
# COMOX VALLEY MOBILITY PRIMER

November 2021
DRAFT

Comox Valley
REGIONAL DISTRICT

comoxvalleyrd.ca

# A guide for the Comox Valley to move...

...cleaner

...healthier

**...better.**

**The Comox Valley Regional District respectfully acknowledges the land on which it operates is on the unceded traditional territory of the K'ómoks First Nation, the traditional keepers of this land.**

# What is "Mobility"?

Mobility considers not only how we travel, but why we travel, who is travelling, the travel options available to us, and the factors that lead to our travel choices.

# What is the Mobility Primer?

The Comox Valley Mobility Primer was created to inform planning and decision making around regional transportation.

It is a reference document that provides background on how Comox Valley residents travel, key shaping mobility influences, and opportunities to explore new, more effective ways to meet day-to-day transportation needs.



# Introduction:
# Leading the Comox Valley into the Future

**The way people get around is changing.** Like many other regions with a vast geographic area and a mix of urban and rural land uses, Comox Valley residents are largely dependent on private motor vehicles to fulfill their daily travel needs. Other transportation modes – including walking, cycling, and transit – also play an important role in the transportation system; however, these modes are not regularly used by many residents. Outside of traditional transportation, a series of new mobility options are emerging in response to technological advancements, changing user preferences, and shaping influences such as urban intensification and the climate crisis. These emerging mobility options include shared mobility services (ride-hailing, car sharing, and bike share), electric transportation (including cars, bicycles, and scooters), and an emphasis on connected and on-demand transportation options (planning and booking trips via mobile devices).

**As a result, the regional transportation system has the potential to adapt to new and innovative technologies**, from vehicle and street design to a shift in the way people plan, book, and pay for trips. Some emerging modes are already operating in jurisdictions across British Columbia, providing insights to our communities on the challenges and opportunities of new mobility. With continued technological advances on the horizon, innovative policies and infrastructure, improvements are needed to accommodate these emerging transportation choices.

**The Comox Valley Regional District and its partners, have an important role to play in enabling people to travel within and beyond the Comox Valley in a safe, affordable, and sustainable way.** New mobility technologies have the potential to impact the region both positively and negatively, depending on how they are managed and regulated by all levels of government. Many communities have already done the work to prepare for these emerging modes, providing many best practices for the success of new mobility in the Comox Valley. This Mobility Primer is intended to help the region assess opportunities to support change in regional mobility while ensuring that no person or community is left behind.

# Our Community

The Comox Valley covers a large geographic area and comprises diverse communities and populations. Each area has unique transportation needs, challenges, and opportunities that must be addressed as the region grows and new mobility options emerge.

**1,700** $km^2$
land area

**66%**
Live in Comox, Courtenay or Cumberland

**74,000**
people

**28%**
Regional population growth (2001-2020)

## – Equity + Inclusion

**25.6%**
people over the age of 65

**7.8%**
unemployment rate in 2015

**6.0%**
identify as Indigenous

**24%**
of households are renters

**4.0%**
identify as a visible minority

**2,815**
households are in core housing need (2020)

**13,380**
people live with a disability

**132**
people experience homelessness (2020)

**9,885**
low-income individuals based on the Low-income measure, after tax (2016)


Comox Valley Regional District

# Regional Overview

- Regional Boundary
- K'ómoks First Nation
- Member Municipality
- Electoral Area A
- Electoral Area B
- Electoral Area C
- Highway / Freeway
- Arterial
- Collector
- Ferry Routes
- Comox Valley Airport (YQQ)

# Regional Priorities

Regional mobility priorities are identified based on key strategic documents, such as the Regional Growth Strategy (RGS). The following four key priorities underpin and inform the mobility options presented throughout this document.

## Reduce GHG Emissions

Reduce transportation-related greenhouse gas (GHG) emissions in the Comox Valley, increase sustainable mode share by making walking, cycling, and transit more attractive for all trips and supporting multi-modal integration.

## Equity + Inclusion

As the second largest household expense in the Comox Valley, promote an equitable transportation system that all community members benefit from. This includes prioritizing equity priority groups and providing affordable mobility options.

## Health + Well-Being

Support healthy and active lifestyles by providing and promoting opportunities for human-powered modes and recreation in the transportation system and ensuring that transportation options in the Comox Valley are safe for all users.

## Fiscal Responsibility

Support public and private mobility across the transportation system through targeted investment in transportation infrastructure and complementary services and programs that use public funds efficiently and maximize effectiveness across travel modes.

# Regional Priorities, cont

Our shared regional priorities around reducing GHG emission, improving health & well-being, increased equity & inclusion and affordability all highlight the need to encourage sustainable transportation in place of private automobiles. The Regional Growth Strategy (RGS) clarifies the over-arching transportation goal is as follows:

**Develop an accessible, efficient and affordable multi-modal transportation network that connects Core Settlement Areas and designated Town Centres, and links the Comox Valley to neighbouring communities and regions.**

## Transportation Targets

The Regional Growth Strategy (RGS) contains specific targets relating to increasing sustainable transportation mode share and reductions in on-road transportation GHG emissions.

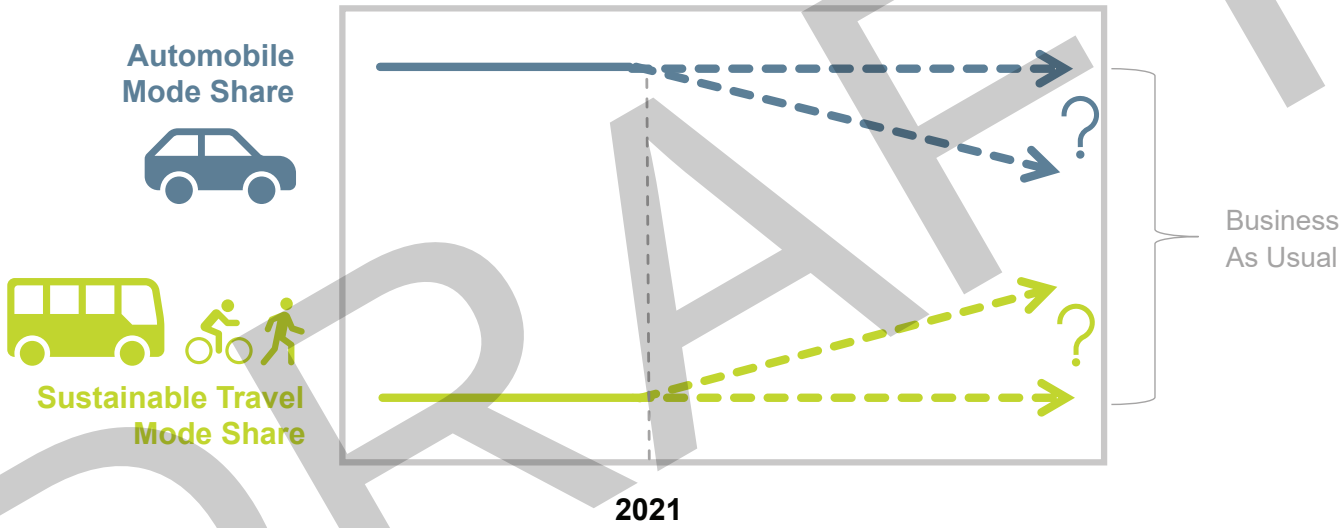
### Transportation Targets, Comox Valey Regional Growth Strategy

| | **Baseline** 2006 / 2007 | **Target** 2030 | **Source** |
|---|---|---|---|
| Transit mode share | 1% | 2.5% | BC Transit |
| % bicycle & pedestrian commuters | 9% | 20% | Census Canada |
| On-road transportation GHG emissions | 199,311 CO2e(t) | 50% reduction | CEEI |

# Regional Priorities, cont

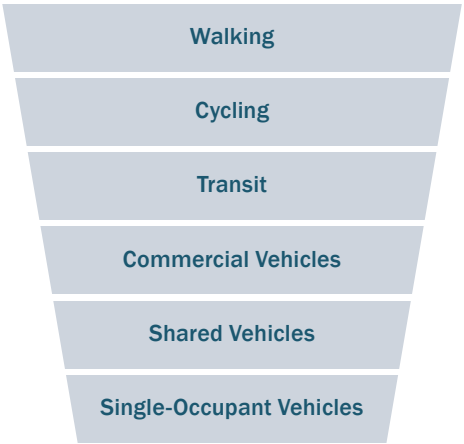
## Change in Mode Share

Travel mode choices have changed very little over time, as highlighted later in this document. Progress toward our regional priorities and achieving RGS targets will not be realized using a status quo approach to regional transportation. A paradigm shift is necessary to realize our goals. This includes decision-making that supports sustainable travel options, increased funding for active transportation and public transit (including the new Active Transportation Network Plan), and supportive land use and development. A renewed commitment to carrying out established regional and local policies is necessary, and coordinated implementation across regional partner agencies.




## Modal Priority

The hierarchy of travel mode priority directs decisions and trade-offs related to transportation planning and design to prioritize travel modes in descending order of priority – walking, cycling, transit, commercial vehicles, shared vehicles, single-occupant vehicles. Established in the 2014 Transportation Road Network Plan, the hierarchy of modal priority is a policy adopted in many communities to help guide planning and decision making on transportation matters.



# Regional Partners

Mobility services, infrastructure, and policy can be provided by any level of government as well as private companies, depending on the transportation mode and context.

## Regional Government

**Comox Valley Regional District**
Responsible for the maintenance and operations of community parks and trails, and undertakes a planning role for regional active transportation initiatives. The CVRD Board makes decisions on public transit routes, service levels, fares, and local taxation.

## Local Government

**Municipalities**
The City of Courtenay, Town of Comox, and Village of Cumberland are responsible for the planning, design, and maintenance of rights-of-way within the municipality, including roads, sidewalks, public parking, local trails, and other transportation facilities.

## Indigenous Nations

**K'ómoks First Nation**
The CVRD is located on the Unceded traditional territory of the K'ómoks First Nation (KFN). KFN is a separate and distinct Nation that governs the lands and resources on KFN Reserve lands, including community planning, development, and multi-modal transportation.

## Provincial Agencies

**BC Ministry of Transportation & Infrastructure (MOTI)** regulates al modes of transportation and is responsible for all road rights-of-way outside of the municipal boundaries and all provincial highways within and between municipalities, including Highway 19, 19A, Cliffe Avenue, and Ryan Road. The Province also provides guidance on the planning of active transportation facilities.

