

SOUTH ISLAND TRANSPORTATION STRATEGY

Technical Report no.1

# Transportation Snapshot

September 2020



Ministry of  
Transportation  
and Infrastructure

Part of the **South Island Transportation Strategy**, the Technical Report no.1 -

Transportation Snapshot is intended to develop an understanding of inter-regional travel characteristics, highlight key transportation issues and opportunities, and serve as a reference document for subsequent phases of the Strategy and other future initiatives.

# 1. Overview

## What is the South Island Transportation Strategy?

The South Island Transportation Strategy (referred to as the “Strategy”) is a comprehensive assessment of the transportation challenges and possible solutions for the South Island. The Strategy was developed with input from Indigenous, local, regional and provincial plans and initiatives which are shaping the direction of transportation in the region and across the province.

While the strategy considered these plans and initiatives to ensure alignment with the various priorities across the region, it seeks to take them a step further to prioritize transportation system improvements through a bold and innovative approach to integrated planning.

Inter-regional transportation is the focus of the Strategy, with consideration of both Provincial aspirations as well as Indigenous, local and regional policy directions. The Strategy considers all travel modes and opportunities for trips utilizing a variety of transportation options. Travel options given consideration include public transit, active transportation, rail, marine and air travel, and commercial and private vehicles.

Ultimately, the Strategy is about identifying priorities for investment and the partnerships required to advance integrated transportation improvement strategies in the South Island over the next 10 to 15 years.

## The Process

The Strategy is being developed in multiple stages starting with this **Transportation Snapshot** to highlight the transportation systems for all modes and challenges facing the South Vancouver Island area. Subsequent stages of the process are designed to examine possible strategies and improvement options to serve inter-regional travel and support Indigenous, local and provincial priorities.

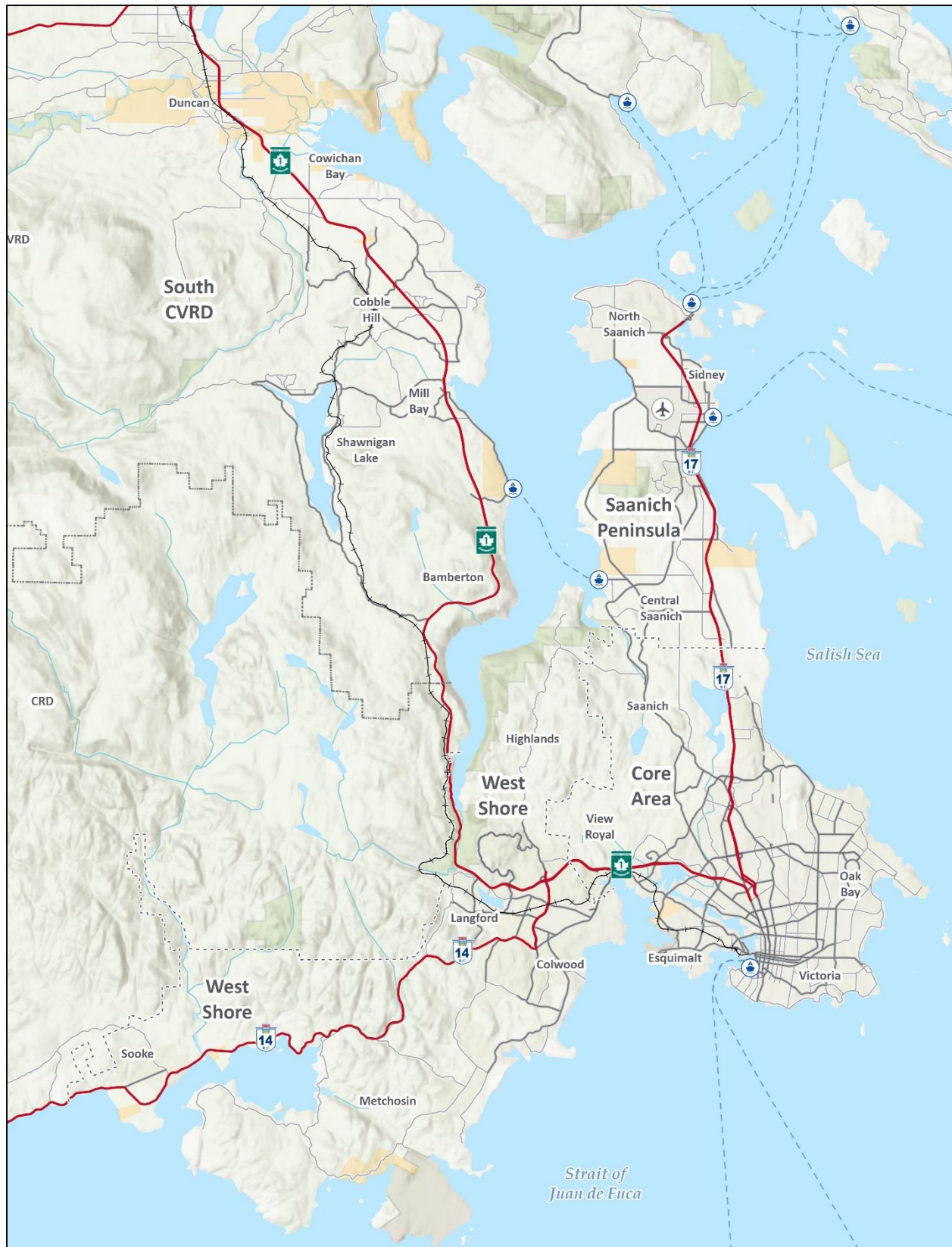
The ministry recognizes that the COVID-19 pandemic has impacted travel patterns across the South Island. This document represents a Snapshot of the conditions before the pandemic. While the long-term effects of the current situation remain unclear, the ministry will continue to monitor travel patterns to ensure that those effects on the network are better understood and will use this to inform future decisions.

## Study Area

The study area is South Vancouver Island as far west as Sooke and as far north as Duncan. This area includes 14 municipalities, 16 Indigenous Territories, and 2 Regional Districts. Refer to **Figure 1**.



**Figure 1. South Island Study Area**



## Previous Initiatives

There's been a long history of planning and implementing transportation system improvements for all modes that support inter-regional travel in the South Island area – from transit and cycling along key corridors to highway improvements to support movement of people, goods and services. In fact, many of the historical initiatives have involved extensive discussions with affected stakeholders around directions and potential partnerships.

Most relevant to this current initiative of inter-regional travel in the South Island are several studies centred on highways to support travel choices for cars, trucks and transit. Some of the transportation projects that have been previously identified and are considered in the Strategy are shown in **Figure 2** and summarized below:

- Strategies for improving safety and reliability of the Malahat that included options for treatments on the current alignment, realignment, as well as alternative routes and connections with bridge, marine and rail alternatives.
- Strategies to address safety and mobility for transit, trucks and cars along Highway 17 that included potential for interchanges at major cross-streets, bus-on-shoulder lanes for rapid transit, park-and-ride facilities and access management along the corridor.
- Widening and realignment options for Highway 14 to serve growing demands for travel by all modes between Sooke and the Westshore communities.
- Planning for mobility improvements and transit priority treatments on Highway 1 to support the BC Transit Future Plan by providing reliable connections between Langford and downtown Victoria.
- Improved connections to inter-regional services (i.e., emergency response) and major entry points.
- Investments and agreements for cycling improvements on key inter-regional corridors.





**Figure 2. Previously Identified Inter-Regional Transportation Considerations**



## 2. Connecting Aspirations

Indigenous, local, regional and provincial agencies throughout the South Island have aspirations that are outlined in plans and strategies that have common foundations. They provide vision and objectives for the South Island and highlight how a transportation system supporting different travel options plays a vital role in achieving those future goals.

Although the plans and strategies are unique and point to slightly different actions depending on the level of organization, they are very well aligned to achieve a common vision. The Strategy must support and reinforce these aspirations. Although many aspects of these strategies are important, the following shared aspirations provide key foundations for a common vision and strategy for the Strategy:

- Take Action on Climate Change
- Connect Communities
- Reduce Vehicle Dependency
- Ensure Sustainable Travel Options
- Support Active Transportation and Healthy Living
- Grow the Economy



### Climate Action

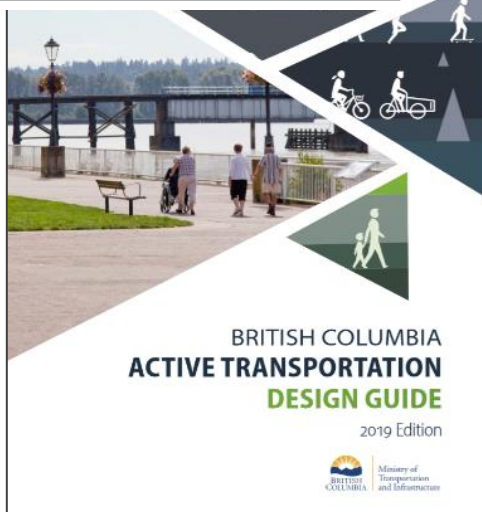
Broad support for and a sense of urgency to address climate action has been expressed at all levels of government and in Indigenous communities. The Province's *Clean BC* initiative lays out a framework for climate action throughout BC, including a targeted 60% reduction in greenhouse gas (GHG) emissions and a commitment to zero-emissions vehicles representing 100% of all vehicle sales by 2040. Regional and local governments have followed with similar GHG emissions reduction targets and policies to increase the proportion of trips made by sustainable travel modes.

### Communities

The Government of British Columbia has focused on making B.C. communities great places to live with more affordable, safe and functional housing and supporting local governments and Indigenous communities. Regionally, both the Capital Regional District (CRD) through the *Regional Growth Strategy* and the Cowichan Valley Regional District (CVRD) through the *Cowichan 2050 Regional Collaboration Framework* have identified growth management, housing affordability and livability as key policy areas. The pursuit of transportation investments that facilitate regional and inter-regional travel will help strengthen communities in these key policy areas by focusing transportation investments within and between identified growth areas and improving less costly and cleaner alternatives to private vehicle ownership.

