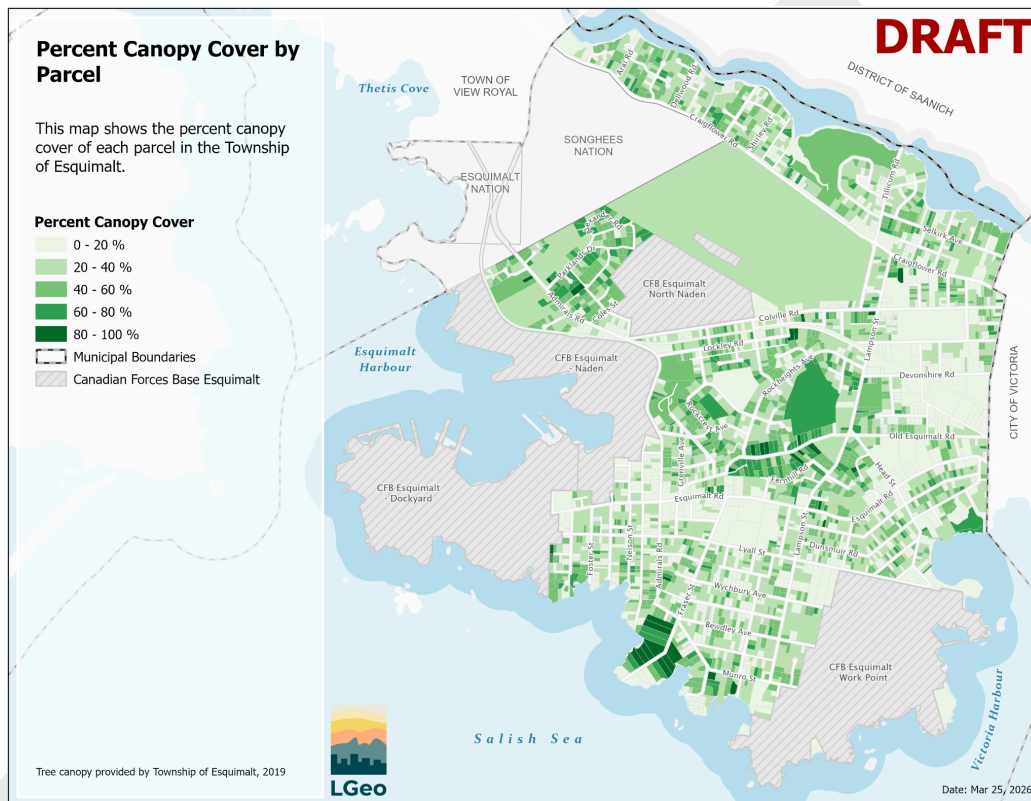


Figure 18. Map showing the percent canopy cover by parcel in Esquimalt.

- The Tree Protection Bylaw restricts removal of trees ≥ 30 cm diameter basal height (DBH) without a permit and also protects wildlife trees, nesting trees, significant trees, and several native species at smaller sizes.
 - Douglas Fir, Grand Fir, and Western Red Cedar if greater than 1.2 m in height; Arbutus, Big Leaf Maple, Garry oak, Pacific Dogwood and Pacific Yew if DBH is 4 cm or greater.¹⁰
 - If protected trees are damaged or removed as a result of development, one or more replacement trees are required to be planted.
 - A high level tree canopy impact analysis will be performed for the second draft of this report to describe the potential canopy loss due to development.

¹⁰https://www.esquimalt.ca/sites/default/files/2023-12-migration/3076_-_Tree_Protection_Bylaw_2023_No._3076.pdf