**BC Transit** service is provided as part of the Comox Valley Regional Transit System. BC Transit and the CVRD coordinate local governments and community members to engage in long-range and service planning initiatives.

**BC Ferries** operates three ferry services that connect the Comox Valley and provide access to the Sunshine Coast. From Comox, daily ferry service connects Vancouver Island to Powell River on the Sunshine Coast. Regular service to Denman and Hornby Islands is provided from Buckley Bay.

**BC Hydro** builds and operates a network of public electric vehicle charging stations throughout the province, including fast-charging infrastructure in the Comox Valley, and support private charging infrastructure through rebate programs.

# Roles + Responsibilities

The provision of transportation infrastructure, services and programs in the Comox Valley is the result of collaboration and shared responsibility between a range of agencies and interests.

The table below highlights the role that various agencies play in the transportation system. This is used to demonstrate the importance of regional transportation planning and cross-jurisdictional cooperation and is not an exhaustive list of partners or responsibilities.

| | CVRD | Municipality | MOTI | BC Transit | KFN | BC Ferries | BC Hydro | YQQ | Private Industries |
|---|---|---|---|---|---|---|---|---|---|
| Street Network | ✻ | P | P | | | | | | |
| Pedestrian Network | ✻ | P | ✻ | | | | | | |
| Cycling Network | ✻ | P | ✻ | | | | | | |
| Mult-Use Pathways + Trails | P | P | | | | | | | |
| Transit Service | ✻ | ✻ | ✻ | P | | | | | ✻ |
| Goods and Services Movement | | P | P | | | | | | ✻ |
| Harbour Facilities | | ✻ | P | | | P | | | |
| Airport | | | | | | | | P | ✻ |
| Parking and Curb Management | | P | P | ✻ | | | | | ✻ |
| Ride Hailing and Carshare | ✻ | P | P | | | | | | P |
| Electric Vehicle Charging | ✻ | P | ✻ | | | | P | | P |
| Shared Micromobility | ✻ | P | ✻ | | | | | | P |
| Land Use | P | P | ✻ | | P | | | | |

P *Primary Role* ✻ *Supporting Role*



**Role of Private Industry in Regional Transportation**

The Comox Valley has several existing private transportation options, including air, bus shuttles, and taxi/ride-hailing providers that provide choice and key connections across the region and inter-regionally. Many emerging mobility options such as ride-hailing, carshare, and bike share are also operated by private companies, which can reduce the costs to government agencies but are also subject to market fluctuations and private business decisions. Local governments must partner carefully with private industry to help realize the mobility benefits these services provide, while also not been seen to unfairly support private industry.

# How We Move

## Travel Choice

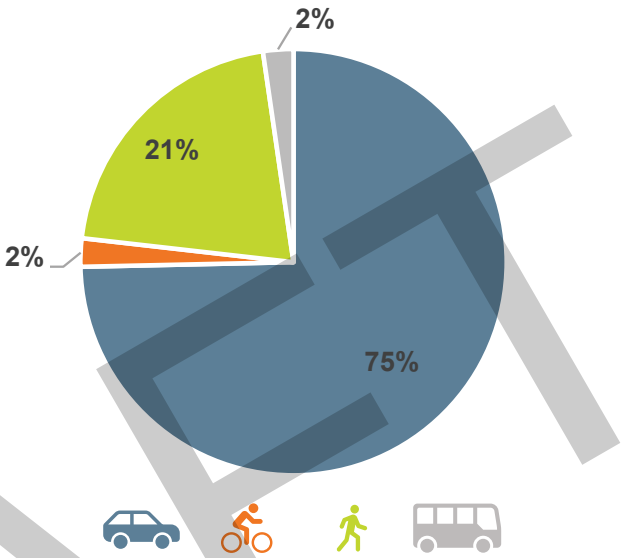
The Comox Valley is a large geographic area with many residents travelling long distances on a daily basis. Not surprisingly, driving is the primary transportation option among Comox Valley residents with an estimated 75% of all trips completed by automobile.

The remaining 25% of trips are made by sustainable travel modes, including walking, cycling and public transit.

Walking trips account for approximately 21% of all trips, which is significantly higher than the portion of trips to work by walking found through recent Censuses. This suggests non-commute trips such as recreation, shopping and school trips experience a greater rate of walking, while trips to work for most may exceed comfortable walking distance.

Cycling and walking make up only a small proportion of all trips (2% each). This suggests that the current infrastructure and services supporting people cycling and using transit is not resulting in desirable options, and that these may be key areas of focus in the region in future.

Travel Mode Share (2019)




**Mobility Data**

Regional mobility patterns and mode share information is established using "big data" sources, relying on anonymous cellphone data to locate trip origins and destinations and estimate travel mode based on travel speed. This information accounts for all trips (rather than only trips to work as captured by the Census).

**Census Data**

Journey to work information available through the Census is used to understand travel characteristics. Census data is made available every five years, providing opportunity to track change over time.

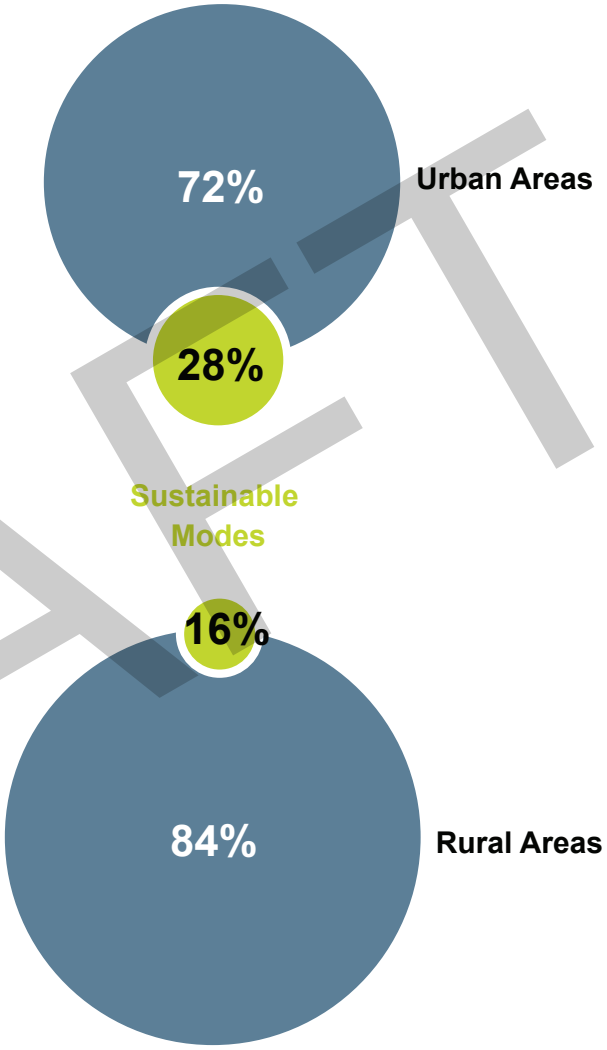
*Note: Transit mode share information is estimated based on Census mode share data (not provided through big data source)*

# Travel Choice, Urban vs. Rural Areas

Comox Valley's rural areas are lower density and more dispersed as compared to urban areas, resulting in longer trip distances and greater reliance on vehicle travel. Approximately 17 of every 20 trips in rural areas are made by vehicle, a greater proportion of vehicle trips as compared to the Comox Valley's urban areas where walking trips in particular represent a significantly greater proportion of trips.

While automobile use is prevalent in all areas of the Comox Valley, solutions to achieving a shift toward sustainable travel options must differ in urban and rural areas. Where greater active transportation infrastructure and transit service is generally found in urban areas, rural areas often lack basic facilities and experience travel distances beyond comfortable walking and cycling distance for most.

Mode Share, Urban vs. Rural Areas

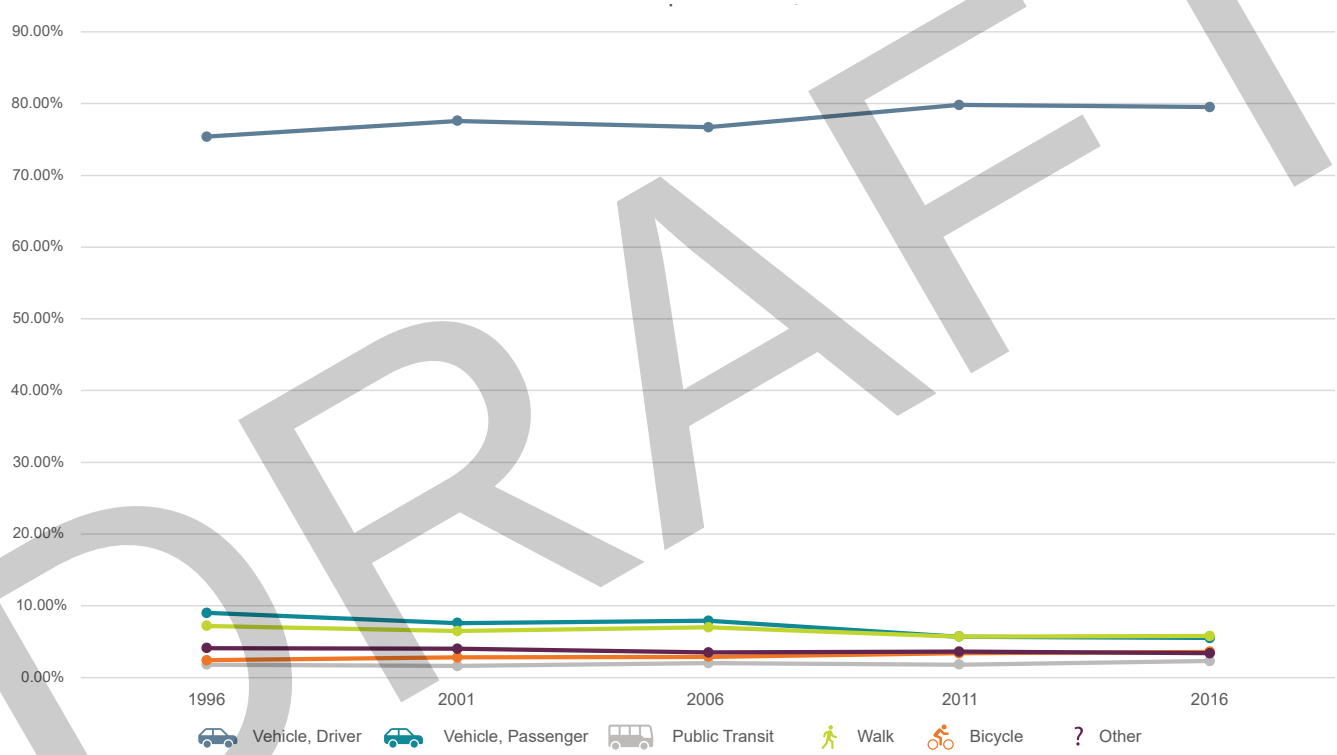


# Historic Travel Choice

Our region has experienced only modest change in travel mode share over the past 20 years. The proportion of all trips to work made by vehicle (driver or passenger) changed by 0.6% over a 20-year period (1996 to 2016).