## Transportation

The Province has established partnerships and made significant investments in active transportation and transit supportive infrastructure and services in the South Island. Consistent with these directions, the CRD *Regional Transportation Plan* and BC Transit's *Transit Future Plan*, for example, identify targets of up to 25% of trips by active travel modes in urban areas by 2038, and 15% by transit by 2030. Planned investments in transit service and transit infrastructure are identified in the *Greater Victoria and Cowichan Valley Transit Future Plans*, with an eye to broadening travel choices.



## Active Transportation + Healthy Living

Considerable emphasis has been placed specifically on active transportation and healthy lifestyles in recent years. This includes, at the Provincial level, the recent release of *Move. Commute. Connect. – B.C.'s Active Transportation Strategy* that clarifies the Province's intent to invest in active transportation. Concurrent with the Strategy was the release of the *B.C. Active Transportation Design Guide* providing guidance and consistency for active transportation infrastructure throughout B.C., including the South Island.

Regionally, initiatives such as the CRD's *Pedestrian & Cycling Master Plan* (PCMP) and numerous local governments establishing active transportation network plans and increasing investment in active transportation infrastructure highlight the importance of active transportation and healthy lifestyles. The CRD's *Regional Trails Management Plan* is another resource that identifies priorities for investment in the regional trail network.

## Economy

Transportation and particularly inter-regional travel are critical to supporting a thriving local economy. Efficient goods movement in and out of the South Island, as well as varied attractive travel options to facilitate tourist travel throughout the region, for example, are some of the ways that the inter-regional networks support the local economy.



### 3. South Island Communities + Gateways

The location, scale and type of growth in the South Vancouver Island area influences travel demand, travel choices, and the location and nature of pressures on the transportation system in the area.

#### Communities

The South Island is home to approximately 412,500 people between the 14 municipalities, 16 Indigenous traditional territories, and 2 Regional Districts. Geographically, this area extends as far west as Sooke and as far north as Duncan.

The population is expected to increase by approximately 23.6% by 2038. The type and location of future growth will determine how transportation demand and travel characteristics evolve in future.

The Capital Regional District (CRD) *Regional Growth Strategy*, in combination with the Cowichan Valley Regional District (CVRD) *Cowichan 2050: Regional Collaboration Framework* describe the preferred approach to growth in the South Island.

Inter-regional transportation improvements are to be planned to not only address current issues, but also take into consideration how future growth patterns will influence travel patterns. The identified Growth Boundary contains the bulk of current settlement and future growth, while the Metropolitan Centre, Sub-Regional Nodes, and Indigenous Communities are the key destinations for regional and inter-regional travel.

#### CRD Regional Growth Strategy (RGS)

The Growth Boundary is the area intended to accommodate 95% of all new housing units and where planned growth and major infrastructure is encouraged. These areas are well established and the concentration of growth ensures resource, agricultural, and park land remains largely undeveloped. The growth boundary includes lands in the Core Area, West Shore, and Saanich Peninsula. See **Figure 3**.

The settlement concept in the *Regional Growth Strategy* identifies two key settlement designations that influence travel demand:

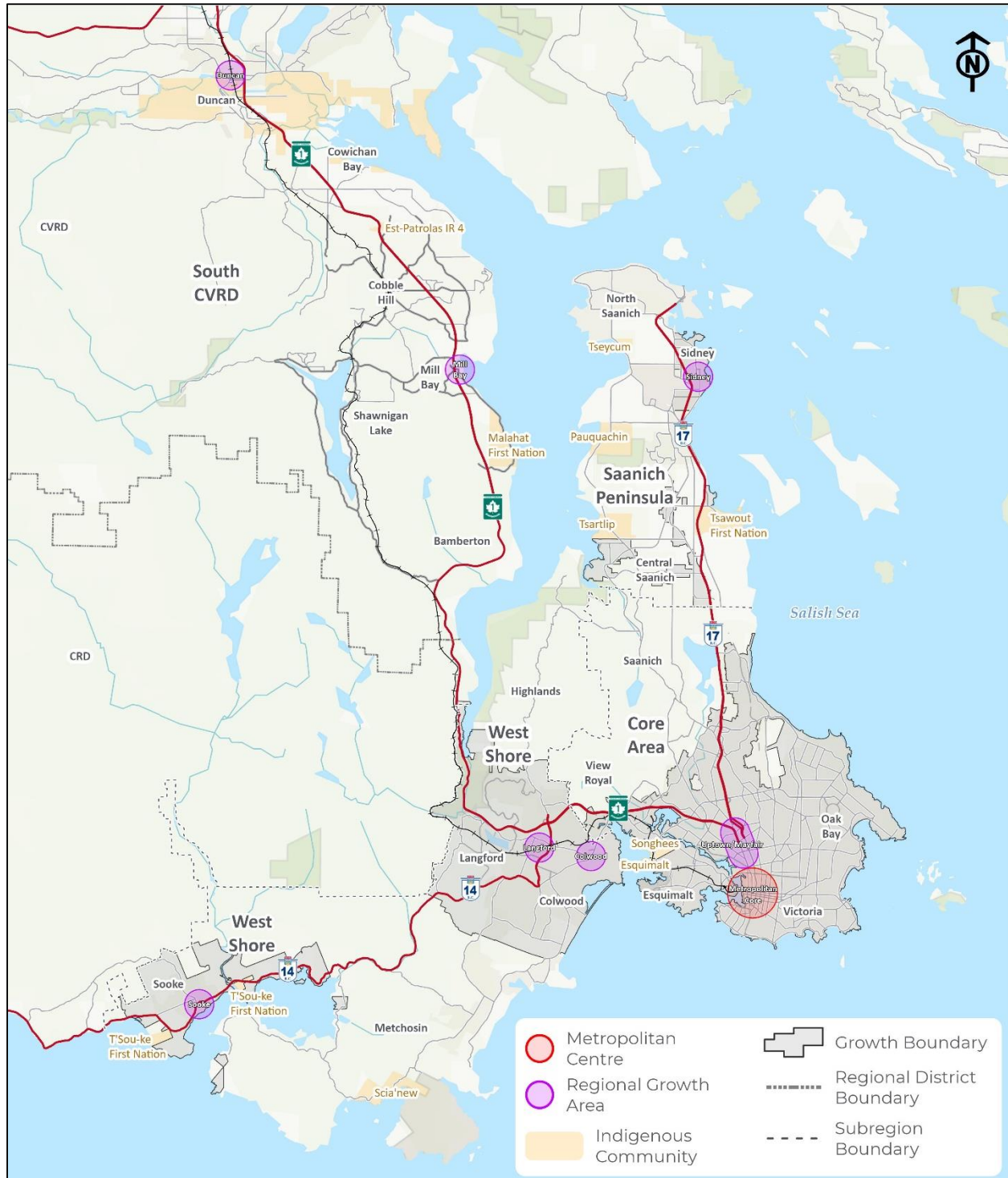
1. A **Metropolitan Centre** is a regional employment, business and cultural destination that is a significant commuter destination from all parts of the region. Downtown Victoria is identified as the Metropolitan Centre.
2. A **Sub-Regional Node** is an employment, commercial and community destination that serves as a commuter destination for the sub-region. Uptown / Mayfair, Sidney, Langford, Colwood, and Sooke are identified as Sub-Regional Nodes.

Further, the South Island contains the traditional territories of 16 distinct Indigenous communities, each with varying levels of growth and development planned.

#### CVRD Collaboration Framework

Growth management in the CVRD is primarily addressed through the Official Community Plans (OCPs) of the various Electoral Areas. Each identifies an Urban Containment Boundary (UCB) that is intended to concentrate future growth into areas that are already developed or are suitable for development. Recognizing the lack of coordinated growth management between local governments, the Collaboration Framework highlights the CVRD's plan to "harmonize" the various OCPs to ensure consistency.

**Figure 3. Study Area Communities + Growth Boundaries**



## Indigenous Communities

Indigenous communities were consulted to ensure key transportation issues are identified and community aspirations are reflected in this document. Indigenous communities in the South Island are identified in **Figure 4**.

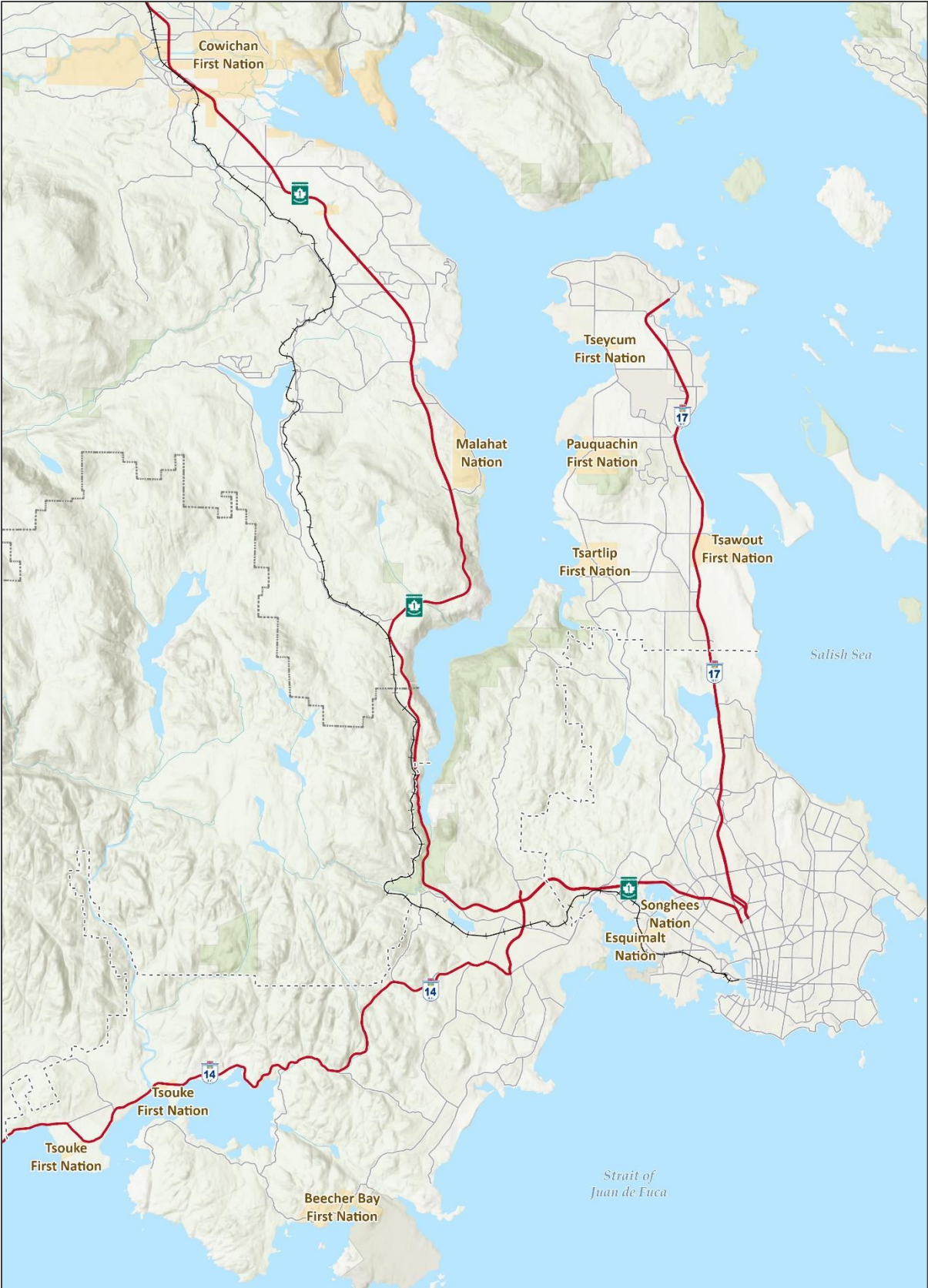
A summary of feedback from Indigenous communities is as follows:

- Economic development and addressing climate change are key goals in most communities. Transportation choices and improved access to transit are seen as opportunities to address these goals.
- Safety is a top priority in communities throughout the South Island, with safe walking facilities and adequate lighting identified as highest priority.
- A significant number of community members do not have access to a vehicle and do not drive. Walking and cycling are common travel modes, as is public transit for longer distance trips.
- A lack of available travel options in certain areas is a barrier to attending school and accessing employment. Many individuals also experience challenges accessing health care and appointments, as well as making trips for daily errands.
- Local transit service is viewed as not meeting community needs. Issues with schedules not providing service when people need it (particularly in the evening) and challenges making connections between routes were noted.
- Unappealing transit service leads to individuals relying on taxis, a more costly alternative.
- The Cowichan Valley Commuter (CVC) service is valued but the following barriers are faced by riders:
  - Cost (\$10 each way, \$200 per month)
  - The limited schedule focused on commuting forces people to schedule their whole day around using the service, including having to leave home very early in the morning
  - Lack of connections from local routes to the Commuter route
- CVC ridership would be higher among Indigenous community members if costs were reduced, more schedule options available, more park-and-ride facilities, and with better integration with local transit routes.
- A universal transit pass was identified as an opportunity to improve fare payment across the two transit systems (Victoria, Cowichan Valley).





Figure 4. Indigenous Communities in the South Island



## Transportation Gateways

The South Island area support several gateway connections to other parts of Vancouver Island, provincially and nationally/internationally. Each contributes and supports vibrant communities and economies across the entire Island and the subject study area. Transportation systems that serve and support these gateways are vital to achieving provincial and regional vision and aspirations. The transportation systems serving these gateways and the interface between gateways are critical to ensuring the effective movement of people and goods throughout the South Island.

Gateways are generally considered within three categories, as follows:

1. **International Gateways** facilitate travel between the South Island and international destinations.
2. **Provincial Gateways** facilitate travel between the South Island and provincial destinations.
3. **Island Gateways** facilitate travel between the South Island and other destinations on Vancouver Island.

Six specific gateways are identified in the South Island, as shown on **Figure 5**. An overview of each gateway location is provided in **Table 1**.

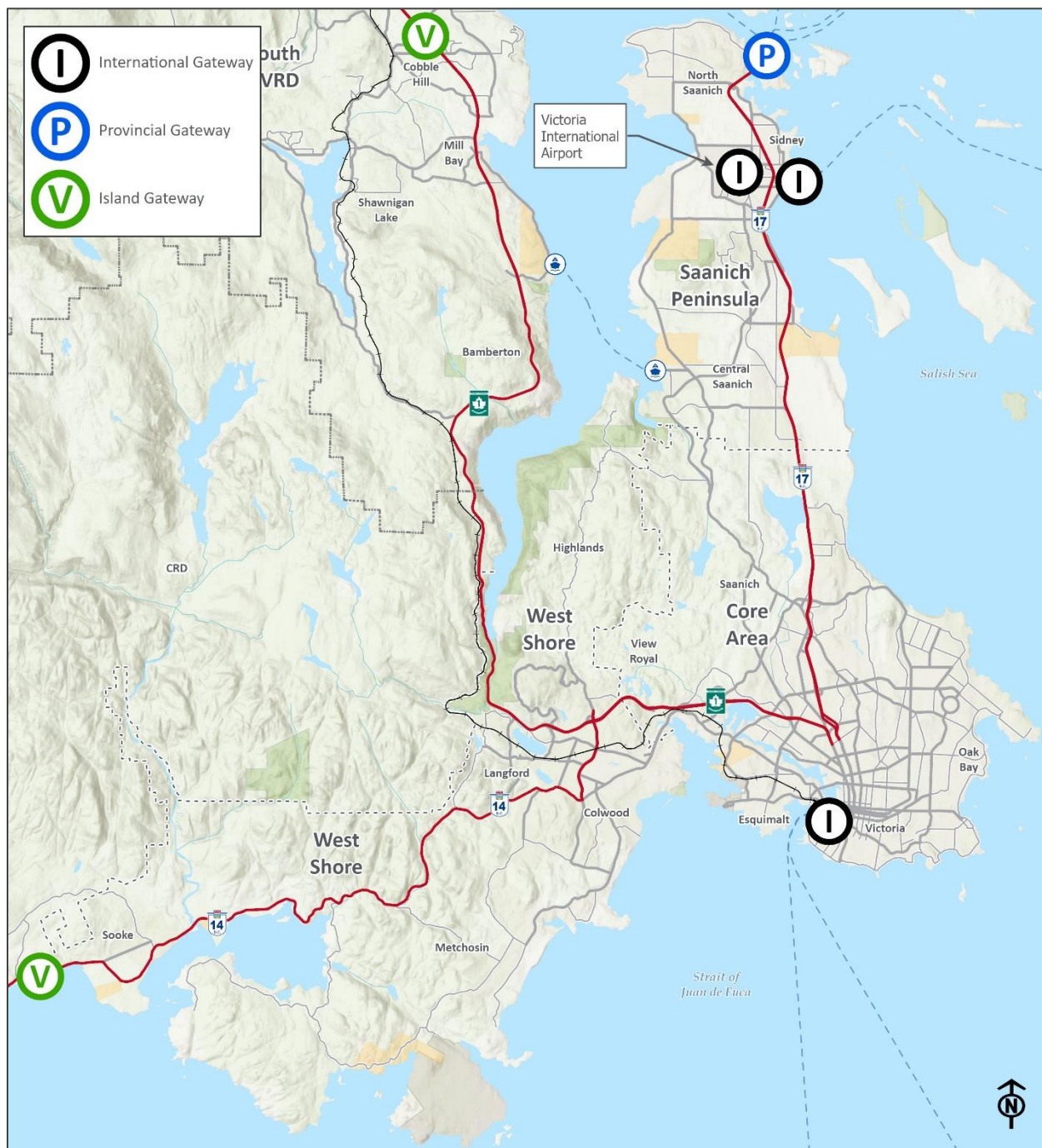


**Table 1. Key South Island Gateways**

| International                  |   |
|--------------------------------|---|
| Victoria Airport (YYJ) Gateway | The Victoria International Airport is the primary airport for the South Island, facilitating over 2-million passenger trips each year and freight transport to a variety of destinations. Passengers travel to/from the airport by vehicle, taxi / shuttle, public transit and by bicycle.  |
| Sidney Gateway                 | Located in Sidney, the Sidney / Anacortes Ferry Terminal is the departure / arrival point for the international ferry service between Sidney and Anacortes, Washington. The ferry accommodates vehicles, buses / shuttles, bicycle, and walk-on passengers.   |
| Victoria Harbour Gateway       | The Victoria Harbour is the gateway for a variety of travel options from beyond the South Island including vehicle and passenger ferries, cruise ships, floatplanes and the heliport.   |
| Provincial                     |   |
| Swartz Bay Gateway             | The Swartz Bay Gateway facilitates travel from the South Island to Metro Vancouver and the Southern Gulf Islands. Ferry services accommodate vehicles, buses / shuttles, bicycles and walk-on passenger typically arriving at the terminal by public transit or vehicle drop-off, as well as playing a key role in the movement of goods. |
| Island                         |   |
| Malahat Gateway                | The Malahat Gateway facilitates travel to the South Island from locations elsewhere on Vancouver Island. This route primarily accommodates vehicles and buses, as well as goods movement.   |
| Sooke Gateway                  | The Sooke Gateway facilitates travel between the South Island and communities to the west of Sooke.   |



**Figure 5. Key South Island Transportation Gateways**





## 4. Inter-Regional & Regional Travel

How much, where, why and how people travel are important considerations to understanding current day challenges as well as how sustainable transportation choices will serve future growth in inter-regional travel demands.

