

## PROJECT SUMMARY:

Esquimalt's unique geography and historic boundaries constrain further expansion of the built environment outwardly. Therefore, the only way to accommodate future growth is to densify within the existing urban fabric. This will result in buildings with increased site coverage or height or both. Esquimalt was designed to accommodate primarily low-density development. As densification proceeds, certain constraints may be encountered. It is important that Council, staff, the public, and developers/investors understand how those constraints may impact future development. Some constraints are beyond the control of the municipality (e.g. land fill capacity, and air quality). These constraints will not be considered in this project. Rather, this project will focus on those constraints that are within the municipality's control (e.g. sanitary sewer capacity, carrying capacity of the park system, carrying capacity of recreational facilities, traffic management (all modes), and capacity of emergency services). In addition, this project will examine a select number of constraints that, although beyond the municipality's control, may significantly impact future development (e.g. public transportation, potable water system, sewage treatment capacity, and the capacity and distribution of the electrical system).

## PROJECT MANAGER:

Bill Brown, Director of Development Services.

## PROJECT TEAM:

Bill Brown, Director of Development Services  
Joel Clary, Director of Engineering and Public Works  
Steve Knoke, Director of Parks and Recreation.

## PROJECT OBJECTIVES:

- Develop a methodology to gather, catalogue, analyze, and display data for each variable identified in the SCOPE section to allow for future replication and trend analysis.

- Gather current data related to each variable being studied.
- Analyze each variable and determine its development capacity limit under current conditions.
- Where appropriate, map the spatial extent of the capacity limitations for each variable using digital software compatible with the Township’s GIS.
- Create a spatial heat map that superimposes all constraints with spatial boundaries that will display constraint magnitude. The map is to be compatible with the Township’s GIS and capable of being displayed on the Township’s website.
- Identify the threshold for each variable after which time major resource allocation will be required to increase the threshold (e.g. at what population will a new or expanded recreation centre be required).
- Write a report that includes a section for each constraint variable and the data sources, analysis methodology, capacity constraint, spatial extent of the variable. Also, for each variable provide an analysis of resources required to increase the threshold of the variable.

## PROJECT SCOPE:

The project will examine how each of the variables in Table 1 may impact the development capacity in the Township.

*Table 1 - Variables to be examined*

Variable	Notes
Fiscal capacity of the Township to provide adequate services including tools available to finance growth	The consulting team will provide an analysis of costs attributable to the Township due to future growth. This analysis will also include a recommendation about whether to adopt a Development Cost Charge Bylaw.
Tree Canopy Coverage	The Consulting team will review the Township’s methodology and determine if any modifications are required.
Potable water supply and pressure	The consulting team will analyze the City of Victoria’s water distribution system within the Township and identify any area

Variable	Notes
	that cannot support further development due to inadequate fire flows. In their analysis, the consultants will consider any future upgrades to the system that the City of Victoria is considering. In addition, the consultants will determine if the CRD water supply is likely to be a constraint in the next 20 years.
Sanitary Sewer Capacity	Consultants will consider the results of the Sanitary Sewer Asset Management Plan and how constraints in the system may impact development capacity in certain areas of Esquimalt.
Distribution and capacity of electrical transmission and distribution system	Given that current policy direction at all levels of government to electrify both the built environment and the transportation system, it is imperative that an analysis of both the electrical supply system and the electrical distribution system be completed to ensure that both systems contain enough capacity to accommodate future growth. The consultants will work with BC Hydro to identify specific areas within Esquimalt that may experience development constraints due to inadequate electrical supply or distribution. In addition, the consultants will work with BC Hydro to determine what size/type of building triggers a customer substation and when a customer substation is required, how much additional density is required to offset the cost.
Public Transportation	The consultants will examine how the existing public transportation system may impact future development and be

