

State of Cycling in Metro Vancouver

 **2024**

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Executive Messages

A Message from the CEO of TransLink

Cycling isn't just a way to move for Metro Vancouverites, it's a way of life. Currently, one in four people bike regularly, and more than 40% people are interested to take up cycling, whether it's to commute to work or for a leisurely ride around the Seawall.

It's our goal to make transit, cycling, walking, and rolling, the most convenient choice for moving through the region so even more people can choose sustainable, active modes of travel. Thanks to \$142 million in cycling and pedestrian infrastructure investments since 2017, we're already on our way to meeting this goal.

Our region's cycling network has expanded to nearly 5,000 kilometres. An impressive feat that means nearly 70 per cent of people in Metro Vancouver now live within 400 meters of bikeways that are fully separated from traffic or on shared roadways with lower speed limits and traffic volumes.

Continued investment is essential to connect the network and ensure equitable access to transportation and transit where everyone can feel welcome, comfortable, and safe while getting around. We will continue to work with local governments, partners, and Indigenous Nations to deliver infrastructure that supports those who walk, bike, ride, and roll.

Evaluating where we're at is critical to understanding what still needs to be done to achieve our goals. This report, prepared in partnership with HUB Cycling, highlights just how much a comfortable and connected cycling network can enhance livability for residents of all ages and abilities.



Kevin Quinn
Chief Executive Officer TransLink

A Message from the HUB Cycling President

The first Metro Vancouver State of Cycling benchmarking report was the result of HUB Cycling's initiative to undertake a collaborative effort with TransLink and Metro Vancouver municipalities to better understand our regional cycle route network. By 2019 a common regional cycling infrastructure classification system was confirmed, route segments were assessed, and fine-grained GIS mapping of every route segment was completed as a result.

Since then, the State of Cycling data has informed ongoing infrastructure funding and design by Metro Vancouver area governments and provided valuable data for academic research and planning-related projects. More accurate and user-friendly regional and municipal cycling maps have been developed based on the State of Cycling classification system and route data. The State of Cycling initiative has set a standard for cycle route network research and planning for all Canadian urban regions.

HUB Cycling is pleased to continue working with TransLink and regional municipalities to complete regular updates for State of Cycling data. It now includes infrastructure projects completed up to the end of 2023, allowing us to understand network improvements and their impacts over time.

HUB Cycling looks forward to the continued positive collaboration with TransLink, and with other public, private, academic and non-profit bodies to keep the State of Cycling initiative moving forward. Together we can keep up the momentum toward creating a complete, connected, safe, and welcoming cycle route network for all residents of our region.



Jeff Leigh, President
HUB Cycling

Recognition of Indigenous Nations and Peoples



We acknowledge with gratitude that the cycling infrastructure and activities discussed in this report are situated on the traditional and unceded territories of the Coast Salish peoples. This includes the lands of the ḡícəy (Katzie First Nation), ḡwɑ:ḡḡən' (Kwantlen First Nation), kwíkʷəḡḡəm (Kwikwetlem First Nation), máthxwi (Matsqui First Nation), xʷməθkʷəyəm (Musqueam), qiqéyt (Qayqayt First Nation), se'mya'me (Semiahmoo First Nation), Skwxwú7mesh Úxwumixw (Squamish Nation), scə wəθən məsteyəxw (Tsawwassen First Nation), and səliiwətaḡ (Tseil-Waututh Nation).



We recognize the profound and enduring relationships these Nations have with their lands, waters, and communities. As we consider how cycling can foster connection and sustainability, we reflect on our responsibilities to engage in meaningful reconciliation and support these Nations in their ongoing stewardship of these territories.

Key Takeaways

This report provides a picture of cycling in Metro Vancouver using data from 2020-2023. It builds upon the first report on Benchmarking the State of Cycling in Metro Vancouver, which was developed by TransLink and HUB Cycling in 2019. Changes to this update reflect the COVID-19 pandemic and the immediate aftermath, which transformed how people lived and travelled. At the time of writing, we do not know the long-term impacts stemming from those changes.