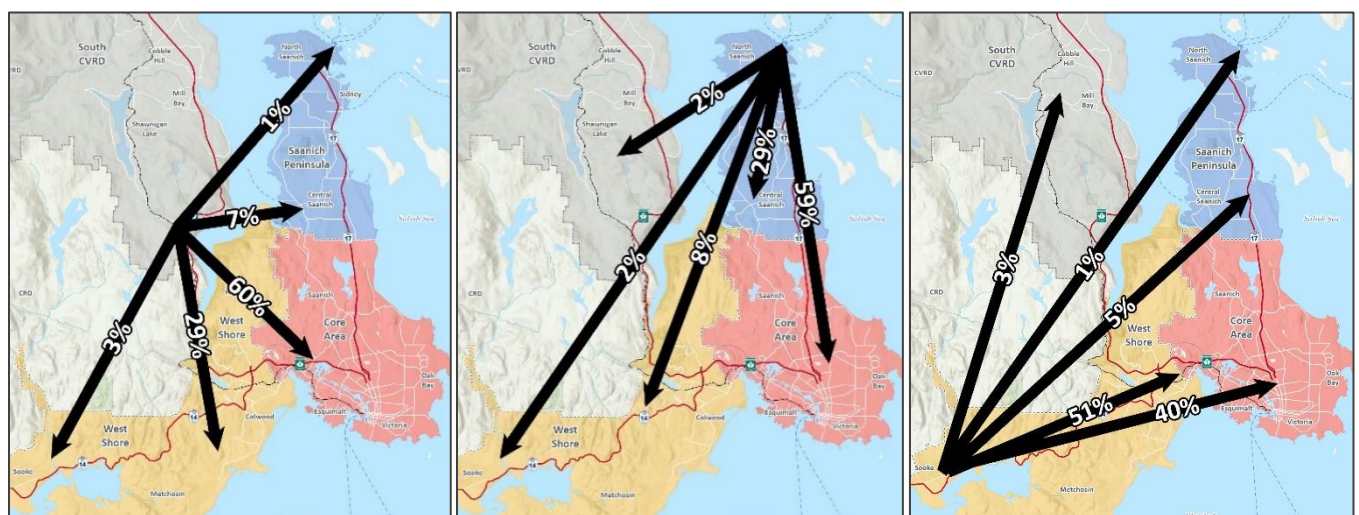
Today, approximately 83,000 people trips enter and leave the South Island area each day. Over 36% of those trips travel across the Malahat, 28% through the Swartz Bay Ferry Terminal and 26% across Highway 14 (see **Figure 6**). The remaining trips arrive through the Victoria International Airport, as well as the Victoria Harbour and Sidney / Anacortes Ferry Terminal.

The distribution of these inter-regional trips will provide guidance into the transportation issues and challenges on corridors across the South Island as well as opportunities to provide transportation choices. **Figure 7** illustrates the distribution of travel from the top three gateways. In all cases, the core communities of Victoria and Saanich are the principle destination for daily travel from each gateway. For trips entering and leaving from the Malahat and Highway 14 gateways, the Western Communities also comprise a significant portion of travel.

**Figure 6. Daily Travel Across Key Gateways**



**Figure 7. Distribution of Daily Travel Across Key Gateways**



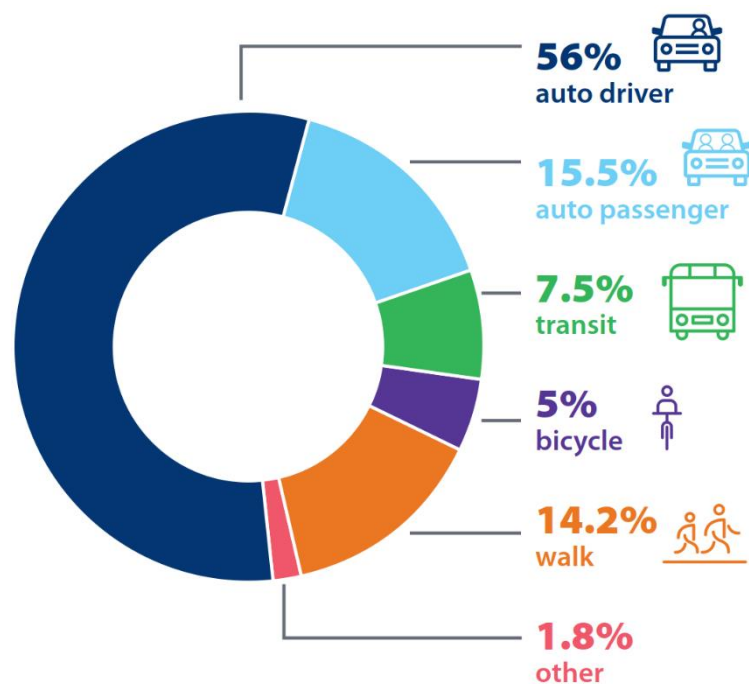
Regionally within the CRD, approximately 1.1-million trips are made each day to, from and within the region. These trips include South Island residents making their daily commute to work or school, regional trips to access services or for recreational purposes, and inter-regional freight and visitor trips by all modes.

As illustrated below in **Figure 8**, over two-thirds of all trips within the CRD are made by vehicle (either driver or passenger). Generally, the Core Area communities (Victoria, Saanich, Oak Bay, Esquimalt) have a higher number of trips by transit as well as walking and cycling as compared to the West Shore and Saanich Peninsula communities.

By 2038 the population of the South Island area is projected to grow from approximately 412,500 to approximately 510,000 people. Regional forecasts prepared by the CRD indicate that the number of daily trips across the region will increase from 1.1M to 1.3M trips.

For inter-regional travel across key gateways, the population and employment growth levels across the South Island provide the best means of forecasting changes in travel demands along with other factors such as changes to the transportation system and macro-economics on the Island. For the purpose of the Strategy, ***growth forecasts would suggest that the inter-regional travel would increase by approximately 15,000 trips per day by 2038 to and from the South Island.*** It is worth noting that historical growth rates at the Victoria International Airport are expected to continue with planned expansion and current forecasts of 3.7% per year.

**Figure 8. Existing Mode Choice**



## 5. South Island Transportation System Highlights

The South Island area is served by a regional and provincial network of roads, regional and inter-regional transit services and facilities for customers, a network of active transportation facilities that connect municipalities and regions, as well as marine and air transportation services that serve travel outside the study area.

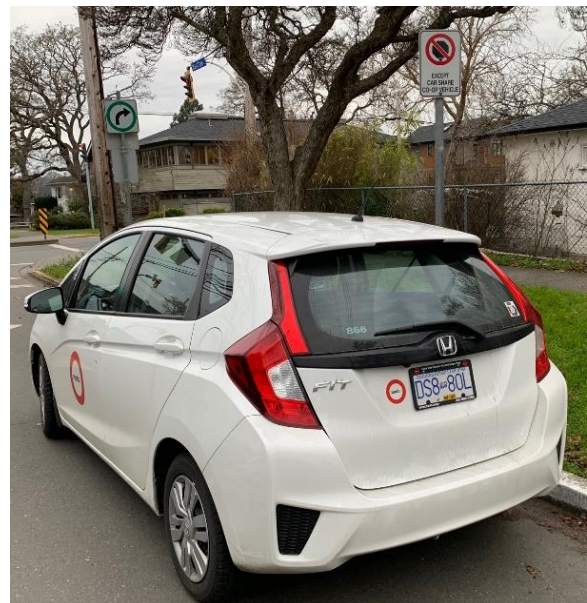
Each of the transportation systems are governed, financed, operated and maintained by various agencies local, regional, provincial and national transportation agencies and organizations. In most cases, agencies have worked together on managing existing facilities as well as planning future upgrades and expansions to better serve travel beyond their own boundaries of responsibility and support inter-regional travel patterns. This includes identifying opportunities to better integrate the various travel modes, which historically has been a key issue with the transportation system in the South Island.



This section of the Transportation Snapshot highlights the existing and planned transportation systems that serve inter-regional travel to and from the South Island area.

The principal features of the current transportation systems are highlighted, historic and current day travel patterns are explored, performance measures are considered where appropriate and current plans of the governing agencies responsible for the systems are identified.

These highlights will form a fact-based approach to identifying key technical issues and challenges that can be considered with Indigenous communities, agencies and other stakeholders to demonstrate the long-term transportation needs for the South Island area.



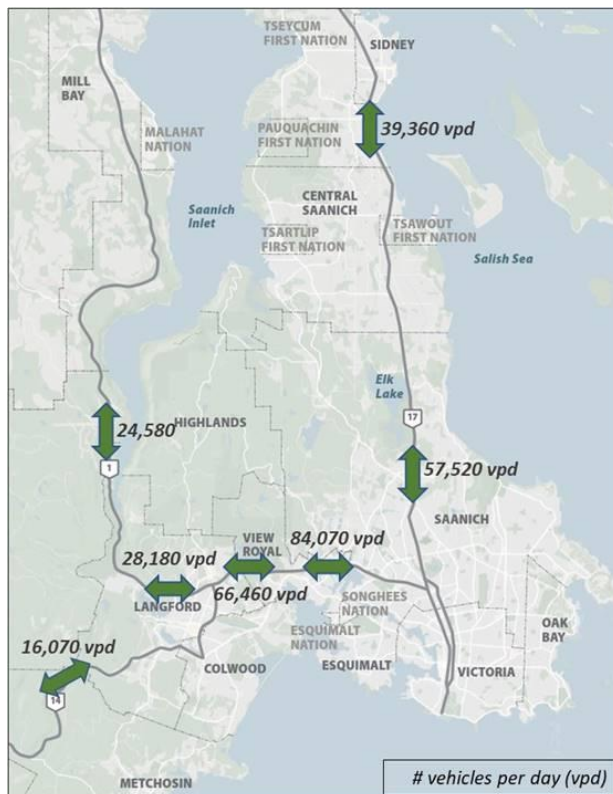


## South Island Transportation System Highlights

# Highways + Regional Serving Road Network

Highways and regional serving roads facilitate the inter-regional travel of vehicles, trucks, public transit and active transportation, connecting key gateways, urban centres and Indigenous communities throughout the South Island. They are supported by other municipal arterials, which provide access to/from key destinations within and between communities within the CVRD and CRD. **Figure 9** below illustrates the inter-regional serving roadway networks across the study area along with daily traffic volumes.

**Figure 9. Inter-Regional Serving Road Network + Traffic Volumes (AADT)**



The provincial highway system through the South Island is centred on four primary corridors.