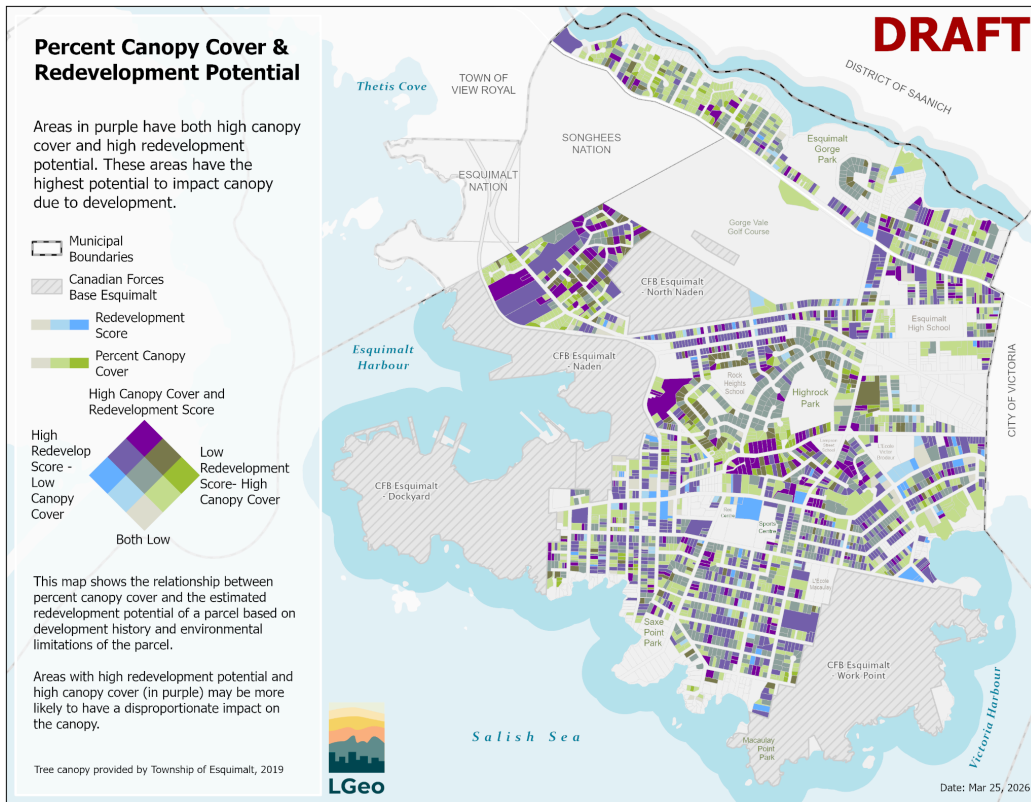


Figure 20. Map showing the percent canopy cover and redevelopment potential by parcel in Esquimalt.

Emergency Services

Fire

The Township of Esquimalt is currently served by Esquimalt Fire Rescue Services, which includes a Fire Chief, two Assistant Fire Chiefs, 29 full-time firefighters, and one administrative staff member (2025). The number of full-time firefighters has since increased to 32 (2026). The department currently operates out of a fire hall at 101-1151 Esquimalt Rd, however a new location is under construction as a part of the Public Safety Building Construction Project, at 500 Park Place, off Esquimalt Road. Through Mutual Aid agreements the Township is also served by the Canadian Forces Base (CFB) Fire Hall and Emergency Response Centre on Esquimalt Road. There are also Mutual Aid partnerships with Victoria, Saanich, Oak Bay, View Royal, Colwood, and Langford.

According to the Esquimalt Fire Rescue Services Response Analysis from May 1, 2025, incident locations vary across Esquimalt by type, requiring the department to maintain flexible deployment capability.¹¹ The Fire Underwriters Survey (FUS) establishes road-network distance thresholds of 8km for the Dwelling Protection Grade (single family dwellings), and 5km (2.5km preferred) for Public Fire Protection Classification (commercial, industrial, and multi-unit residential). According to the Response Analysis the

¹¹ Esquimalt Fire Rescue Services Response Analysis, 1 May 2025

current fire hall location within Esquimalt provides full compliance with both standards, with all areas of the township falling within the 5km boundary. Most parcels (89%) being within the 2.5km target for commercial, industrial, and multi-unit residential. As such, all single family dwellings are located well within the 8km target for that land use. The only area within Esquimalt that is located outside of the more ambitious target area of 2.5km is located at the north of Esquimalt, in the area bordering the Gorge Waters and District of Saanich.