This report covers the development of the cycling network and progress made on building out the Major Bikeway Network and bikeway networks in the 26 Urban Centres within Metro Vancouver. It identifies and discusses trends related to cycling rates, interest in cycling, and gender differences in both. The report also looks at cycling safety rates and perceptions of safety, and it examines the cycling-supportive policies and practices in place in local governments across the region.

Most importantly, the report shows that we have made progress in a range of cycling metrics in recent years, but there is still much to do. We must continue our work to develop a connected cycling network that is *Comfortable for Most* people, and address other factors that support cycling, including identifying and responding to emerging trends.

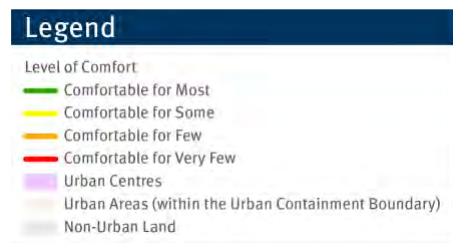
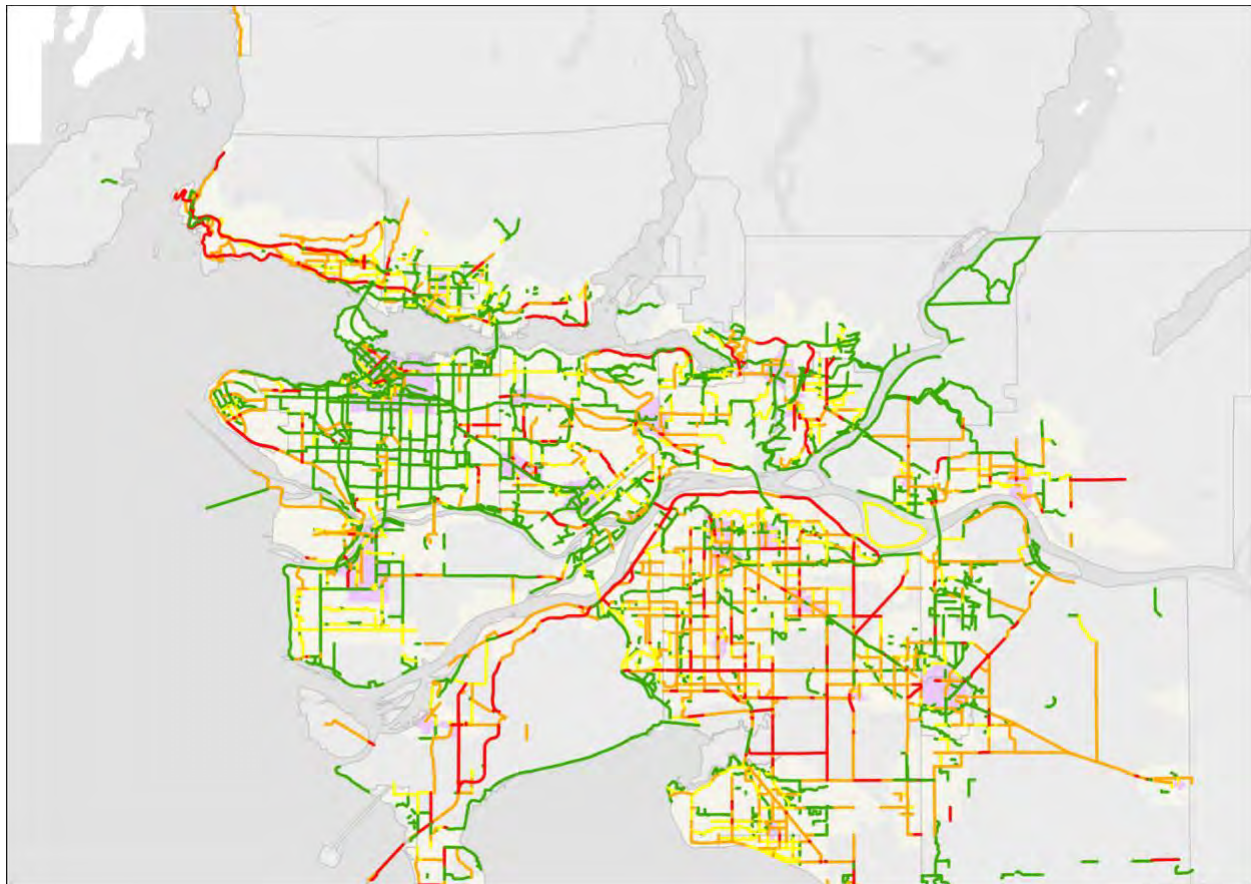
KEY FINDINGS		METRO VANCOUVER REGION	
	Bikeway Network	2023	2019
	Lane kilometres of bikeways	4,870	4,404
	% of network <i>Comfortable for Most</i>	46%	43%
	% of population within 400m of a route <i>Comfortable for Most</i>	69%	65%
	Safety	2018-2022	2013-2017
	Collisions per million bike trips	22.4	25.1