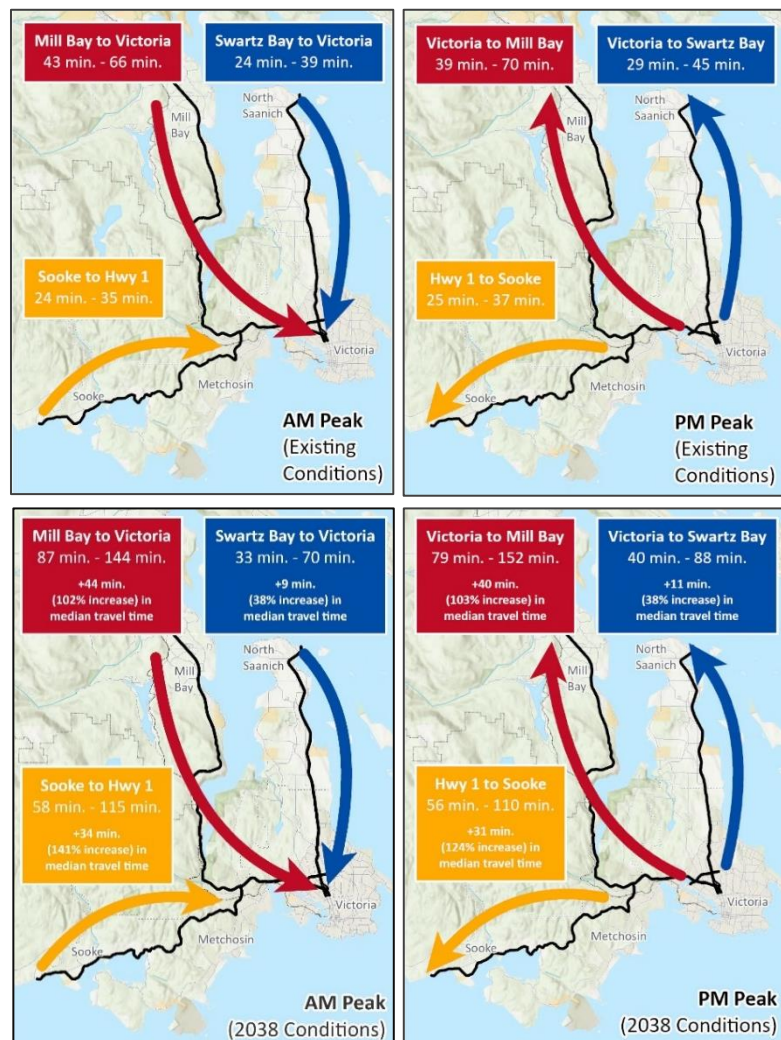
1. **Highway 1** provides east-west connections between the Western Communities and the core areas of the CRD as well as serves travel between the Cowichan Valley and other parts of the Island to the north with the CRD and other provincial, national and international gateways. North of the Malahat, Highway 1 supports approximately 25,000 vehicles per day and increases to up to 85,000 vehicles per day west of McKenzie Avenue. Trucks account for approximately 12% of the daily travel on the corridor.
2. **Highway 17** serves the Saanich Peninsula area and supports provincial and national/international connections for the Island through ferry terminals and the Victoria International Airport. The corridor supports approximately 39,360 and 57,500 vehicles per day in the north and south sections respectively. Trucks account for 6% of the daily corridor traffic.
3. **Highway 14** serves the most westerly parts of the CRD and connects communities such as Sooke and Port Renfrew with the West Shore communities to the Core Area of the CRD. Between Sooke and Langford, Highway 14 supports approximately 16,000 vehicles per day and 8.5% truck traffic.
4. **McKenzie Avenue** connecting Highways 1 and 17 providing connectivity between the Saanich Peninsula and Western Communities. McKenzie Avenue supports approximately 35,000 vehicles per day.

As previously noted, the highway system and other regional serving roads in the South Island support significant transit service, goods movement and vehicle travel. The performance of major corridors in terms of mobility, reliability and safety impacts everything from travel mode choice through to economic and social connectivity. Mobility refers to the typical, everyday travel time and reliability captures the variability or additional time to account for in planning travel.

**Figure 10<sup>1</sup>** below highlights the typical and higher ranges of travel time between key inter-regional travel patterns today and 2038 with planned growth and no changes to the transportation system. For example, a typical trip from Mill Bay to Victoria today would take approximately 43 minutes during the AM peak and as long as 66 minutes on some days. With expected growth, this same trip would take up to 87 minutes on a typical day and up to 144 minutes with variability of conditions.

The COVID-19 situation has impacted travel times and will continue to be monitored to better understand the effects of the pandemic on the network.

**Figure 10. Travel Time between Key Inter-Regional Origins/Destinations**

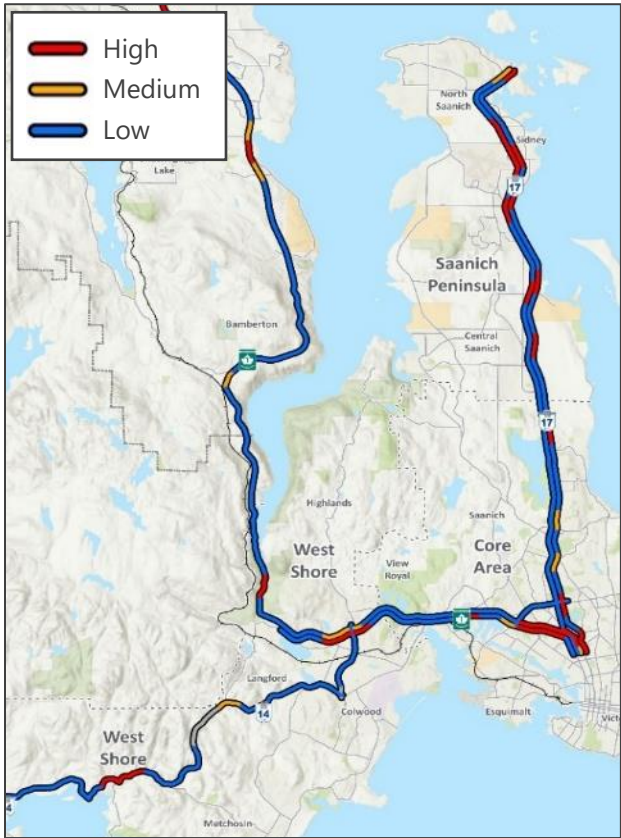


<sup>1</sup> All references in this section are to conditions prior to the McKenzie Interchange opening

Safety or collisions along the provincial highway system and other regional serving roadways affect overall comfort and well-being of travel in the South Island area and can also impact reliability and connectivity for most travel. For those where there are few alternative routes to get around the South Island, higher collision corridors will impact connectivity to key inter-regional gateways as well as between urban areas and Indigenous communities.

**Figure 11** illustrates the historical collision rates for highways in the study area. Higher than average collision rates mean that crashes relative to traffic volumes are higher when compared to similar highways in British Columbia.

**Figure 11. Historical Collision Rates (2010 to 2014)**



The higher collision locations in the core areas of the CRD along Highway 17 and Highway 1 occur at signalized intersections which is typical for most major roadways. Similarly, higher collision areas on the Peninsula along Highway 17 occur at the signalized intersections along the corridor. Highways 1 and 14 entering and leaving the South Island area have fewer locations of higher collision rates. For these corridors, the lack of alternative routes impacts overall connectivity between Island communities and other economic and personal travel.

Beyond the impact of collisions on reliability and connectivity, other unplanned closures impact the highway system in the South Island area. As identified in **Table 2**, the highest frequency of unplanned closures is experienced on Highway 1 (approximately 12 per year), whereas the magnitude of the closures is typically greatest on Highway 17 and Highway 14.

**Table 2. Unplanned Highway Closures (2011 to 2015)**

|  | Closures<br>(per year) | Avg.<br>Duration | Max.<br>Closure |
|--|------------------------|------------------|-----------------|
| <b>Hwy 1</b><br>Malahat                | 12.0                   | 1.8 hrs          | 20.9 hrs        |
| <b>Hwy 14</b><br>Victoria to<br>Sooke  | 5.6                    | 2.1 hrs          | 6.6 hrs         |
| <b>Hwy 17</b><br>Victoria to<br>Sidney | 3.2                    | 2.4 hrs          | 6.6 hrs         |



## South Island Transportation System Highlights

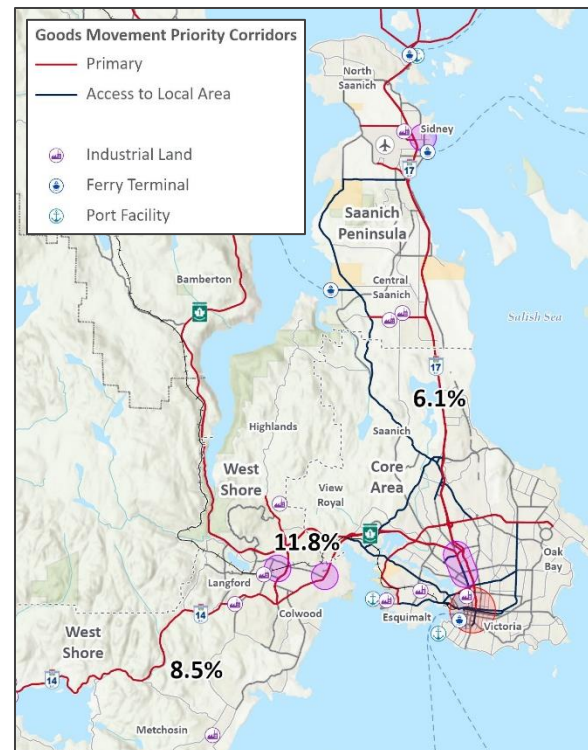
### Goods Movement

The 2018 *Vancouver Island Economic Alliance* report highlighted the fact that the Island is in the fifth year of an economic expansion as a result of the improved global economy and local population growth. The employment rate on Vancouver Island is among the highest in the province (BC Stats *Monthly Labour Force Statistics*), and that the labour markets are a challenge. Goods-producing sectors of the economy make up almost 20% of the labour force and 80% in the Service-producing sectors across the Island.

Within the South Island, the movement of goods and services are essential to the local and overall Island economy. As illustrated in **Figure 12**, the provincial highway system and many of the regional serving roadways are designated as truck routes. Highway 1 west of Old Island Highway and Highway 17 north of McKenzie Avenue both serve almost 3,500 trucks per day. These and other designated truck routes connect areas of key industrial activity areas such as Keating Cross Road / Central Saanich, as well as planned industrial expansion at Centre Mountain in Langford and Bamberton, through gateways across the Island as well as to other parts of the province through the Swartz Bay Ferry Terminal / Seaspan and the Victoria International Airport.

Preserving and maintaining mobility and reliability along identified corridors requires partnership and cooperation between the Ministry and South Island communities. Reliability issues, particularly on Highway 1 and 17 as identified above, adversely affect the efficiency and reliability of goods movement and negatively impact the local economy. Improving the connectivity of urban and rural areas for the movement of people and goods will assist the resource sectors and employment centres in the South Island, which support the economy of this region and the province.