The proportion of trips to work by sustainable travel options have also remained constant. Modest increases in public transit and cycling have been met with a reduction in walking trips. This suggests that despite efforts to facilitate travel by sustainable modes, change has been limited, suggesting the need to move away from a business-as-usual approach if change is to be realized.

### Mode Share for Trips to Work 1996 - 2016




Note: Census information from 1996 – 2006 is collected from the Comox-Strathcona Regional District subdivision and therefore does not precisely reflect the current boundaries of Comox Valley Regional District nor the Regional District's population during those years.

## Trip Distance

Trips can vary widely in duration and distance, owing to the Comox Valley's vast area and differences in land use in urban and rural areas. The average trip distance for all trips in the Comox Valley is 6.9km. For comparison, this is the approximate distance between Royston and downtown Courtenay.

**6.9 km**

avg. trip distance

Despite long average trip lengths, a significant proportion of trips are made over short distances. Approximately one-third of all trips are 2km or less, representing opportunities to facilitate walking. 82% of all trips are 10km or less, again representing a large proportion of trips that may be made by bicycle or public transit.

**82%**

of trips are less than 10km

The average trip length in urban areas is 5.7km, which is roughly half the average trip distance in rural areas. The greater trip distance experience in rural areas is a direct result of low-density land use patterns.

**34%**

of trips in rural areas are greater than 10km

Nearly 90% of urban trips are less than 10km and approximately two-thirds are less than 5km, where 34% of rural trips are 10km or longer. These figures highlight the significant opportunity to encourage sustainable transportation trip making in urban areas, particularly as future regional growth is focused in these location.

**Trip Distance, All Modes (2019)**

| | % of Total Trips | | |
|---|---|---|---|
| | All Trips | Urban Areas | Rural Areas |
| 0-2 km | 33% | 36% | 24% |
| 2-5 km | 27% | 29% | 20% |
| 5-10 km | 22% | 22% | 22% |
| 10-15 km | 8% | 7% | 13% |
| 15-20 km | 3% | 2% | 7% |
| 20-25 km | 2% | 1% | 4% |
| 25-30 km | 1% | 1% | 3% |
| 30+ km | 3% | 2% | 7% |

# Trip Distance, by Travel Mode

## Automobiles

While automobiles facilitate travel over longer distances, the average automobile trip length in the Comox Valley is 8.7 km, and nearly half of all trips by vehicle are 5 km or less. Average automobile trip distance is significantly shorter is urban areas (7.5 km) compared to rural areas (12.6 km). Trips of 10-20 km represent only 12% of automobile trips in urban areas, as compared to 23% in rural areas.

The relatively short trip distances in urban areas provides the opportunity to encourage a shift to sustainable travel modes, where many trips are well within comfortable cycling distance for most. In rural areas, longer trip distances suggest that a greater number of trips will continue to be made by automobile, with public transit and shared rides as choice alternatives to driving.

## Cycling

Trips by bicycle are typically shorter than those in automobiles. However, trip distance data suggests that 57% of bicycle trips are less than 5 km and 84% are less than 10 km. Longer distance travel is relatively rare, with only 5% of trips extending beyond 15 km.

Trips originating in rural areas are more likely to be longer than those in urban areas, with 56% of trips in rural areas over 5 km compared to 39% in urban areas. Across the Comox Valley, the average bicycle trip length is 5.8 km - in urban areas it is 5.6 km compared to 7 km in rural areas. This speaks both to the willingness of cyclists in rural areas to cycle long distances and the relative convenience of daily trips in urban areas. The similarity between trip distances for automobiles and bicycles suggests an opportunity to replace automobile trips should conditions make cycling safer and more convenient to a greater proportion of the community, with infrastructure improvements best targeted within 10-15 km of urban and rural centres.

## Walking

With 61% of walking trips less than 1 km and 87% less than 2 km, opportunities to encourage more walking trips are to be focused nearby key destinations – schools, parks, employment and commercial areas.

Interestingly, the average walking trip length is less in rural areas than in urban areas, suggesting perhaps that rural residents are making only the most fundamental walking trips (i.e., recreation, school), while urban walking trips are made to a broader range of destinations.

Average Trip Length by Mode

**1.1 km**
Walking

**5.8 km**
Bicycles

**8.7 km**
Automobile

## Travel Origin Destination

Understanding where trips begin and end is important to developing mobility policy, infrastructure, and programs that best meet travel needs in the region. Mobility data suggests – as expected - that most trips start or end in urban areas, where a large number of Comox Valley residents live and/or travel to access employment, schools, shopping and services.

Over half of all trips are within or between Comox, Courtenay and Cumberland, the region's population and employment centres.

Trips associated with rural areas make a higher proportion of trips to/from outside of their zone towards the urban areas where workplaces and the most convenient shops and services are most likely to be located. An exception to this pattern are Denman and Hornby Islands, where trips are largely within the island communities.

Urban areas are a key destination for regional trip making, with nearly 85% of regional trips beginning or ending in urban areas (compared to approximately 66% of residents residing in municipalities). The areas experiencing the greatest number of trip origins and destinations include:

- Courtenay West (40%);
- Courtenay East (34%); and
- Comox (28%).

These movement patterns help us to understand where travel demand is highest and where possible improvements should be focused to benefit the greatest number of trips.

Trips to/from Comox Valley North (18%) represent over twice the number of trips to/from Comox Valley South (8%).

Approximately 8% of all trips begin or end outside of the Comox Valley, demonstrating the magnitude of inter-regional trip making to the Nanaimo Region and Campbell River / Strathcona Region.

**55%**

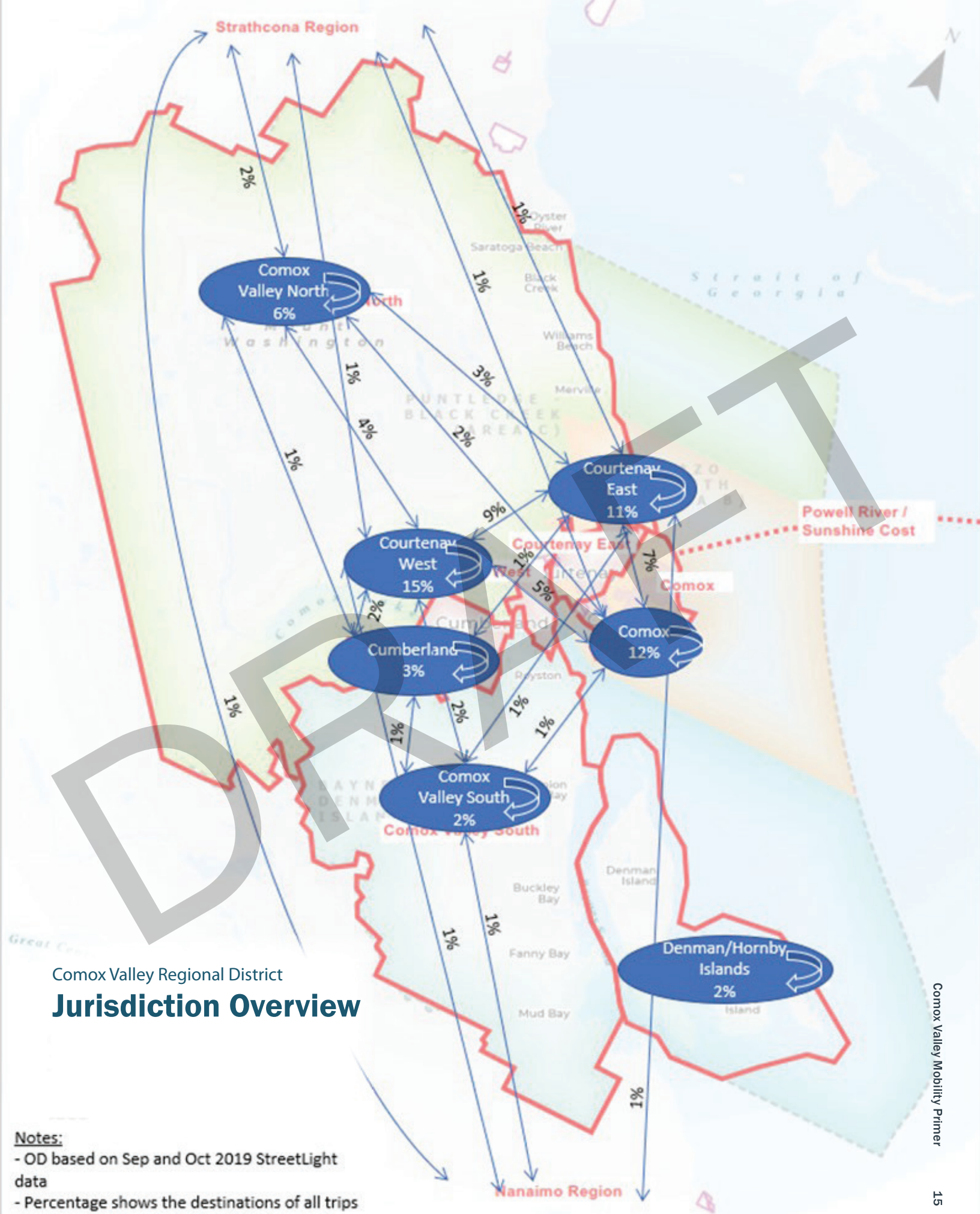
of trips are entirely within urban areas

**8%**

of trips begin or end outside of the comox valley

**Two-thirds**

of rural trips are to/from urban areas






Comox Valley Regional District

# Jurisdiction Overview

Notes:

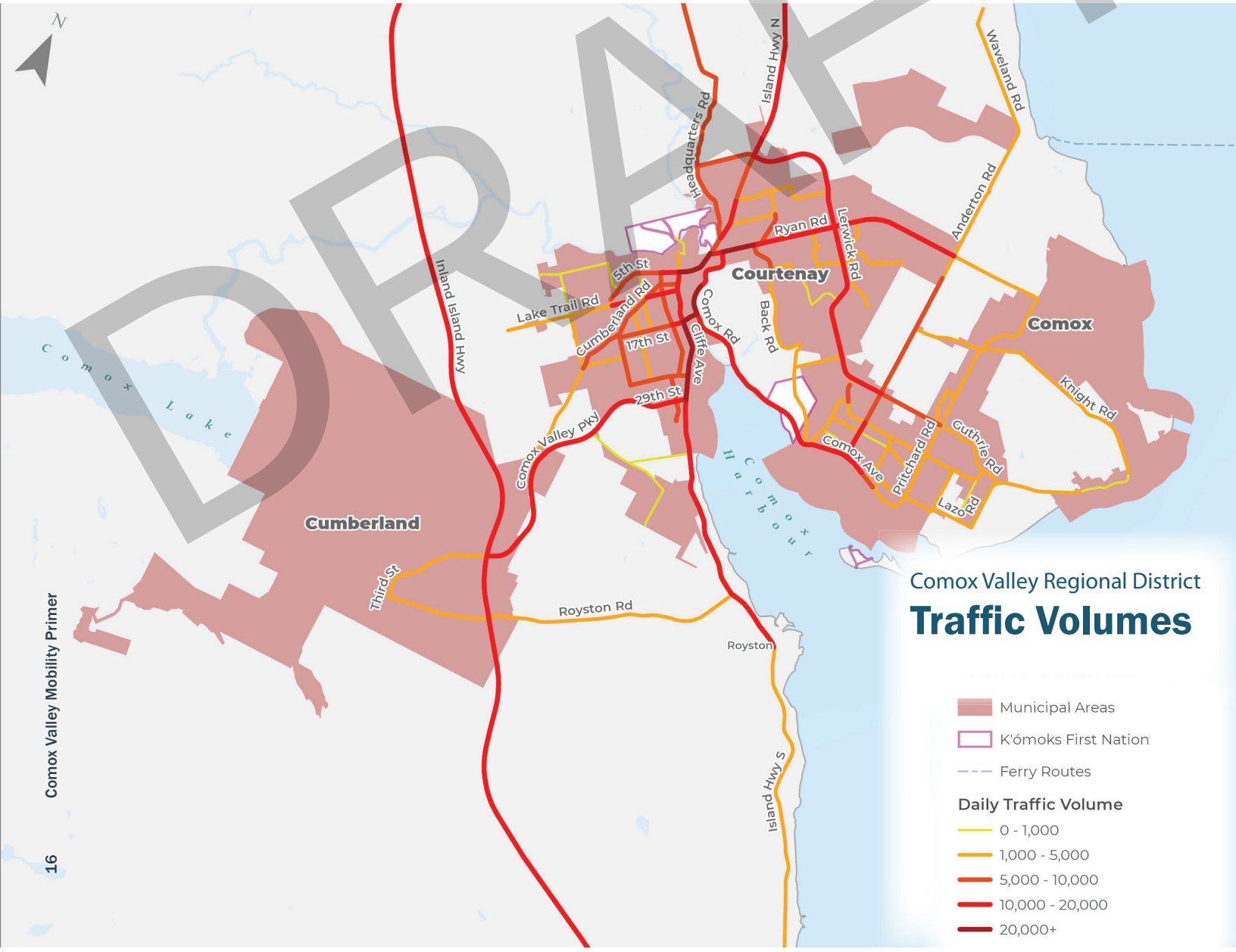
- OD based on Sep and Oct 2019 StreetLight data
- Percentage shows the destinations of all trips generated in the region for all day type and time

## Traffic Volumes on Key Corridors

The major road network handles the bulk of the daily vehicle trips in the Comox Valley. These include trips that are both local and regional in nature, as well as trips made for a wide variety of purposes - commute, school, recreation and otherwise.

The visual below highlights approximate daily traffic volumes along key corridors. Some of the region's busiest corridors – Ryan Road, Cliffe Avenue - accommodate in excess of 20,000 vehicles per day. This information helps highlight where corridors with high traffic volumes might necessitate safe, separated active transportation facilities and/or where alternate corridors with lower traffic volumes may be considered.





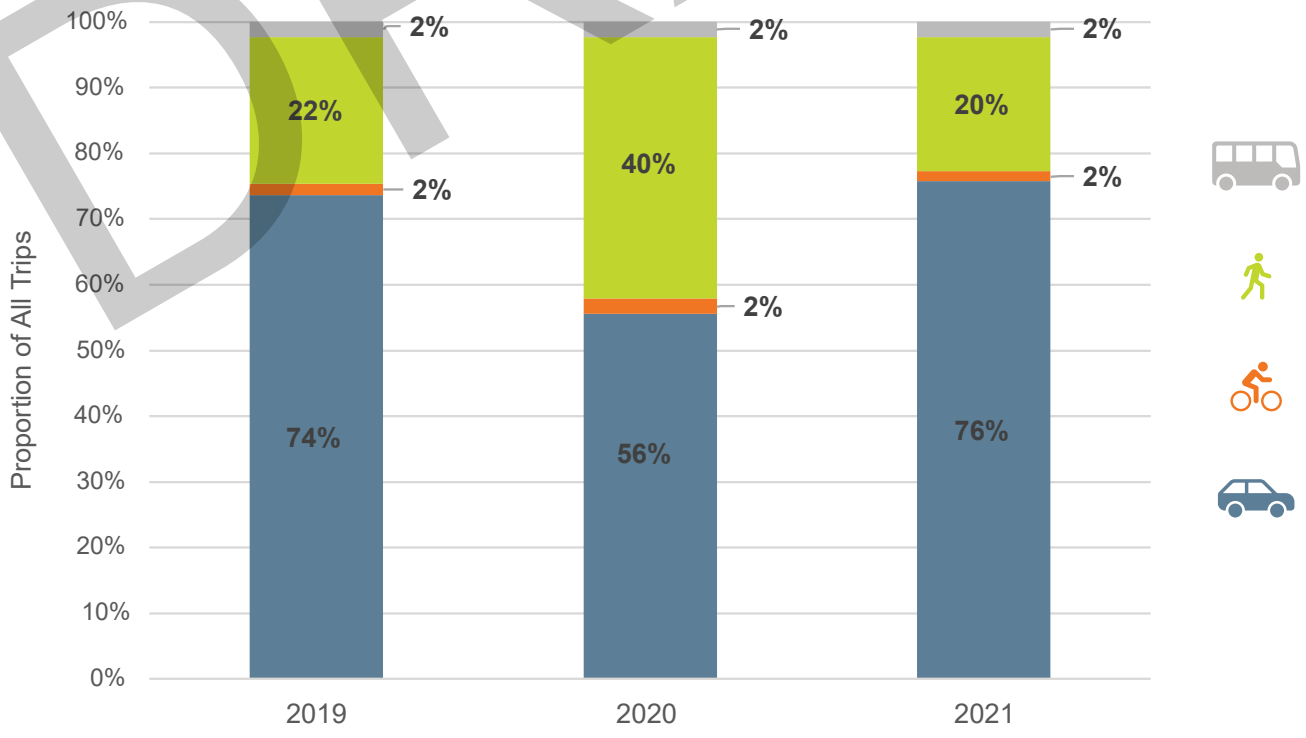
# COVID-19 Impact on Transportation

The on-going COVID-19 pandemic presented a unique moment for transportation in the Comox Valley. As schools and workplaces moved to virtual spaces and trips outside of communities were discouraged, mobility patterns changed.

Regional mobility data collected March of 2019, 2020, and 2021 was used to compare mode share before and during the pandemic. The diagram below shows a dramatic increase in pedestrian trips from 22% (2019) to 40% (2020), which reduced again in 2021 with re-opening measures to 20%. An inverse trend was observed for automobile trips with an 18% decrease between 2019 and 2020, before returning above pre-pandemic levels in 2021.

These large changes in travel pattern show the extent to which the pandemic had influenced travel in the Comox Valley. The large fluctuation in automobile mode share highlights the extent to which trip making may be replaced by tele-commuting or other alternatives, along with changing habits in other daily routines, such as less frequent shopping trips. Such shifts suggest that Comox Valley residents may be challenged to reach their workplace without an automobile or are dependent on their vehicle to shop, travel to school, or recreate in the community. The corresponding increase in pedestrian trips suggests that residents either replaced previously automobile dependent trips with walking or pandemic-related lifestyle changes resulted in a greater desire to walk for health, recreation, or social activities.

### Travel Mode Share, March 2019, 2020 & 2021



# Shaping Influences

## How important is mobility in creating an equitable community?

Equity means striving for a just and fair society where all people can participate and reach their full potential. Many factors influence people's health, well-being, and access to resources, opportunities, and services – including transportation. These factors can include race, gender, sexual orientation, income, age, ability, and religion. Individuals can belong to many different groups at once, and the intersection of these identity characteristics creates unique experiences of discrimination and privilege. It is the responsibility of governments to address structural inequities and ensure communities are healthy, vibrant, diverse, and inclusive for all, with a focus on equity priority groups. This means prioritizing people and populations who are being underserved, mis-served, or disadvantaged by policies, procedures, and programs and have historically faced barriers that impact their ability to participate equally in society, including accessing transportation.

The CVRD's Poverty Reduction Assessment & Strategy outlines various "game changer" strategies that positively impact the lives of those people living in the CVRD who may be experiencing poverty, including access to safe, affordable transportation. Of importance, the Strategy identifies an equity lens is to be applied in all regional and local government programs and services (Game Changer 3), as well as a need to align transportation network planning with an equity framework (Game Changer 13). The community has identified access to transportation as a barrier to meeting their basic needs and an area where they currently have negative experiences. People are having to make transportation choices that make them feel unsafe in order to use public transportation systems or facilities, or spend a large portion of their income on transportation such as owning and maintaining a vehicle in order to access employment, education, and social supports. The Strategy shows that transportation is a major area of concern in the community, and action in this area can significantly address poverty reduction in the Comox Valley.