Variable	Notes
	<p>impacted by future development. The consultants will specifically identify areas where public transportation is not currently adequate to support additional development.</p> <p>In their analysis, the consultants will identify ways to maintain existing levels of transit service while density increases. The consultants will also identify the density level which may trigger the need for a transit hub.</p>
Capacity of arterial roads to handle traffic	<p>The consultants will conduct an overview study of the existing capacity of arterial roads and bridges to accommodate future development. They will also identify acceptable decreases to level of service that may come with growth and the opportunity to offset substandard levels through alternate modes of transportation.</p> <p>Due to the constrained nature of the Township's Road right-of-ways, the study will not consider adding motor vehicle lanes as a future option.</p>
Carrying capacity of the parks system	<p>The consultant will assess Esquimalt's existing parks system to determine their capacity to accommodate additional development and the concomitant increase in population. The consultant will also assess opportunities for park acquisition.</p>
Carrying capacity of the recreation facilities	<p>The consultants will examine the carrying capacity of Esquimalt's recreation facilities (Recreation Centre, Sports Centre, and Gorge Pavilion) to determine</p>

Variable	Notes
	how much more development they can accommodate before expansion is required.
Emergency Services (police, fire, and ambulance)	Examine how new growth could impact the provision of emergency services such as police, fire, and ambulance.

### EXTERNAL STAKEHOLDERS:

- BC Hydro
- BC Transit
- Capital Regional District
- Conseil Scolaire Francophone de la Colombie-Britannique No. 93
- Department of National Defence (CFB Esquimalt)
- Esquimalt First Nation
- Esquimalt Chamber of Commerce
- Greater Victoria Housing Authority
- Greater Victoria School District No. 61
- Songhees First Nation
- City of Victoria (water)
- Urban Development Institute

### MILESTONES:

Description	Timeline
Council authorization to issue terms of reference	September 2024
Draft Request for Proposals	September 2024
Publish Request for Proposals	October 2024
Selection of Consulting Team	November 2024
Finalization of work plan	November 2024
Data collection and analysis	December 2024 – January 2025
Review of initial results	February 2025

Presentation to the Committee of the Whole to discuss results to date	March 2025
Complete data analysis	April 2025
Prepare draft final report and GIS layers	May 2025
Staff review of draft final report	June 2025
Present final report to Council	July 2025
Submit finalized report to Township	August 2025
Project closure	August 2025

## RESOURCES:

- Data from the Township’s Geographic Information System
- Housing Assessment Resource Project Model
- Tree Canopy Coverage data
- Capital Regional District Extreme Heat Information.
- Origin/Destinations Study (CRD)
- Biennial traffic counts
- Official Community Plan
- Zoning Bylaw
- Sanitary Sewer Asset Management Plan
- Financial Plan
- Active Transportation Network Plan
- Housing Needs Report
- Trends in bus use (BC Transit)

## CONSTRAINTS, RISKS, ASSUMPTIONS, ISSUES & DEPENDENCIES:

Certain variables analyzed in this study may be constrained by the quality and quantity of available data. The Township will make its best effort to provide as much data and as high a quality data as possible to the consulting team in a timely manner.

Risks are likely to be low given the nature of the study.

Some assumptions may be required. These need to be identified in all reports.

Some data will be required from third parties. The nature of that data is beyond the Township's control.

For each variable, the potential impact of new technologies (e.g. autonomous vehicles, advances in solar energy generation, and digitalization) and their possible impacts will be considered.

For each variable, demographic trends will be considered.

## DELIVERABLES:

- Draft Report
- GIS map layer for each variable that has spatial constraints
- GIS heat map layer showing the cumulative impact of the spatial extent of constraints.
- PowerPoint (or equivalent) presentations for Committee of the Whole (discuss preliminary results) and Council (final report).
- Technical Report containing:
  - Sources of all data used in the assessment
  - Explanation of methodologies used in the assessment
  - Models used in the assessment
  - Data catalog
  - Data dictionary
- Data base(s)/spreadsheet(s) with all data used in the assessment
- Final Report