**Figure 12. Regional Goods Movement Corridors + % Truck Traffic**



The Seaspan facility at the Swartz Bay Terminal accommodates 350 to 400 shipping containers per day. The current facility cannot meet demand for container storage and shipments are regularly diverted to larger facilities in Nanaimo. This requires that containers are driven between Nanaimo and the South Island, heightening the importance of Highway 1 and the Malahat in facilitating goods movement. The bulk of the port activity on Vancouver Island is expected to continue to be accommodated in Nanaimo.

Looking beyond the Island toward broader international markets, the Government of Canada has granted Foreign Trade Zone designation for Vancouver Island, exempting customs duties and taxes and working to support a sustainable Island economy.

## South Island Transportation System Highlights

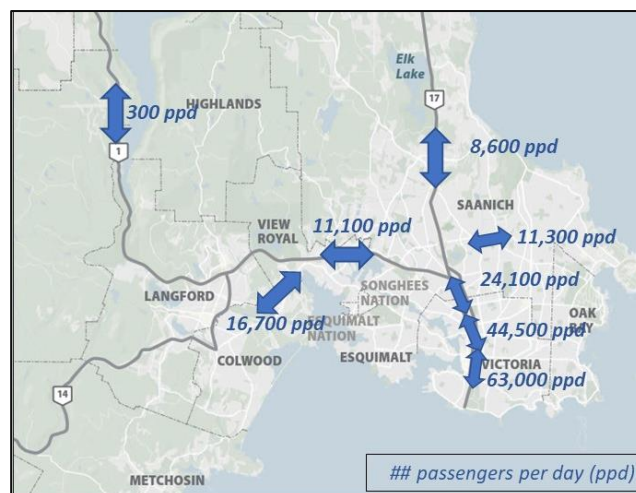
# Public Transportation

Transit has the potential to support many of the broader policy objectives for communities, climate change, transportation and the economy for the South Island, in addition to supporting matters of affordability and social equity. BC Transit in partnership with local governments plan and coordinate the delivery of transit services in the South Island. Transit operations and maintenance is carried out directly by BC Transit in the Victoria Regional Transit System, whereas operations and maintenance is carried out by a contracted operating company in the Cowichan Valley Regional Transit System. The Provincial Government contributes a portion of both operating and capital costs to support transit services and infrastructure investments in the South Island. In 2018/19, the Provincial operating cost contribution was \$40-million. Transit ridership in the South Island reached 28-million passenger trips annually - approximately 82,500 per weekday - in 2018/19, an increase of seven percent in the past 5 years.

Direct, frequent and reliable transit services are essential to support and attract inter-regional and regional travel. **Figure 13** illustrates the primary corridors providing inter-regional and regional transit service in the South Island with the daily transit ridership.

As illustrated, Highways 1 and 17 as well as Douglas Street and McKenzie Avenue all serve as the primary corridors for regional and inter-regional transit travel in the South Island. Peak transit service frequencies along these corridors vary from every 3 to 5 minutes along the Douglas Street / Highway 1 corridor to every 6 to 10 minutes along Highway 17 and the Old Island Highway. The commuter service across the Malahat offers a total of 8 trips per weekday (4 each direction) concentrated during peak commuter periods, and 6 trips (3 in each direction) on Saturdays.

**Figure 13. Inter-Regional Transit Network + Daily Transit Ridership**



Access to these core services are supported by 8 formal existing park-and-rides found at strategically located sites to support multiple travel choice connections, in addition to other informal locations where park-and-ride activities take place. Park-and-ride facilities are strategically located in close proximity to neighbourhoods where commuters start their travel to make connections with transit an attractive choice. As part of an inter-modal trip, attractive and accessible active transportation facilities providing access to major transit stop locations will make transit a more appealing option for regional and inter-regional travel.

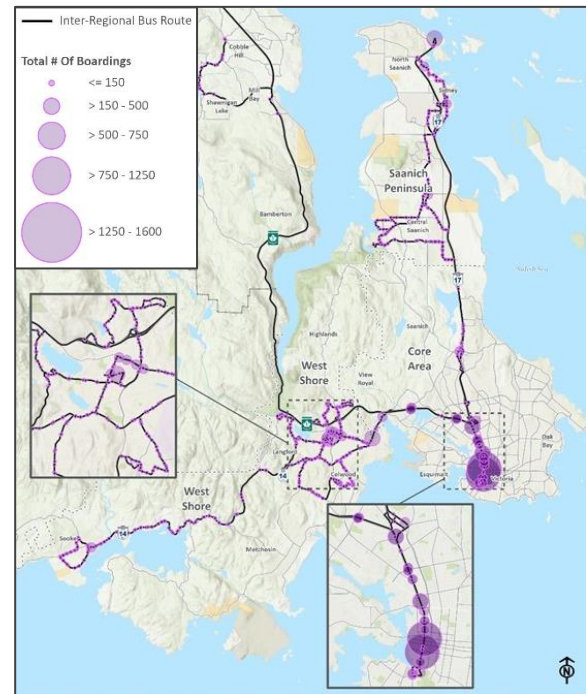
The direct, frequent transit services in the region and supporting active transportation infrastructure have been planned and implemented to connect urban centres in the region as well as key gateways to support regional travel. **Figure 14** illustrates the principal locations for connecting with regional transit services as represented by daily passenger boardings.

Looking ahead, the Victoria Regional Transit Commission has established an aggressive goal to increase transit mode share from 7.5% today regionally to 12% of all travel within the Capital Regional District. The primary markets to achieve these targets are in the Core Areas as well as within and between designated urban centres such as Uptown, Sidney, Colwood, Langford and Sooke.

Similarly, a significant increase in ridership is envisioned for the Cowichan Valley Regional Transit System, with a goal of 1.2-million passenger trips in 2036 (2.5-times 2018 ridership levels). The growth in ridership is to be achieved through strengthening the inter-city service between Duncan and Victoria, and the regional services connecting with surrounding communities, as well as through service expansion in areas such as Mill Bay and Shawnigan Lake.

Recognizing the current structure of the transit system, current transit customer markets as well as the mode share targets for transit across the South Island, improving travel times and reliability are increasingly important to attracting and supporting transit ridership growth. As described in previous sections, travel time reliability is already an issue on some of the busiest transit corridors in the South Island. This affects both service quality for transit customers and the cost to provide service.

**Figure 14. Transit Boardings, Inter-Regional Routes**



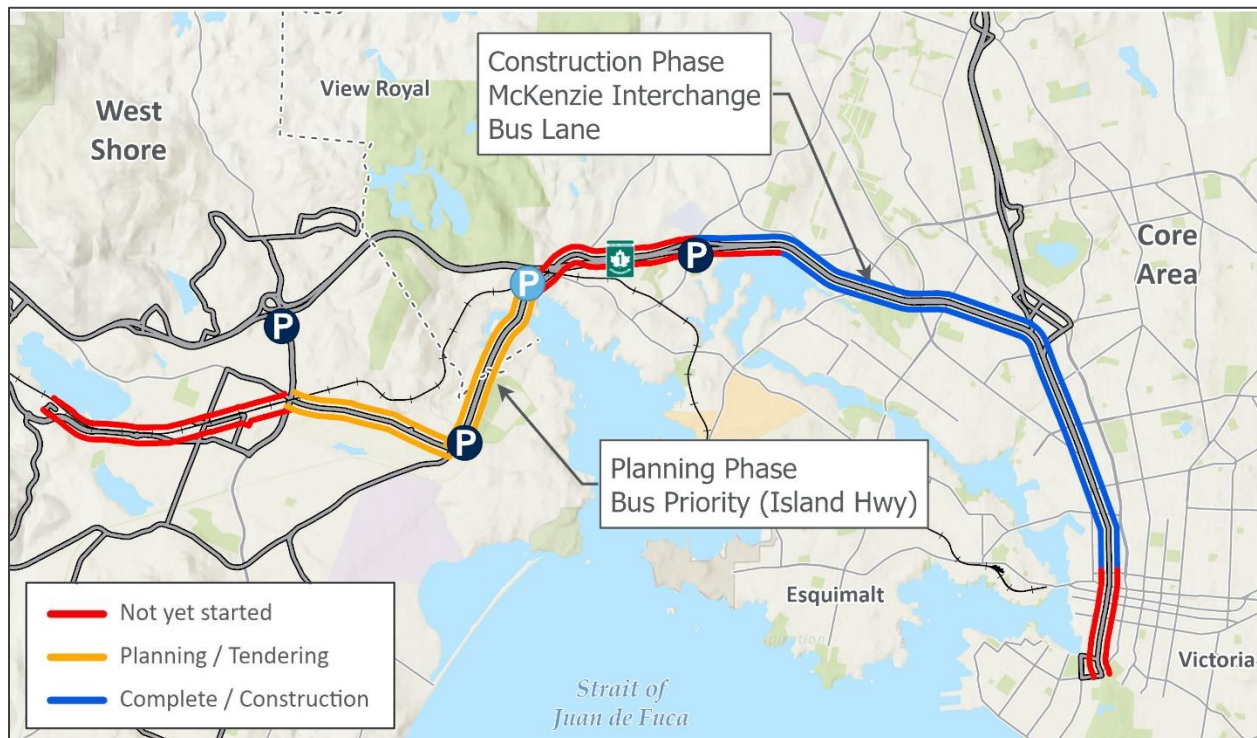
The Victoria Regional Transit Commission recently reaffirmed a priority to work with the Provincial and local governments toward completing a system of priority bus lanes along Highway 1 and Old Island Highway between Langford and Downtown Victoria. Refer to **Figure 15**. As previously illustrated, this corridor already supports the highest transit ridership today and planned growth will necessitate additional service capacity and improved reliability to support significantly increased ridership. The proposed services would improve needed connections between Langford, Colwood, Uptown, and Downtown Victoria as well as the University of Victoria and surrounding area.



Beyond this improved east-west transit connection, the *Victoria Region Transit Future Plan* and the Province's *Highway 17 Corridor Strategy* identified the potential of implementing bus lanes and other transit priority infrastructure in future to support increased transit services and improved reliability between Swartz Bay, Uptown and Downtown Victoria.