To improve equity in transportation, equity priority groups need better access to safe, affordable, and reliable transportation options such as public transit and active transportation. Often that means focusing investments into neighborhoods and communities that historically have been underserved when it comes to transportation funding. New mobility technologies have the potential to contribute to transportation equity, but without proper planning and regulation, they could further contribute to existing inequities. New mobility options often rely on access to technology, so it is important to consider people without access to smart phones, mobile data, credit cards/mobile payment, and even driver's licenses.

## How is climate change mitigation achieved through mobility?

The transportation sector is the largest emitter of greenhouse gas (GHG) emissions in the Comox Valley and represents a key area for climate action. In the face of the climate crisis, the Region must adapt to become more resilient. Sustainable transportation systems produce fewer GHG emissions and are resilient to climate impacts, providing alternative options when one mode is disrupted by a climate disaster that degrades or damages infrastructure.

Reducing transportation related GHGs requires supporting the shift to zero-emission vehicles (ZEV) and reducing total vehicle kilometres driven by encouraging sustainable and active modes, such as transit, walking, and cycling. Active transportation commuters have about one-tenth the ecological footprint of a person who commutes by motor vehicle. Further, creating walkable neighbourhoods has several environment co-benefits. For example, features such as street trees, rain gardens, and greenways mitigate urban heat islands, provide natural habitats, and manage stormwater, all helping with climate change mitigation and adaptation.

## How are mobility trends changing through generations?

Long-range planning needs to consider future populations, and there is a generational shift occurring regarding transportation trends and expectations – “car culture” is losing its alure for many. According to ICBC data, the demand for driver’s licenses among youth in British Columbia has been decreasing, even outside of transit friendly communities. Younger generations are demanding increased government action on climate change and social equity issues, increased affordability, and more convenient, multi-modal, and on-demand transportation options.

Further, the Comox Valley has a higher population of seniors than that of other communities and it is expected to grow. With a large portion of its population choosing not to drive or looking for accessible alternatives, the Comox Valley’s transportation system needs to adapt to these changing preferences to ensure that both current and future residents can meet their transportation needs.

## How do land use and transportation planning support one another?

Integrating land use planning and transportation can ensure connected, sustainable, and complete communities. Single family and urban sprawl neighbourhoods create longer travel distances and reduce the available travel options, resulting in car dependency. Conversely, where communities invest in vibrant and attractive neighbourhoods with a range of pedestrian-scale amenities, people are encouraged to experience the street by foot or bicycle. A growing planning concept is the "15-minute neighbourhood," where people can meet most of their daily needs – including working, recreating, learning, and shopping – within a 15-minute walk of their home. "If you build it, they will come" stands true for transportation infrastructure – providing safe, connected, and reliable transportation options can change people's travel behaviour and habits. This is commonly referred to as transportation demand management or "TDM".

In the region, residents have typically moved into suburban developments to be able to be able to afford a home. Strategies outlined in the Regional Growth Strategy recognize this trend and have set Growth Management Principles to encourage efficient use of land, smart growth and providing greater transportation choices.

It is not on the municipality or region to build or program these investments alone – private developments are increasingly shaping our built environment and mobility options. Working with developers, municipal and regional governments can influence key land use and mobility improvements, including updating parking policies, installing secure bicycle parking, providing streetscape and building frontage improvements that improve walkability, and providing electric vehicle charging infrastructure.

## How can policy interventions create behaviour change in transportation?

Most people choose to use a private automobile due to the inherent convenience and lack of viable alternatives. However, through targeted interventions and demand management, there are opportunities to decrease convenience and increase costs of automobile use relative to alternatives such as cycling and transit.

Mobility management refers to interventions in the transportation system that aim to change user behaviours, often involving pricing, restrictions, and adjusting supply, with the goal of creating a more efficient system by reducing the need for new, costly automobile infrastructure and encouraging transit and active transportation.

Managing the supply and cost of parking is the most common example. Parking provided on-street and in public lots is public space, which local communities have direct influence over how it is used. This includes considering how it might best be managed as parking and/or identifying opportunities to repurpose parking to support other community activities.

Parking pricing in the Comox Valley is limited only to a few select locations. Not only does this result in limited revenue generation to offset the costs of building and maintaining parking facilities, it fails to recognize the value of public space dedicated to parking and the lost opportunity to accommodate other public activities. Other communities have pursued more sophisticated parking strategies that include time-limited parking to encourage turnover and introducing metered parking zones in high demand areas, both in an effort to make best use of available parking resources and generate revenue to fund sustainable transportation service and infrastructure improvements to help support a shift toward sustainable travel modes.

## What is the value of the curbside?

The curb is not simply the concrete separating the sidewalk and the street, rather it is the interface between mobility and access - between going somewhere and being somewhere. Where traditionally the curbside has been used to accommodate on-street parking, it is increasingly considered to be a more flexible space that can accommodate a range of activities such as loading, bus stops, bicycle facilities, and public realm improvements (e.g., wider sidewalks, curb extensions, parklets, and patios).

The curbside is a valuable public asset due to growing competition for space. This competition for curb space is continually increasing as emerging mobility options such as ride-hailing, bike share, and growth in e-commerce resulting in increased deliveries continue to become more prevalent. Increasingly, communities are treating the curb as a transportation amenity and developing strategies to prioritize different uses.

## How is community access improved through transportation?

Accessibility refers to the degree of ease that something (e.g., program, service, place) can be used and enjoyed by all people, including those with disabilities. Our transportation system must respond to transportation needs that vary from individual to individual. An estimated 13,680 residents in the Comox Valley are living with at least one disability. As the population ages, this number is predicted to rise, with 58.2% growth rate in the senior population between 2006 and 2016. A senior might rely on transit because they no longer feel comfortable driving, and someone in a wheelchair might rely on a complete and accessible sidewalk network. Providing accessible transportation options can help seniors age in place while also supporting all others with disabilities.

Accessibility requires deliberate planning, design, and effort and should be incorporated into all programs, services, policies, and infrastructure design. Universal design ensures that the built environment is accessible to people of all ages and abilities, regardless of any type of physical or cognitive impairment. New mobility options must be assessed with a universal design lens to ensure they enhance mobility for all. For example, ride-hailing and micromobility technology is currently limited in its delivery to provide services to people with disabilities. Ensuring ride hailing vehicles are accessible, incorporating EV charging technology in accessible parking stalls, and providing e-bike rebates for seniors are all examples of making new mobility more accessible.

## How has COVID-19 reshaped how we travel?

The COVID-19 pandemic has impacted mobility patterns and reshaped the way people use and travel through public spaces. Many cities reallocated road space by removing parking or travel lanes to provide room for physical distancing, including temporary walking and cycling facilities as well as outdoor patios and parklets. COVID-19 also forced many to work from home. It is expected that may jobs will keep hybrid work arrangements post-pandemic, which could mean long-term changes to typical commute patterns and traffic volumes.

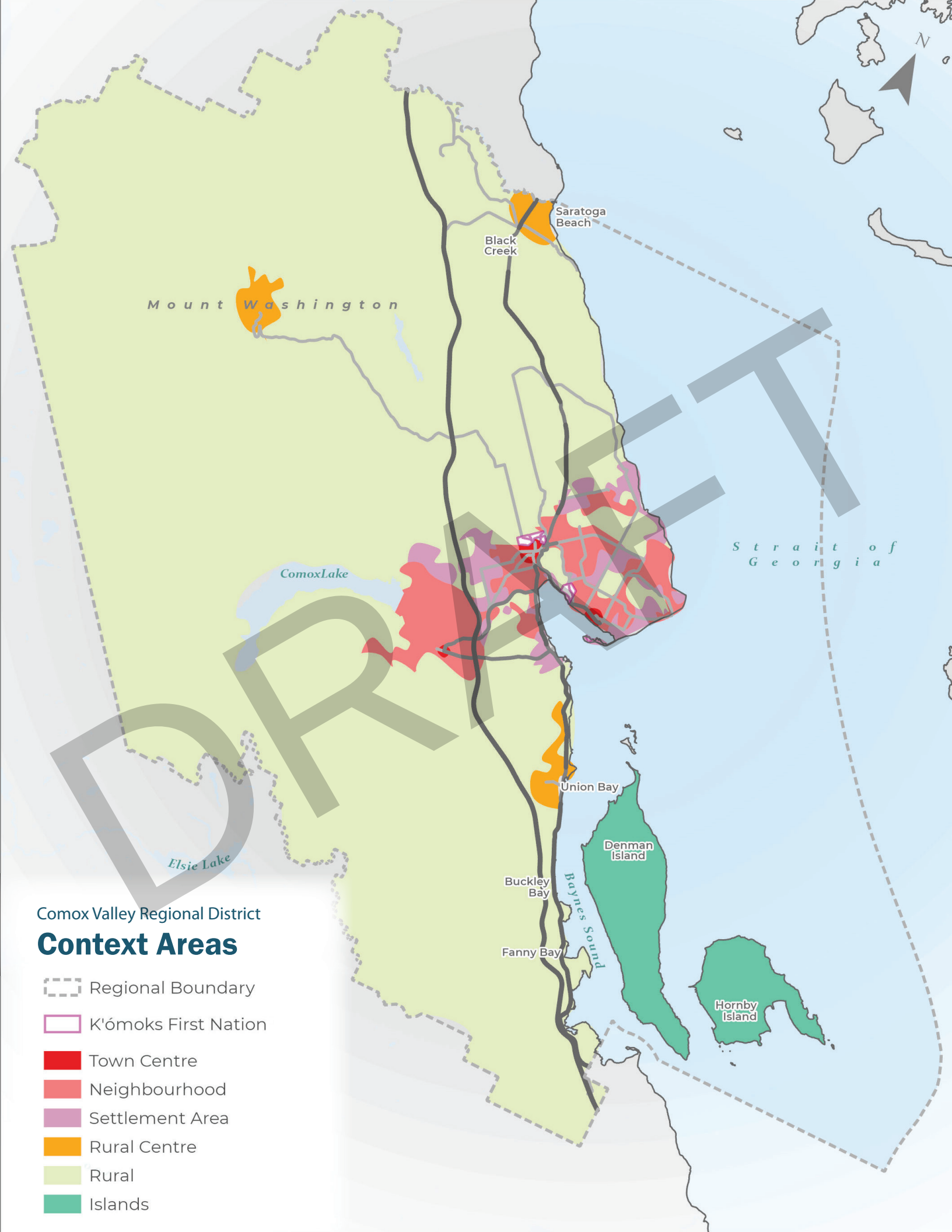
The pandemic has also exacerbated existing inequalities in the transportation system – working from home percentages differ greatly based on education, income, and other demographics, with the opportunity to work from home not equally available to all residents. System-wide multi-modal transportation improvements remain important to support residents and businesses that continue to rely on the transportation network. Road space reallocation efforts have also underscored the reality that relatively little space is allotted to walking, cycling, and the activation of the public realm, with most of the public right-of-way dedicated to the operation and storage of private passenger vehicles. Coming out of COVID, there is positive momentum towards 'building back better' and making major shifts in the way people and goods travel as well as the way transportation infrastructure and services are provided.