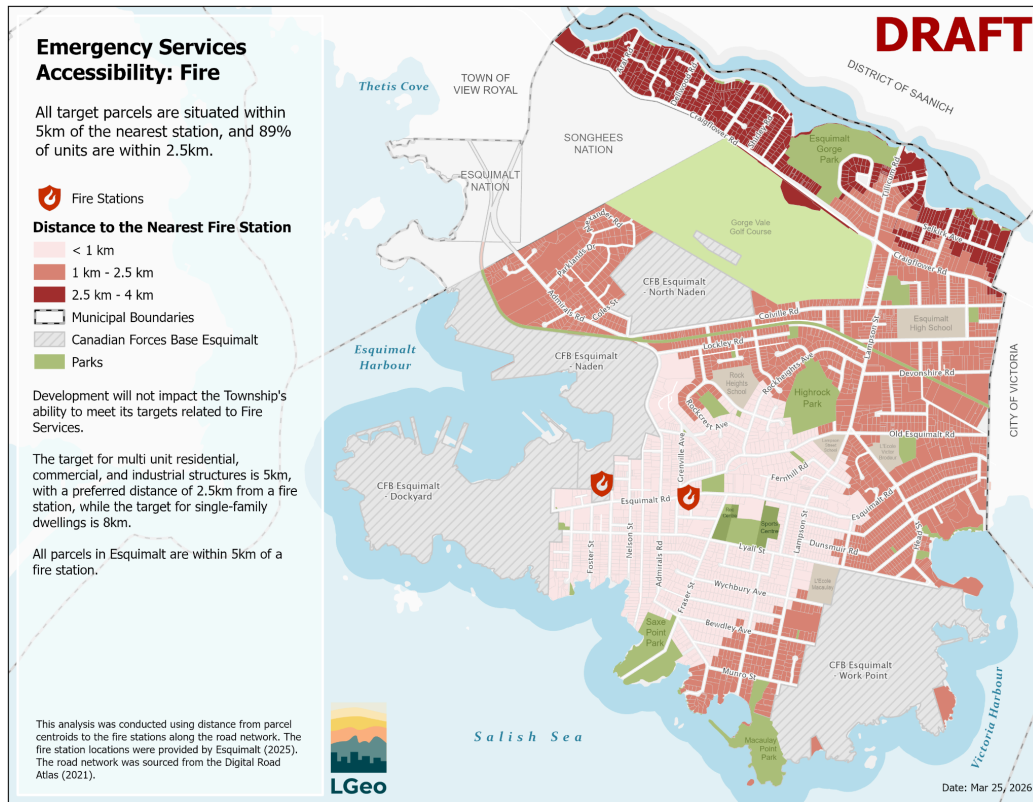


Figure 21. Map of distance from Esquimalt fire halls to parcels within Esquimalt.

This analysis did not take into account the mutual aid agreements with the Saanich fire department, and the Victoria fire department. In general the small size of Esquimalt is such that there are no areas that are outside of the quick response areas, thus access to fire services should not be considered a constraint to development.

Ambulance

The Township of Esquimalt is currently served by BC Ambulance Services, operating under BC Emergency Health Services within the Island Health Region. It serves the Township of Esquimalt and surrounding Victoria areas through emergency medical services, pre-hospital treatment and patient transport. The ambulance service station is located on Ellery Street, though ambulances may occasionally stage throughout the Township, rather than all leave from the station.

The BC Emergency Health Services set targets for response times to high-acuity calls, that is, severe or emergent calls, based on community type. They set the targets to a response time of 9 minutes for urban

communities, 15 minutes for rural communities and 30 minutes for remote areas, achieved 70% of the time¹². For this analysis we used the 9-minute threshold as the target for access.

The drive shed model shows that all areas in Esquimalt fall within the target 9-minute drive from the ambulance service station. We found that all areas within Esquimalt were comfortably within the 9-minute drivetime boundary.