Additional park-and-ride facilities have been identified in Transit Future Plans around inter-regional transit corridors, primarily focused on locations on Highway 1 north of the Malahat and along Highway 17. These areas are generally more difficult to effectively serve with local transit and more likely to utilize park-and-ride facilities.

**Figure 15. Victoria Downtown – West Shore Transit Priority Corridor Improvements**



## South Island Transportation System Highlights

# Marine

As the southern point of Vancouver Island, ferry service is critical to access to the region. Beyond moving passenger vehicles to Metro Vancouver and other nearby regions, ferry services facilitate goods movement and tourist travel.

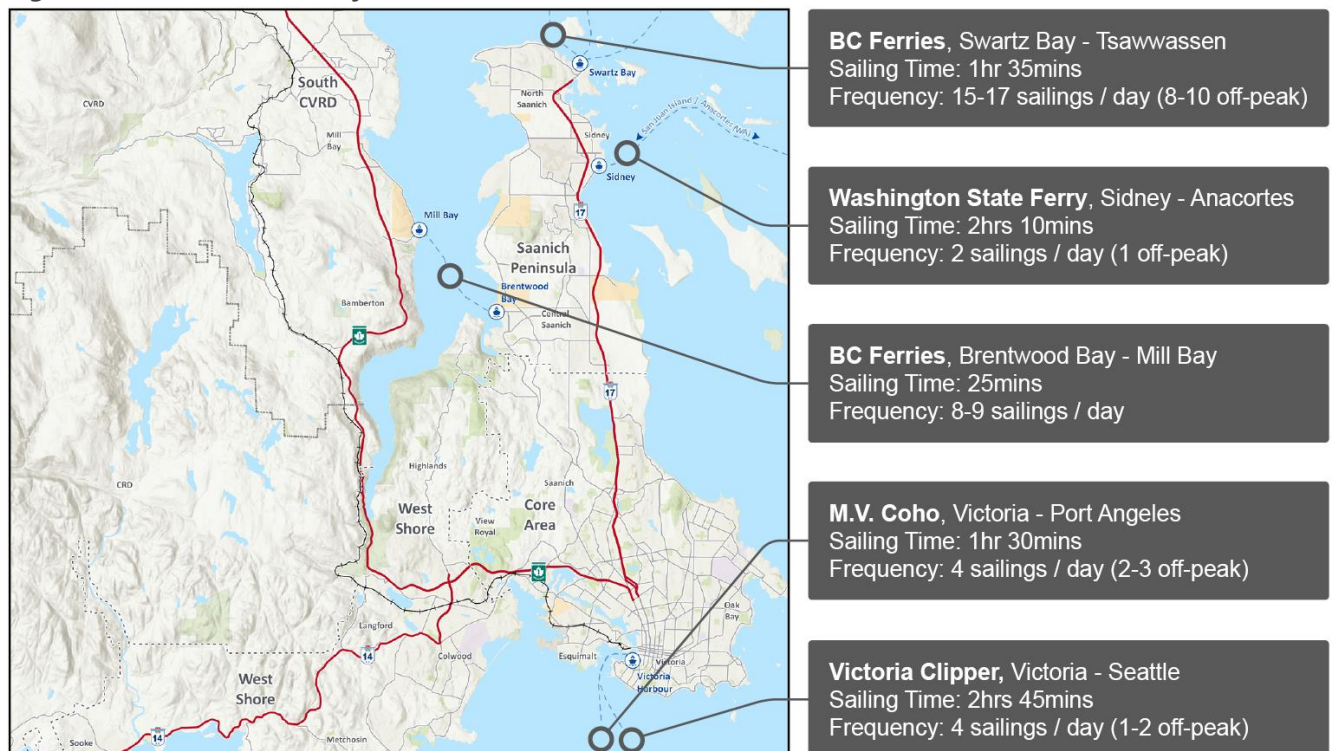
Ferry services operate at three of the identified regional gateways – Swartz Bay, Sidney, and Victoria Harbour. Highway and regional road connections to these locations facilitate vehicle and truck travel, as well as support facilities accommodating transit and active transportation.

The Swartz Bay Ferry Terminal is the most significant of the marine travel options, where service is provided to Metro Vancouver and the Gulf Islands and daily passenger volumes over 20,000. Ferry routes, service levels, and passenger and vehicle ridership are described in **Table 3** and **Figure 16**.

**Table 3. Ferry Services + Ridership**

| Route                        | Operator             | Veh / Day | Pass / Day |
|------------------------------|----------------------|-----------|------------|
| Swartz Bay-Tsawwassen        | BC Ferries           | 5,500     | 17,500     |
| Swartz Bay – Fulford Harbour | BC Ferries           | 900       | 1,900      |
| Swartz Bay – S. Gulf Islands | BC Ferries           | 700       | 1,400      |
| Mill Bay – Brentwood Bay     | BC Ferries           | 300       | 600        |
| Sidney - Anacortes           | Washington State DOT | 120       | -          |
| Victoria - Port Angeles      | Black Ball           | 350       | 2,000      |

**Figure 16. South Island Ferry Services**



## South Island Transportation System Highlights

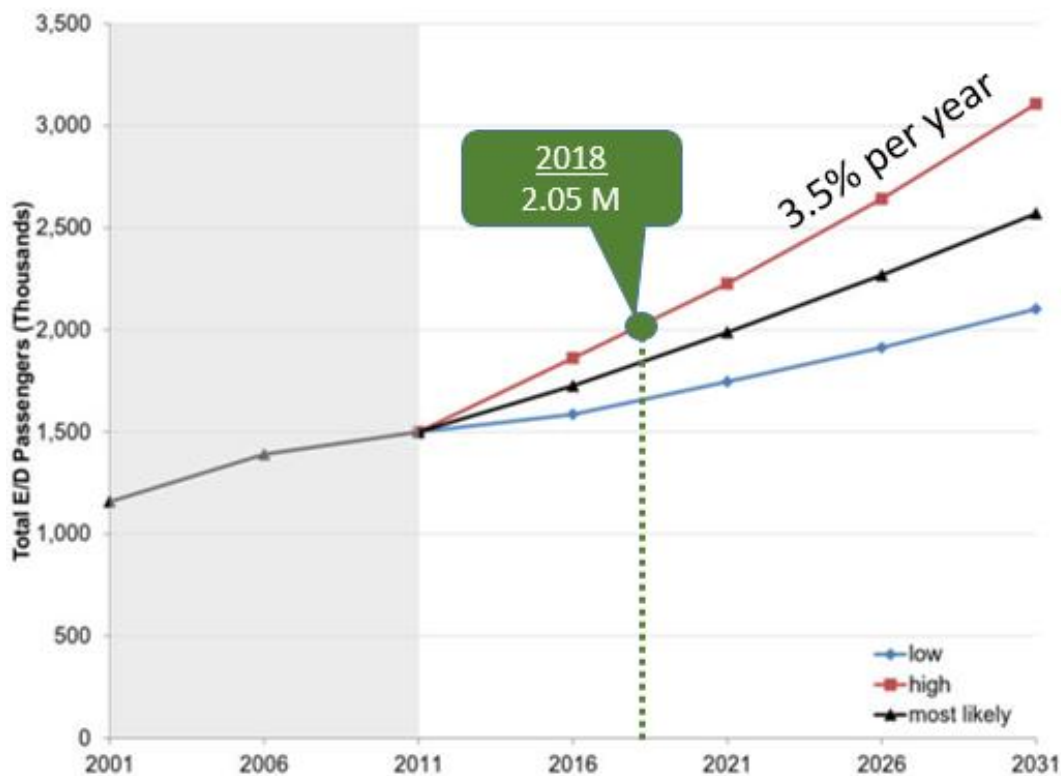
### Air

Air travel to/from the South Island is facilitated primarily through the Victoria International Airport (YYJ). Currently ten airlines provide service through the Victoria International Airport to 14 destinations. Passenger volumes for 2018 surpassed 2-million and are expected to grow as much as 3.5% per year to approximately 2.5-million passenger trips by 2031. See **Figure 17**.

Reliable and varied transportation options to/from the Victoria Airport are critical to continuing to support the Airport's expansion and providing a good traveler experience. This includes highway and regional roads facilitating vehicles, taxi, shuttle and transit services, as well as public transit service and regional active transportation networks.

Air travel is also facilitated through the Victoria Harbour, where seaplane and helicopter services are provided to six destinations. These services accommodated approximately 200,000 passengers per year, about 10% of the passenger volumes through the Victoria International Airport. Connecting transportation options are less vehicle-focused than at YYJ, and include walking, cycling, shuttles, and taxis.

**Figure 17. Victoria Airport Projected Passenger Travel Forecasts**





## South Island Transportation System Highlights

### Active Transportation

The inter-regional active transportation network consists of corridors that provide dedicated active transportation facilities over long distances throughout the South Island. These facilities support both commuter and recreational cycling, as well as other forms of active transportation, and are supported by connections to on- and off-road cycling facilities provided by regional and local governments.

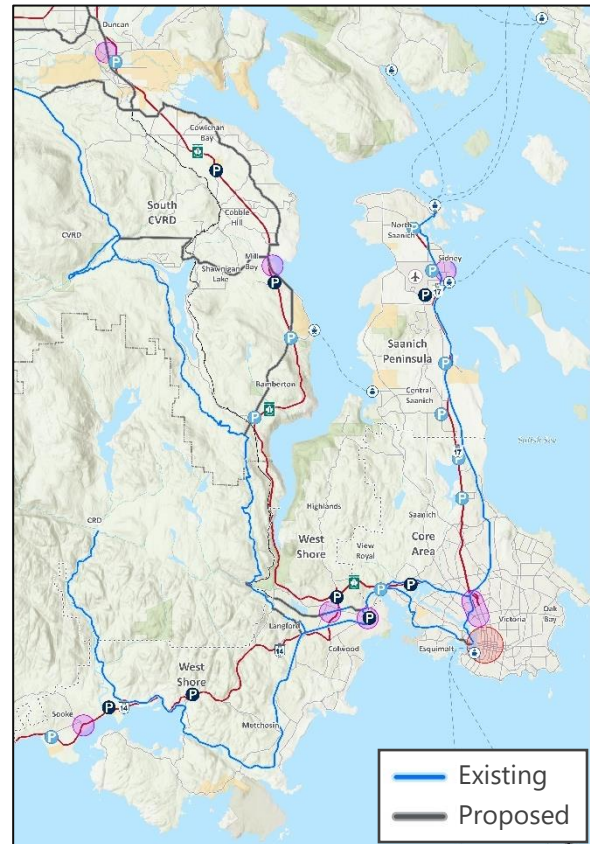
The four key inter-regional active transportation routes are shown on **Figure 18** and described below:

- The **Galloping Goose Regional Trail** is approximately 55-km long and connects downtown Victoria to Sooke.
- The **Lochside Regional Trail** is approximately 29-km long and connects Saanich and the Galloping Goose Regional Trail to the Swartz Bay Ferry Terminal.
- The **E+N Rail Trail** is approximately 17-km long and connects Victoria to Langford.
- The **TransCanada Trail** (Cowichan Valley Trail) is 100-km+ long and connects Langford and the Galloping Goose Regional Trail to Duncan.