## How do online transportation services enhance mobility?

More and more, transportation is becoming a service that can be accessed and purchased online. Mobility-as-a-service (MaaS) refers to the technological shift towards shared, integrated transportation systems, including carshare, ride hailing, and micromobility. Smart phone technology and mobility apps can be used to book and pay for trips on a variety of modes, with seamless multi-modal integration – i.e., a single mobile app can show a user route options and prices for transit, bike share, ride hailing, car sharing, and other modes.

By making shared, multi-modal transportation easier, this can reduce the need for car ownership. However, while MaaS can serve and improve transportation access for many, it also leads to larger barriers in equity for people without access to a smartphone and/or living in areas without reliable internet services.

Many emerging transportation options utilize huge amounts of data from a wide range of sources, both government-provided and user provided. This includes GPS-based applications, mobile phone positioning, satellite imagery, and others. This data can enable a better understanding of travel patterns and the ability to actively manage transportation infrastructure, including parking and mobility pricing. It is important to ensure the safety and anonymity of private user data by implanting policies and entering into data sharing agreements with private operators to gain access to this valuable and sensitive data. Additionally, having local, up to date transportation data is crucial for the success of these digital services.




Comox Valley Regional District

# Context Areas

- Regional Boundary
- K'ómoks First Nation
- Town Centre
- Neighbourhood
- Settlement Area
- Rural Centre
- Rural
- Islands

# Mobility Options

The mobility options available to Comox Valley residents and visitors directly influence how we travel. While there are whole host of existing travel options that influence how we travel today – driving, walking, cycling, public transit, to name a few – a series of emerging mobility options will help define how we travel in future.

The following section describes the full suite of mobility options available in the Comox Valley – both **existing** and **emerging**. It is imperative that all mobility options are understood for the role they play in fulfilling daily travel needs, as well the potential – particularly among emerging options – to be supported and encouraged to help achieve broad regional objectives.

## Existing Options

Mobility options historically and currently available in the Comox Valley that residents and visitors are all generally familiar with.

## Emerging Options

Mobility options that have only recently become available or are not yet available in the Comox Valley. These options require a greater level of understanding and comfort among residents and visitors, as well as new approaches and added emphasis from local jurisdictions if they are to be successfully implemented.

# Existing Options

**Driving:** The existing transportation system is built around the automobile, with an average of 1.1 personal vehicles per household (2016) and around 36,500 registered vehicles in the region. This leads to the need for excess road building, maintenance, congestion, and GHG emissions. As of 2020, 387 electric vehicles were registered in the Comox Valley.

**Public Transit:** Transit is well-established in the region and includes conventional transit and handyDART services. Transit service in the Comox Valley currently includes fifteen routes largely focused in Courtenay, Comox, and Cumberland. Recent route re-structuring resulted in the No.1 route - a frequent corridor providing connection between Courtenay, North Island College and Comox.

**Active Transportation:** The proportion of trips made by public transit, cycling and walking make up 28% of trips in urban areas. Facilities supporting walking and cycling include sidewalks and on-road cycling facilities in urban communities, as well as trails and roadside facilities in rural areas (including over 200 km of local trails in rural areas).

**Ferries:** There are two ferry services in the Comox Valley. Service to Powell River is supported through the Little River terminal, while service to Denman and Hornby Island is through the Buckley Bay terminal (and via the Denman West, Gravelly Bay and Shingle Spit terminals).

**Air Travel:** Passenger and freight air travel is through the Comox Airport providing travel to destinations on Vancouver Island, the Lower Mainland and elsewhere in Western Canada. Float plane service is also available at the Comox Valley Marina.

**Private Transportation:** A range of private operators help support regional mobility, including taxi services, shuttles (i.e., airport, hotels), school bussing, and inter-regional bus service to destinations such as Mount Washington.

# Emerging Options

Mobility existing mobility options will remain foundational modes of transportation, new technologies and service innovations will give us all additional options to meet mobility needs with the potential to be more sustainable, affordable, and convenient. A series of emerging mobility options are explored on the following pages. For each, a description is provided of the mode or service, areas (or context) where they are appropriate, relative cost and complexity to implement, and specific actions for regional partners.

The following emerging mobility options are considered on the following pages:

- **Zero Emission Vehicles (ZEVs)**
- **Electric Bicycles**
- **Micromobility**
- **Shared Micromobility**
- **Carshare**
- **Ride-Hailing**
- **On-Demand Transit**

### What is New Mobility?

New Mobility refers to our suite of existing and future technology-enabled, integrated and (nearly) door-to-door mobility options. Where conventional transportation options largely rely on infrastructure and service provision, our community aspires to embrace this new approach to meeting travel demand using customizable, coordinated and on-demand opportunities.

### Autonomous Vehicles

Partially automated vehicles are already assisting drivers in the form of cruise control, automated braking, and other safety features. Highly automated vehicles - often referred to as "driverless or autonomous cars" – are still being tested and are not expected on public roads in the near-term. These more advanced vehicles have the potential to reshape our long-term future transportation system, impacting road safety, traffic congestion, mobility equity, and environmental health.

### Priorities

*Established regional priorities that are addressed with each strategy*

- Reduce GHG Emissions
- Equity + Inclusion
- Health + Well-Being
- Fiscal Responsibility

### Context Areas

*Areas of the Comox Valley where strategies are appropriate*

- Town Centre
- Rural Centre
- Neighbourhood
- Rural
- Settlement Area
- Island

# Zero Emission Vehicles

**What is it?**

Zero Emission Vehicles (ZEVs) include any motor vehicle that does not emit GHG emissions, including electric vehicles (EVs). Hybrid and plug-in hybrid vehicles use a mixture of petroleum and battery power, resulting in reduced emissions when using battery power. While the overall number of EVs remains relatively low, uptake has increased significantly. This trend is highly likely to continue, with the costs of batteries declining, charging stations becoming more prevalent, government subsidies, and the federal and provincial governments each banning the sale of new gas-powered vehicles.

| Types of ZEV | Power Source | Cost | Range | Infrastructure |
|---|---|---|---|---|
| Plug-In Hybrid Vehicles (PHEVs) | Combines a fuel-based engine with an electric motor to power the vehicle | $$ | 50-100 km (battery) | Charging stations (see table below) |
| Electric Vehicles (EVs) | Powered by batteries which store charge | $$$ | 160-500km | |

As advances in battery technology make it more affordable for larger, heavier vehicles like SUVs and trucks to become electric, uptake is expected to increase in the next 5-10 years.

The availability of EV charging is a factor in facilitating adoption of EVs. Charging stations may be installed by the municipalities, the CVRD, or other public agency, or provided on private property including existing gas stations. Development regulations present an opportunity to ensure appropriate EV charging considerations are included in new development, either by requiring that a development is “EV ready” (i.e., future-proofing) or by requiring the infrastructure when built.

**EV Charging**

There are three levels of EV chargers, as outlined to the right:

| | Charging Time | Other Components |
|---|---|---|
| **Level 1** | 8 to 12 hours to fully charge | Common household outlets |
| **Level 2** | 4-6 hours to fully charge | Compatible with all electric vehicles and plug-in electric hybrid vehicles |
| **Level 3** | 80% charge in 30 minutes | Not compatible with all vehicles |

# Zero Emission Vehicles (cont.)

**What can be done?**

- **ZEV.1 Create an EV Subsidy Program**
  To reduce the cost of an EV and facilitate more wide-spread ownership, the CVRD and local jurisdictions may consider a subsidy program to help offset costs. The program could be limited initially to focus on low-income residents or others experiencing barriers to EV ownership.
- **ZEV.2 Include EV Charging Requirements in Development Regulations**
  Update local and regional development regulations to include appropriate requirements for EV charging. Consideration is to be given to whether new buildings should be EV-ready and/or include charging stations, understanding the financial impact and housing affordability impacts of added regulation.
- **ZEV.3 Pursue Grants to Support EV Charging**
  Creating a network of EV charging opportunities is key to alleviating "range anxiety" and encouraging EV uptake. Partnerships with agencies like BC Hydro or Fortis BC will help facilitate increased charging opportunities in public spaces.
- **ZEV.4 Convert Corporate Fleets to Fully Electric**
  Develop a plan and procurement strategy to transition corporate fleets to be fully electric and replace vehicles with e-bikes where possible.
- **ZEV.5 Support Adoption of Zero-Emission Buses**
  Work with BC Transit, School District 71 and private shuttle operators to encourage the adoption of electric buses as part of their fleets.


# Electric Bicycles

**What is it?**

Electric bikes (e-bikes) are bicycles that provide electric assist to the user, either by pedalling to active an electric motor or through a throttle. In BC, e-bikes are regulated at the provincial level through the Motor Vehicle Act (MVA). The regulation sets standards for maximum speeds, age limit, and other requirements.

E-bikes can be used by anyone over the age of 16 and help to attract and retain a diverse population of cyclists, significantly appealing to people who are typically unwilling or unable to cycle over long distances and/or steep topography. E-bikes have significant potential to replace motor vehicle trips, this has been found in research especially for commuting-based trips. E-bikes sales in BC went up 85% in 2019. This aligns with global trends which have seen a large spike in e-bike purchases and usage.

**What can be done?**

- **EB.1 Partner to Implement the Active Transportation Network Plan**
  If viewed as a car replacement, e-bikes are in fact very affordable. However, to encourage people to use e-bikes as a daily means of transport, they need safe and comfortable facilities in which to ride, park, and charge them. As such, the growth in e-bike usage has implications for the design of active transportation infrastructure. Protected, All-Ages and Abilities (AAA) cycling infrastructure is key to encouraging all forms of cycling, including e-bikes.
- **EB.2 Include E-Bike Charging Requirements in Development Regulations**
  Update local and regional development regulations to include appropriate provision of e-bike charging facilities, with consideration of larger bicycle parking spaces to accommodate increasingly larger cargo-style e-bikes.
- **EB.3 Create E-Bike Subsidy Program**
  While e-bike prices continue to decrease as technology improves, e-bikes are much more expensive than most standard bicycles. Incentives from the Provincial government have helped address this affordability gap, but further support could be provided with the Comox Valley. The program could be limited initially to focus on low income residents or others experiencing barriers to e-bike ownership.