It is worth noting, however, that ambulances and other emergency vehicles are legally permitted to exceed speed limits, proceed through stop signs or red traffic lights, and generally override standard rules and traffic controls, provided they do so with due regard for safety.¹³ This analysis calculated drive times based on posted speed limits and standard intersection delays. The drive time analysis therefore represents a conservative estimate of the service area accessible to ambulances within a 9-minute drive. In practice ambulances would likely be capable of reaching areas beyond the modelled boundaries within the same timeframe. Importantly, this analysis only considered the spatial dimension of emergency services access and did not consider the potential impact of increased population and associated call volumes on ambulance resources. On this basis, access to ambulance emergency services should not be considered a constraint to development in Esquimalt.

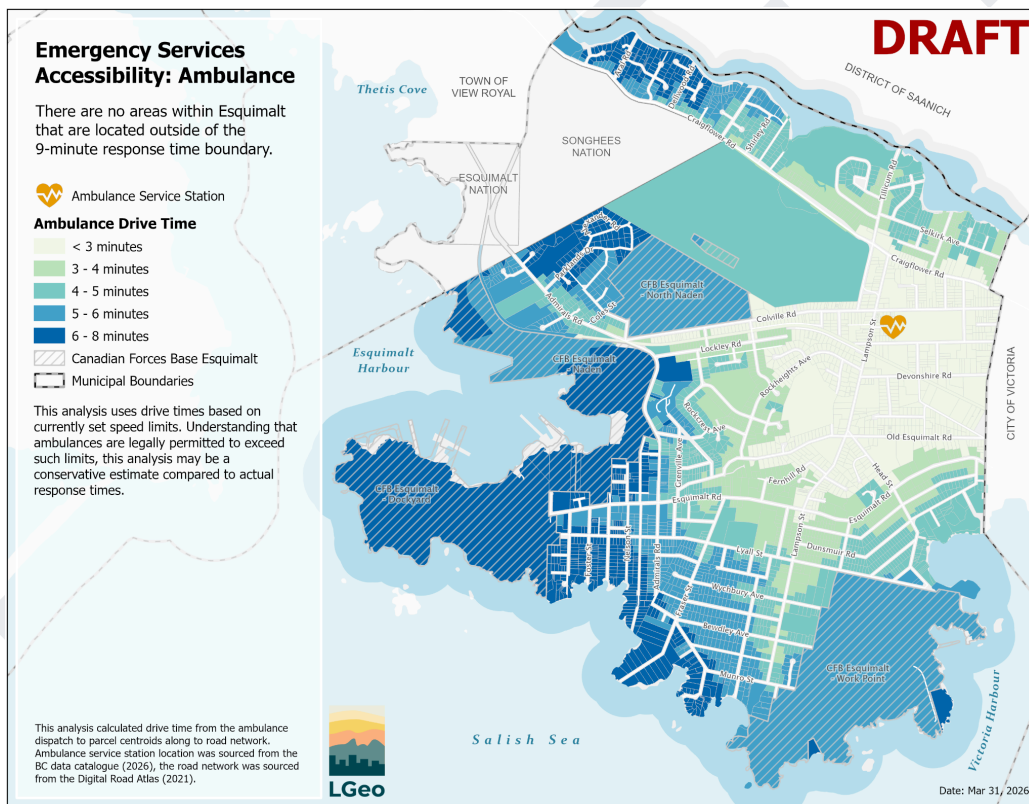


Figure 22. Map of drive times from the Esquimalt Ambulance Service Station to parcels within Esquimalt

Police

Police services are provided by the City of Victoria Police Department through an agreement. The Township is currently undertaking a review of the future of policing.

¹² https://www.oag.bc.ca/app/uploads/sites/963/2024/07/OAGBC-2019-02-03-OAGBC_EHS_RPT.pdf

¹³ https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96318_05#section122

Fiscal Considerations

Mulholland Parker Land Economists (MPLE) has created a fiscal model of the Township of Esquimalt, which uses historical data and assumptions provided by the Township and LGeo to project the Township's future revenues and costs on an annual basis. Whereas most analytical layers in this Development Capacity Study look to identify and describe long-term limits to growth, municipal fiscal capacity presents no such barriers: there is no threshold of growth beyond which the Township will exhaust its fiscal capacity.