Bikeway Network

Between 2019 and 2023, 466 lane kilometres of bikeway were added throughout Metro Vancouver. Region-wide, 46% of the cycling network is assessed as *Comfortable for Most*, and 69% of residents live within 400 metres of such a bikeway. In the cities of Vancouver, North Vancouver, and New Westminister, over 90% of the population lives within 400 metres of a

Comfortable for Most bikeway. As of 2023, approximately 40% of the Major Bikeway Network has been built to a standard that is *Comfortable for Most* people.

FIGURE 1– METRO VANCOUVER BIKEWAY NETWORK LEVEL OF COMPLETION



We are expanding the cycling network that is *Comfortable for Most* people, as identified by the green lines on the map (Figure 1). However, there remains critical gaps across the region, as shown in red, orange, and yellow, where bike lanes are not fully-traffic separated and share space on roads with high traffic volumes and speed limits.

Investments in building a cycling network with facilities that are comfortable for most people is a cost-effective way to achieve the goals of Access for Everyone, moving more people in the region more affordably, safely, equitably, and sustainably, while helping to address our congested roads and overcrowded transit at a fraction of the cost.

Cycling Rates

Based on data from TransLink's Cycling Perceptions Survey and demographic data, we estimate that between 375,000 and 400,000 adults in Metro Vancouver cycle at least once per week in the summer. The share of people cycling to work across Metro Vancouver was 1.9% of all trips in 2021. The cycling rate is lower in this report than in the 2019 State of Cycling report, likely due to the impacts of the COVID-19 pandemic. We believe this will be a temporary change, reversed through further investment in *Comfortable for Most* bikeways in Urban Centres and on the Major Bikeway Network, along with the growth in use of e-bikes and shared micromobility.

Women and Girls Cycling

Places where more people cycle have greater gender parity in cycling rates, and the percentage of bike trips by women increased 2% from 35% in 2016 to 37% in 2021. While only 34% of women, compared to 51% of men, have cycled in the past year, nearly 70% of women are interested in cycling more.

Safety

Cycling is getting safer in Metro Vancouver. There were 25.1 collisions per million bike trips resulting in serious injury or death from 2013-2017 and 22.4 from 2018-2022. The declining collision rate indicates a positive increase in cycling safety. Collision rates vary across the region, with Burnaby/New Westminster and Vancouver/UBC, having rates that are lower than the regional rate. These areas also have higher percentages of population within 400 metres of a *Comfortable for Most* bikeway.

Supportive Policies and Practices

At local, regional, and provincial government levels, supportive policies and practices encourage cycling and all levels of government in Metro Vancouver are making progress in this area. Most local governments in the region have bike network plans (17 out of 23) and active transportation strategies (16 out of 23). In addition, 19 out of the 20 local governments in Metro Vancouver with schools now offer cycling skills training to at least 40% of students in grades four to seven.

Next Steps

This report provides a valuable update for the public, policy makers, and elected officials for understanding the current development of the bikeway network and other cycling statistics in Metro Vancouver. Future updates are planned to occur every few years. These updates will provide the groundwork for monitoring progress with building out the regional bikeway network and helping support regional goals for more and safer cycling.