# Micromobility

**What is it?**

Micromobility refers to small human and/or electric-powered transportation modes, including e-bikes, electric kick scooters (e-scooters), and other small, one-person electric vehicles such as electric skateboards, skates, and self-balancing boards/unicycles.

E-scooters and other forms of small, one-person electric vehicles (with the exception of e-bikes) are not currently permitted on public roadways or sidewalks in BC, as directed by the Motor Vehicle Act (MVA). However, the Province recently launched an e-scooter pilot project to allow municipalities to enact bylaws allowing the operation of e-scooters in five participating communities (Vancouver, the City and District of North Vancouver, West Vancouver, Kelowna, and Vernon). The pilot project will occur for 3 years and will help inform potentially permanent changes to the MVA to allow e-scooters across the province. Although not legally allowed unless through the Provincial pilot, individuals can still purchase private micromobility devices from retailers online, which is why communities are beginning to see the illegal use of these devices on their roadways and bike lanes. Private micromobility devices are growing in popularity given their ease of use and parking, affordability (compared to a vehicle), a first-mile last-mile solution and general sense of excitement to use.

Power scooters, typically used as a mobility aid, are not considered a micromobility device, although currently have similar capabilities and restrictions established at the Provincial level. Policy developed for the use of micromobility devices have the potential to also provide regulation and educational and enforcement direction for the use of power scooters in the right-of-way.

**What can be done?**

- **MM.1 Develop Education & Enforcement Approach for New Mobility Options**
  Providing education surrounding proper usage and the rules of the road is important for all levels of government, as well as agencies such as ICBC. As new mobility technology is introduced, the region can assist in ensuring coordinated regulations across the Comox Valley to ensure end users can use devices seamlessly across community boundaries. The Region should coordinate with local police and bylaw departments to discuss the safety concerns of these emerging transportation technologies to develop appropriate solutions to managing their use and interactions with other transportation modes.
- **MM.2 Ensure Consistent Design of Active Transportation Facilities**
  All upgraded or new infrastructure design should also consider micromobility devices, which have unique design characteristics. This can be coordinated regionally to ensure a consistent experience for all end users. Design considerations include intersection design, turning radius, speed restrictions, pavement markings, signage and parking.

*Micromobility (both above, Victoria)*

*Shared Micromobility, Station-based (above, Portland)*

*Shared Micromobility, Dockless (above, UBC) Bike Share*

# Shared Micromobility

**What is it?**

Shared micromobility allows for the short-term use of bikes, e-bikes, and e-scooters, where users sign up and typically pay by the minute. These systems are often managed by private operators and are regulated and supported by municipalities. Shared micromobility can be station-based (requiring that the device is picked up and returned to a station or dock) or dockless. Dockless systems allow the user to pick up and return the device in any location within a set geographic area.

In a dockless scenario, it is important for the jurisdiction to clearly set out parking requirements that will keep the right-of-way clear of devices. Operators can push users to park properly through financial incentives. They can also use "geo-fencing" technology to restrict where a trip may end based on the precise location of the device. Geo-fencing technology is communicated via the operator's mobile app. If a user attempts to park or ride the device in a geo-fenced area, the operator can continue to charge the user and/or send push notifications to the user to communicate the infraction. Jurisdictions can also work with the operators to designate parking areas for drop off, typically designating a parking space and incorporating bike racks and educational signage.

Shared micromobility has various service models to meet the diverse needs of travelers and communities. Bike and e-scooter share can make multi-modal transportation more convenient by allowing one-way trips that facilitate 'last mile' connections to transit. These systems are best suited in urban areas, however many communities have set regulation requiring the disbursement of devices in all neighbourhoods to ensure equitable access for all.

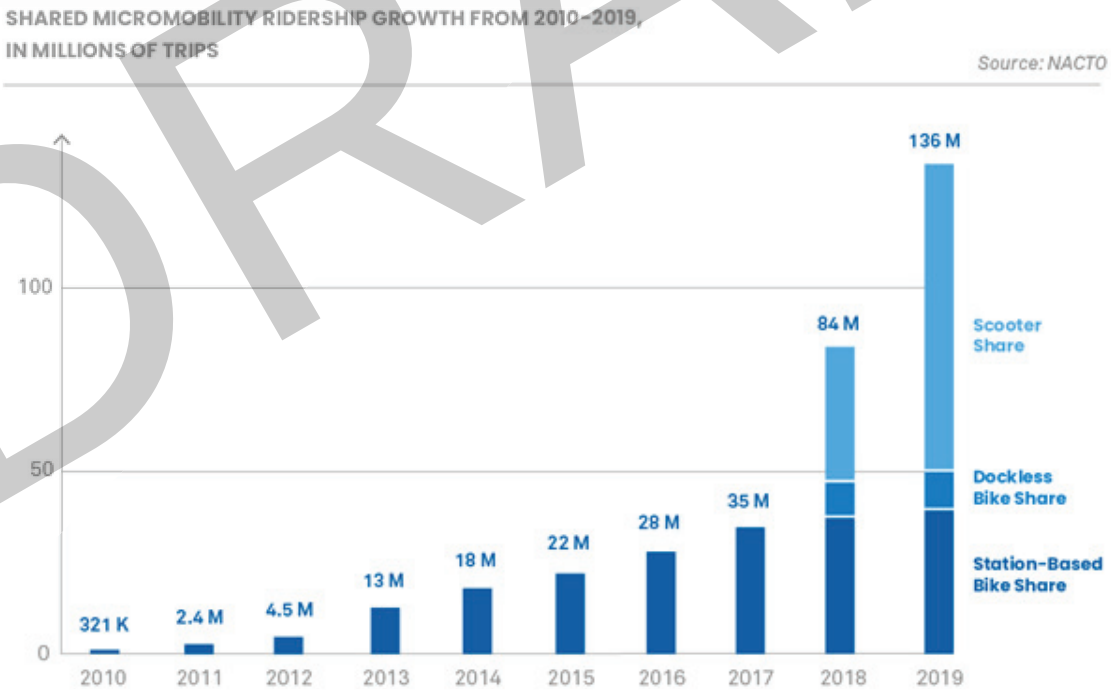
**What can be done?**

- **SB.1 Create a Regional Micromobility Guideline**
  To assist local governments in considering the regulatory needs of a private-provided micromobility business model, the region can provide support by guiding through specific actions to be administered and/or coordinated at the local and regional level to ensure the program is effectively considered and implemented.
- **SB.2 Pursue a Pilot Program to Trial Shared Micromobility**
  Shared micromobility options can be pursued on a pilot / trial basis within town centre areas to understand the level of deamand and utilization, as well as the local authorities ability to administer the service. This may include pro-active collaboration with private operators where appropriate, as well as regional support on project initiation, coordination between local jurisdictions and educational and promotional materials.

## Shared Micromobility Growth

Shared micromobility is rapidly growing in popularity. Communities that have been operating shared micrombility have seen consistent growth in ridership over the past decade followed by a huge spike 2018 with the addition of dock-less bike and e-scooter share systems. There are several Canadian communities that have launched shared micromobility. In June 2020, Calgary became the first Canadian city to hit 1-million total shared micromobility trips. Red Deer, Kelowna, Windsor, and Ottawa are some of the Canadian cities currently piloting scooter share systems, while bikeshare systems exists in several other communities, including an e-bike share pilot recently launched by the District of North Vancouver. Shared micromobility also functions in smaller contained areas such as university campuses (e.g. University of British Columbia).

While not present in the Comox Valley, there is potential that shared micromobility services will be feasible in future and help broaden the range of travel options available to residents, particularly in complimenting more traditional travel modes and providing "last mile" solutions.




*Sources: NACTO (2019) https://nacto.org/shared-micromobility-2019/;*
*Daily Hive (2020) https://dailyhive.com/calgary/calgary-one-million-shared-transportation-trips*

# Carshare

### What is it?

Carsharing is a growing private business model that allows users to access a car for short periods of time by booking a trip online or through a mobile app. Carshare services may be round-trip, one-way, or free-floating. They are typically operated by private companies or coops, with monthly fees and/or hourly rates that cover the cost of gas, insurance, and mileage. The carsharing business model is suitable for those who live a 'car lite' lifestyle – they do not need a car every day and have access to other methods of transportation. Carsharing is often successful in urban areas where people have a suite of convenient mobility options, such as frequent transit and connected active transportation networks. Carshare has become an economical and eco-friendly option; studies show that carshare users reduce their driving, some forego the purchase of a new car, and others forgo car ownership altogether.


Carsharing businesses often start out as grassroots, community-led initiatives. For large car share operators to invest in a new jurisdiction, they need to know there is a strong community demand and an opportunity for success. There are numerous examples of carshare operators in smaller communities that have been formed through community-led initiatives, including Kelowna, the Kootenays and Winnipeg. Car share and local jurisdictions can work together to help provide grants for getting started, supplying dedicated parking stalls, and can be used as an alternative for their corporate fleet.

Once established, carshare stalls can also be provided in private developments in lieu of required off-street parking in new developments, offering carshare memberships and vehicles in place of private parking.

### What can be done?

- **CS.1 Complete Carshare Feasibility Study**
  For carshare to be successful, there needs to be an identified demand from the community to ensure its success. A feasibility study will help to understand the demand for the service, interest from third-party operators, opportunities for local government support of the service, and likelihood of success.
- **CS.2 Pro-Actively Communicate with Carshare Operators**
  The CVRD and local partners may consider outreach to private carshare operators to gauge interest in such a service in the Comox Valley and to better understand the parameters that may be required for an operator to consider a local service.

# Ride Hailing

**What is it?**

Ride-hailing refers to the process of hiring an on-demand, taxi-like driving service using technology like smartphone apps. GPS technology is used to connect drivers with people seeking a ride, and payment is made online. An effective ride-hailing service can enhance personal mobility by providing an additional transportation option, which may support individuals without access to a private vehicle. However, research has shown that the uptake in ride-hailing can increase congestion and vehicle kilometres driven while pulling trips away from sustainable transportation modes such as transit, walking, and cycling.