The Fiscal Model consists of several interconnected component projections, listed below, and projects until 2075, about fifty years into the future. This horizon is arbitrary.

- Residential supply and population
- Residential property value
- Non-residential property value
- Municipal costs and revenues
- Output variables: tax rates and capital reserve.

The findings of the Fiscal Model are described in the following section. Additional discussion may be provided in Version 2. Detailed discussion of the historical data, inputs and modelling assumptions is found in MPLE's report, provided separately.

Capital Reserve Funds

Each year, monies are added to the Township's capital reserves. This amount is projected to increase from \$3 million - \$5 million per year in 2019 – 2025 up to about \$12 million per year in 2030 – 2032, and to continue increasing by 3% annually with inflation.

At the same time, funds are removed from the capital reserves as needed for capital costs.

MPLE has projected the balance of Esquimalt's capital reserve fund over time based on all assumptions presented in Section 2 of the Fiscal Capacity Analysis. This is shown in Figure B.

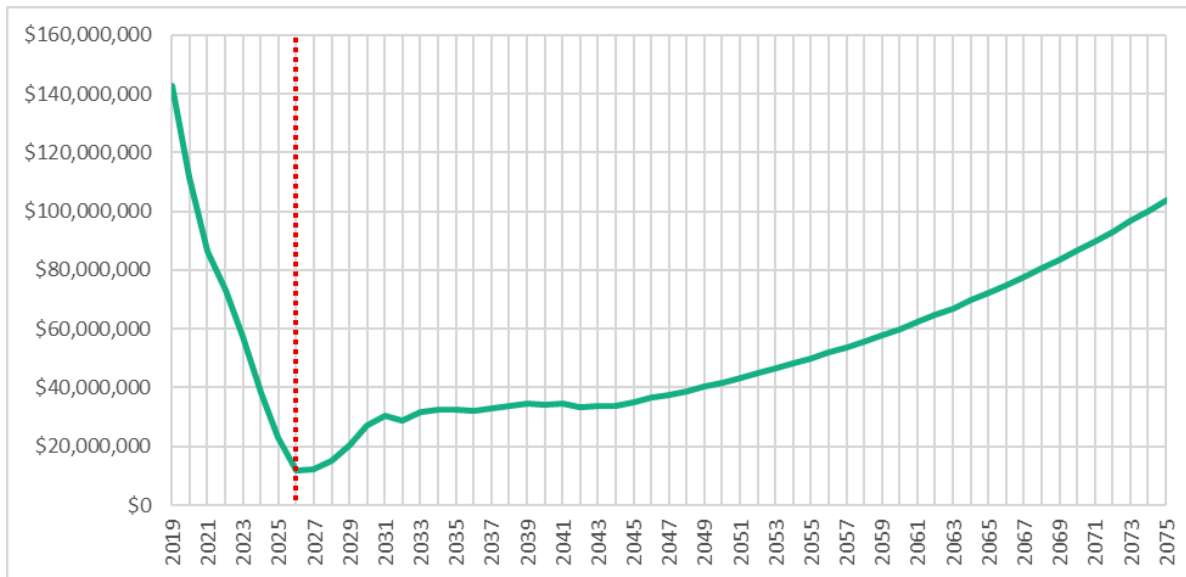


Figure 24. Projected balance of Esquimalt's capital reserve fund.

The figure above shows that according to available data, Esquimalt's capital reserve fund was rapidly depleted during the 2019 – 2025 period as capital costs exceeded reserve funding. However, MPLE projects that its current balance of about \$12 million will be its all-time low point, and that it will recover to more than \$100 million by 2075. This depends principally on the Township's stated intention of increasing capital reserve funding to more than \$10 million per year in perpetuity. If this ongoing amount were \$9 million instead of \$10 million, the reserve fund would run out in approximately 2070.

Conclusions/Implications

This section will be completed pending completion of the water capacity analysis in Version 2 (see Version Notes) and will discuss the following:

- How the findings of this Study may be used for decision making
- Limitations and/or suggested next steps
- Closing remarks