Bicycle use and other forms of active transportation are further facilitated by support facilities that enhance the inter-regional network, such as bicycle parking (typically provided as either lockers for long-term parking or racks for short-term parking), shower / change facilities at key destinations and bike parking / racks on public transit and marine travel (i.e., ferries).

Cycling volumes are highest on inter-regional routes such as the Galloping Goose and Lochside trails. Recent development of All Ages and Abilities (AAA) facilities, particularly in Victoria and Saanich, have led to significant increases in cycling volumes on key corridors.

**Figure 18. Inter-Regional Active Transportation Network**



A number of the South Island municipalities have developed cycling network and active transportation network plans in recent years with the intent to build-out AAA networks to realize increases in cycling trips. While primarily accommodating local and regional cycling trips, these networks also support inter-regional cycling by connecting to key gateways. This regional emphasis on the cycling network buildout aligns with the Province's objectives as outlined in the *Active Transportation Strategy* and *Move. Commute. Connect.*

## South Island Transportation System Highlights

# Island Rail Corridor

The Island Rail Corridor (formerly the E & N Railway) is a short line railway on Vancouver Island, running parallel to the main Island Highway between Victoria and Courtenay, plus a branch line to Port Alberni operating parallel to Highway 4. The corridor is owned by the Island Corridor Foundation (ICF) and is operated under contract by the Southern Railway of Vancouver Island (SRVI). It consists of two tracks: a 225km track between Victoria and Courtenay, with a 64km branch line from Parksville to Port Alberni and from just south of Nanaimo to the railway's main rail yard and barge slip (dock) on the Nanaimo waterfront. Refer to **Figure 19**.

**Figure 19. Island Rail Corridor, by segment**



The ICF took over ownership of the corridor (Victoria and Port Alberni Subdivisions, Wellcox Spur and Wellcox Yard) in 2006 when it came to agreements with both CP Rail and RailAmerica to assume all rail assets in exchange for CP Rail and RailAmerica receiving federal tax credits.

Southern Railway of Vancouver Island (SVI) was appointed as railway service provider for the system by the ICF in 2006. In 2011, VIA passenger service stopped running due to safety concerns with the track and bridge conditions. The SVI continued to operate a freight rail service until 2012. SVI continues to maintain the Victoria Subdivision and Wellcox Spur to operate a freight rail service within a 10-mile (16km) radius around Wellcox Yard in Nanaimo. SVI continues to monitor and inspect the Victoria Subdivision and Wellcox assets.

The ICF, as an organization, is made up of Board of Directors. Membership is limited to local governments (five Regional Districts) and fourteen Indigenous governments whose territories are wholly or partly within the geographic area of the corridor.

A number of studies have been completed in the past ten years looking at the feasibility of restoring rail on the corridor, including a commuter service between Langford and Victoria shown in **Figure 20**.

**Figure 20. Commuter Rail Service Concept, Langford to Victoria**



## South Island Transportation System Highlights

# Transportation Demand Management (TDM)

Transportation demand management (TDM) refers to initiatives that reduce emissions and other negative impacts of private automobile travel by encouraging use of other modes, reducing the number and length of vehicle trips, and shifting trips to less congested times and routes.

The successful implementation of TDM relies on government leadership, as well as commitment and innovation from a variety of other organizations. The following are examples:

- Local government encouraging or requiring TDM in land development
- Major employers offering financial incentives for non-vehicular travel to address parking challenges or impacts on surrounding neighbourhoods
- Policy or financial support for non-vehicular travel, typically offered by senior government levels
- Encouraging non-vehicular travel during special events or to address congestion during construction
- Education or promotional programs to introduce new travel choices



The following are examples of TDM initiatives that have been pursued in the South Island:

- A **Universal Bus Pass** ('U-Pass') is a mandatory semester transit pass included in post-secondary student tuition entitling the individual to unlimited transit use. The U-Pass program is in-place at the University of Victoria, Camosun College, and Royal Roads University.
- The **ProPASS** is an employer bus pass program offering monthly transit passes deducted via payroll at a reduced rate to any organization committing ten or more individuals. An estimated 70 organizations comprising 3,000+ employees participate in the program.
- A **Carshare** service consists of a fleet of collectively owned vehicles that individuals typically pay membership dues and costs associated with the time and length of trips. The two primary carshare operators in the South Island consisting of approximately 85 vehicles.
- **Bike to Work Week** is perhaps the most successful TDM promotional event in the South Island, attracting more than 10,000 participants during the last week of May each year.
- Similar to carshare, **bikeshare** systems consist of a fleet of collectively owned bicycles. One-way bikeshare systems operate in the core municipalities and Langford, while two-way systems are offered at select employment and hotel sites in the region.



## South Island Transportation System Highlights

# New Mobility

New mobility refers to transportation services made possible by mobile technology and real-time location data, including ride hailing, rideshare, car share, bike share, and micro-transit. Previously only a concept, forms of new mobility have begun to take shape in the South Island over the past few years and provide a glimpse into our changing transportation system.

Established services such as rideshare and carshare continue to expand, now with over 70 carshare vehicles in the South Island. More recent and emerging options include bike sharing services and ride-hailing, which was recently permitted by way of provincial legislation and is currently under discussion how they will be regulated at the local level. Other new mobility options such as autonomous vehicles are still years from having an impact.

Each of these travel options share a common reliance on mobile technology and real-time location data to provide users with custom travel options. They present the opportunity to make more effective use of existing infrastructure, reduce reliance on single-occupant vehicles, enhance safety, and broaden the travel options available in the South Island. While the potential benefits are significant, there are numerous issues to be addressed as new mobility options materialize. This uncertainty highlights the need for aligned provincial and local policy that ensures new mobility options are brought forward within a framework that supports community objectives.

## Electric Vehicles

Electric vehicles (EVs) and EV charging infrastructure is one area that has rapidly expanded over the past five years, and is expected to continue to grow given the Province's commitment to 100% of all vehicle sales being zero-emissions vehicles EVs by 2040. An estimated 2,000 EVs are owned and operated in the South Island and the Province continues to support EV ownership by subsidizing the purchase of a new EV through the *Clean Energy Vehicle Program*.

There are approximately 120 charging stations in the South Island as of September 2019, according to ChargeHub. The network of charging stations is anticipated to grow as regional and local governments install new stations at public facilities and require EV charging in new development. The expanding network of public and private charging stations will continue to support EV owners and address "range anxiety" among both current and prospective EV owners.

EVs play an important role in meeting inter-regional travel demand, providing the same level of mobility as conventional vehicles but with reduced GHG emissions consistent with both provincial and local policies.

## 6. Summary

### Challenges / Opportunities

The inter-regional transportation challenges and opportunities identified in this document can be arranged into the following five key themes. The extent to which each challenge is experienced in the different areas of the South Island will help guide where investments are made.

A summary of key inter-regional transportation challenges are described below:

#### Safety

A priority throughout the South Island, safety issues are particularly evident along Highway 1 and Highway 17 where collision rates are highest at select major intersections. Improvements to the active transportation networks, such as crossings and separation from traffic, reduces the conflict with vehicles.

#### Reliability

Greater variation in travel time is an indicator of reduced reliability. The outlying areas of the South Island along the Highway 17 and Highway 14 corridors, and sections of Highway 1 outside the core areas experience issues with reliability. Improvements to the active transportation networks, such as crossings and separation from traffic, reduces the conflict with vehicles.

#### Sustainability

A shift to sustainable transportation modes is a priority throughout the province and South Island. Core areas and communities along Highway 14 and Highway 17 where travel distances, settlement patterns, and infrastructure make active transportation and transit desirable travel options are where the priority is highest for investment in sustainable travel modes.



#### Network Redundancy

Alternate route options ensure traffic is balanced and emergency services have options in case of closures. Redundancy issues are most significant along Highway 14 and Highway 1 / Malahat where alternate routes are limited.

#### Connectivity

Community connections are of greatest concern in the core areas, Highway 14 and Highway 1, and improvements targeting enhanced connectivity are highest priority in these locations. Strengthening connections between travel modes is also a key opportunity for improvement. Improvements targeting better connections are the highest priority in these locations. Strengthening connections between travel modes is also a key opportunity for improvement to support the goals for integrated transportation development.

## Informing Next Steps

The understanding of South Island travel characteristics and inter-regional transportation challenges presented in this document are intended to inform subsequent project phases. These include revisiting the previously planned initiatives highlighted in **Section 1** to determine the extent to which they align with changing regional priorities, particularly with respect to climate change and the emphasis on sustainable transportation modes.

The next steps for the Strategy process are focused on identifying improvements for multiple travel modes and strategies that best address core inter-regional transportation challenges and priorities. Identified investments are to align with the overall goals for the Strategy, while specifically addressing the key transportation challenges and opportunities in different areas of the South Island. Identified improvements and strategies will be the focus of medium- and long-term investments from both the Province and local partners.

The COVID-19 pandemic has emphasized the need to be responsive and adaptable to changing situations that can affect all aspects of day-to-day life. While it is still unknown what the lasting effects of the pandemic may be, the core values that make up the long-term strategy for a sustainable growth and a healthy economy remain unchanged. The current situation shows the need for a resilient and sustainable transportation system that can aid in our immediate recovery.