In BC, ride-hailing is considered a Transportation Network Service (TNS) and is approved to operate through the Passenger Transportation Board (PTB). The Board's primary responsibility is to make decisions on applications relating to the licensing of passenger directed vehicles (e.g., taxis, limousines, shuttle vans, TNS) in BC. The Board also sets the terms and conditions that will apply to the authorization of a TNS.

Applying to operate a TNS is organized by region. The Comox Valley falls within Region 3 along with Cowichan Valley, Nanaimo, Alberni-Clayoquot, Strathcona, Mt. Waddington, and Powell River. As of August 2021, ten TNS providers have been approved by the PTB to operate in Region 3, with one operator providing limited service in the Comox Valley.

**What can be done?**

- **RH.1 Update Inter-Community Business License Bylaw**
  The high-level regulation of is covered through the review conducted by the PTB. Municipalities can issue business licenses and regulate through street and traffic bylaws but cannot prohibit ride-hailing companies from operating in their community. Applying the approach of an inter-community business license (ICBL) would allow businesses to operate across participating municipalities with the purchase of one licence (versus many). This approach was taken in the Lower Mainland, developed by Translink, and was successful in setting a regional approach to the rollout and operation of these devices. The municipalities in the region currently have an ICBL established; however, "Vehicles For Hire" is currently exempt from this. Amending the existing bylaw to include TNS services will allow for a streamlined approach for operators to retain one single business license and would give the opportunity for the municipalities in the region to set an agreement on issues such as revenue collecting and sharing.

### Ride-Hailing vs. Ridesharing

**Ride-hailing** involves drivers who are specifically looking to pick up passengers, like a taxi driver. This can involve "deadheading," where drivers travel to pick up a passenger or cruise the streets while waiting for a ride request, resulting in great distances travelled and GHG emissions. Ride-hailing trips may pick up multiple passengers going to different destinations, but the trip still includes deadheading.

**Ridesharing**, on the other hand, involves a person who is already headed to a destination offering up the empty space in their vehicle to paying customers (similar to carpooling). This person is travelling to their destination regardless of whether they get a customer to join, so no deadheading is involved. Ridesharing apps are often used for trips to popular recreational destinations, such as travel between Vancouver and Whistler.

Regional Priorities

Context Area

# On-Demand Transit

**What is it?**

On-demand transit, also known as microtransit, is a mixture of ride-hailing and transit service consisting of a minibus providing shared rides with highly flexible routing and/or scheduling. This flexibility is advantageous in smaller and rural communities where operating a fixed route transit service can be challenging and ineffective, or where it does not exist at all. On-demand transit can be offered traditionally or digitally. Traditional on-demand transit enables customers to book a trip via telephone approximately one day in advance. Digital on-demand transit uses Mobility-as-a-Service to allow users to request pickups and track availability through an app. This can cause equity issues in areas without strong internet reliability. This type of business model can be publicly or privately provided.

Currently BC Transit operates four transit services in the Comox Valley that utilizes traditional on-demand transit approach that enables customers to book a trip via telephone at least one day in advance. Initial research has shown ridership of approximately 3-4 riders per hour. Resulting in a lower operating cost per trip, but higher cost when compared to a fix route.

BC Transit is currently undertaking research to look at how digital on-demand transit could benefit the communities served, including expanding or supplementing any existing service with an on-demand model to increase accessibility. On-demand transit service has been piloted in other BC communities. In 2019, TransLink operated a two-month pilot on Bowen Island, with 554 people using the system. The on-demand transit pilot added provided 75% more service area than the established fixed-route service, with a total of 17.5 km of additional route service. This additional service area represented one in every three pick-ups and drop-offs. The service was well received overall, with about 80% of users giving top scores on their experience.

**What can be done?**

- **ODT.1 Establish a Digital Platform for On-Demand Transit**
  Supporting BC Transit to provide more flexibility in its route and schedule could allow for transit to access communities and users that need the service.
- **ODT.2 Support On-Demand Transit on Denman & Hornby**
  Collaboration between the CVRD and BC Transit to provide on-demand transit to serve Denman and Hornby Island.
- **ODT.3 Explore On-Demand Transit in Rural Areas**
  Explore opportunities to broaden on-demand transit to provide service to rural areas elsewhere in the Comox Valley.

# Overarching Actions

A framework is required to allow emerging mobility options to be established and thrive as complementary pieces of the overall transportation system. A series of planning, coordination and leadership actions have been identified for the CVRD and local partners to support regional mobility and emerging mobility options. For each, regional cooperation is necessary if existing and emerging travel options are to enhance mobility for Comox Valley residents and we are to achieve our shared regional objectives.

## Develop a Regional Transportation Strategy

The recently completed Comox Valley Active Transportation Plan, as well as the Comox Valley Transportation Road Network Plan (2014) and Comox Valley Transit Future Plan (2014), provide a foundation for regional multi-modal network planning. Further, there are various local transportation plans within the region such as Connecting Courtenay (2019) and the Comox Transportation Master Plan (2020). While these documents provide excellent direction on infrastructure, service provision and programs, the region lacks a strategy that sets an overarching transportation strategy that gives comprehensive consideration to all modes and all jurisdictions across the Comox Valley.

## Establish a Regional Travel Monitoring Program

It has been well described throughout this document that mobility needs and trip making occur across jurisdictional boundaries. To understand regional patterns, a region travel monitoring program is recommended that considers regional trip making patterns, regional mode share and multi-modal volumes along key corridors. A coordinated approach through the region is imperative. The information assembled through this program would allow the CVRD and local jurisdictions to understand regional transportation trends and better inform regional investments in transportation.

## Establish a Regional Mobility Grant Program

As seen in smaller communities across BC and Canada – new mobility services such as shared micromobility, car share and ridehailing providers are established out of a community recognized need. This has resulted in the development of grassroots companies to serve the gaps in mobility service in their community. In the Comox Valley, encouraging the growth of new mobility options and trialling new mobility pilots could be incentivized through a Regional Mobility Grant. These types of businesses can be high-risk and have large start-up costs. Grants to help support the business planning and early investment can provide the incentives for these community-led businesses. The CVRD and regional partners can work with other grant providers through the Federation of Canadian Municipalities and the Province of B.C. to initiate a mobility grant program that encourages the social enterprise of sustainable transportation options for the region.

## Establish a Regional Parks Function

Currently the parks and trails in the region are managed separately by each local government as community parks. As seen in many regional jurisdictions, a regional parks service can be established to oversee responsibility for the operation and maintenance of regional parks and trails that benefit the regional as a whole (residents in electoral areas and local municipalities). Establishing a regional parks service can ensure safe and clean regional facilities, protection of regionally significant natural areas and can play an important role in delivering regional active transportation facilities.

# Moving Forward

Dedication of time, energy, resources and funding will be required to realize the broad regional objectives and support the emerging mobility options detailed in this document.

The preceding sections highlight a number of opportunities for the Comox Valley Regional District and regional partners to show leadership and pursue action toward improving regional mobility. The following page contains a summary of targeted actions identified to enhance regional transportation and support emerging mobility options.

he following is focused specifically on facilitating emerging travel options, but by no means is this an exhaustive list. Continued investment and action toward existing sustainable travel options such as active transportation and public transit if meaningful change is to be achieved.

## Targetted Actions to Enhance Regional Transportation + Emerging Mobility Options

| Action | Complexity | Leadership |
|---|---|---|
| **Zero Emission Vehicles** | | |
| **ZEV.1** Create an EV Subsidy Program (related to EB.3) | | CVRD, Municipalities |
| **ZEV.2** Include EV Charging Requirements in Development Regulations (related to EB.2) | | |
| **ZEV.3** Pursue Grants to Support EV Charging | | |
| **ZEV.4** Convert Corporate Fleets to Fully Electric | | |
| **ZEV.5** Support Adoption of Zero-Emission Buses | | CVRD, Municipalities, BC Transit, SD71 |
| **Electric Bicycles** | | |
| **EB.1** Partner to Implement the Active Transportation Network Plan | | CVRD, Municipalities, MOTI, KFN |
| **EB.2** Include E-Bike Charging Requirements in Development Regulations (related to ZEV.2) | | Municipalities, CVRD |
| **EB.3** Create an E-Bike Subsidy Program (related to ZEV.1) | | CVRD |

**Complexity**

*Capital cost abd evel of effort associated with implementation*


High


Low


Moderate

Indicates actions that can be pursued in rural communities

Indicates Near Term Actions

## Targetted Actions to Enhance Regional Transportation + Emerging Mobility Options (Cont)

| Action | Complexity | Leadership |
|---|---|---|
| **Micromobility** | | |
| **MM.1** Develop Education & Enforcement Approach for New Mobility Options |  | CVRD, MOTI, Municipalities |
| **MM.2** Ensure Consistent Design of Active Transportation Facilities |  | |
| **Shared Micromobility** | | |
| **SB.1** Create a Regional Micromobility Guideline |  | CVRD, Municipalities |
| **SB.2** Pursue a Pilot Program to Trial Shared Micromobility |  | |
| **Carshare** | | |
| **CS.1** Complete Carshare Feasibility Study |  | CVRD |
| **CS.2** Pro-Actively Communicate with Carshare Operators |  | CVRD, Municipalities |
| **Ride-Hailing** | | |
| **RH.1** Update Inter-Community Business License Bylaw |  | Municipalities |
| **On- Demand Transit** | | |
| **ODT.1** Establish a Digital Platform for On-Demand Transit |  | BC Transit, CVRD, Municipalities |
| **ODT.2** Support On-Demand Transit on Denman & Hornby |  | |
| **ODT.3** Explore On-Demand Transit in Rural Areas |  | |

# Closing

The Mobility Primer is a guide to understand our regional transportation priorities, how we move, the influences that shape our decisions, and opportunities to support emerging travel options. It presents information and creates understanding, while beginning to suggest some of the ways regional partners can work collectively to improve transportation.

With this document as a starting point, and building on past regional planning initiatives, much work is still to be done through the Comox Valley to realize our shared objectives. Past approaches to regional transportation have not resulted in the significant change needed to realize our goals and a paradigm shift is required. This includes leadership and commitment among the many organizations in the Comox Valley with direct and indirect influence over transportation infrastructure and services to support a shift toward supporting active, sustainable travel options.

Effort is required to further prioritize existing, sustainable transportation options, as well as to facilitate emerging mobility options to broaden the suite of alternatives to private automobile travel by pursuing actions identified in this document.

DRAFT

Comox Valley
REGIONAL DISTRICT

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