Introduction

Our region is working to make active transportation the most convenient choice for shorter trips.

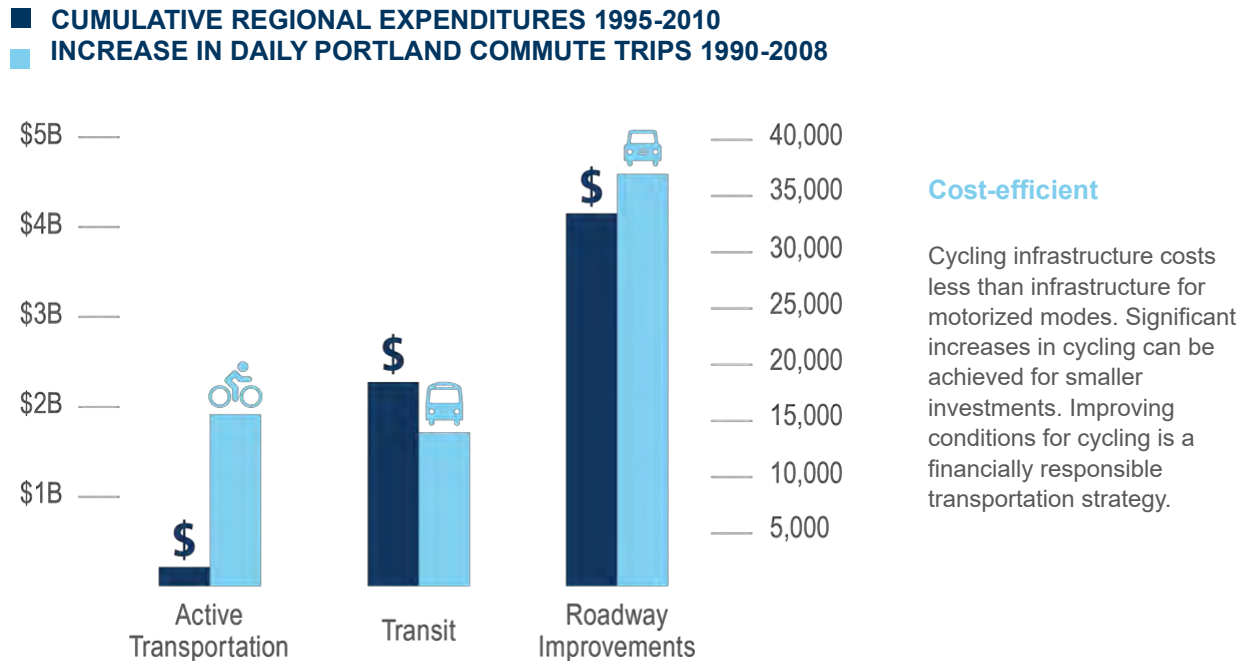


Bicycles offer unique transportation advantages in cities and for shorter trips everywhere. They are faster than walking and have the door-to-door convenience often associated with car travel. Studies have found that bikes are the fastest way to travel in urban areas for trips under four kilometres. Bikes can also be a useful tool in helping people bridge the first and last kilometre to access transit for longer distances.

Investment in cycling infrastructure costs far less than investment in motorized modes and bikes cost less to maintain than motorized vehicles. Bicycles emit no greenhouse gases or other pollutants and are one of the most energy efficient ways to travel. Cycling is an action that many people can do every day to help combat the climate emergency. With these factors combined, it's clear that developing measures to support cycling creates a wide range of positive impacts, and that more cycling has the potential to do much more.

Metro Vancouver has been a North American leader in shifting travel behaviour, and our region already has one of the highest rates of trips made by walking and cycling in Canada. For decades, our region has made choices to support cycling – through the construction of thousands of kilometres of bikeway network and the implementation of a range of supportive active transportation policies and programs.

FIGURE A - REGIONAL EXPENDITURES AND NEW TRIPS IN PORTLAND, OR METRO REGION

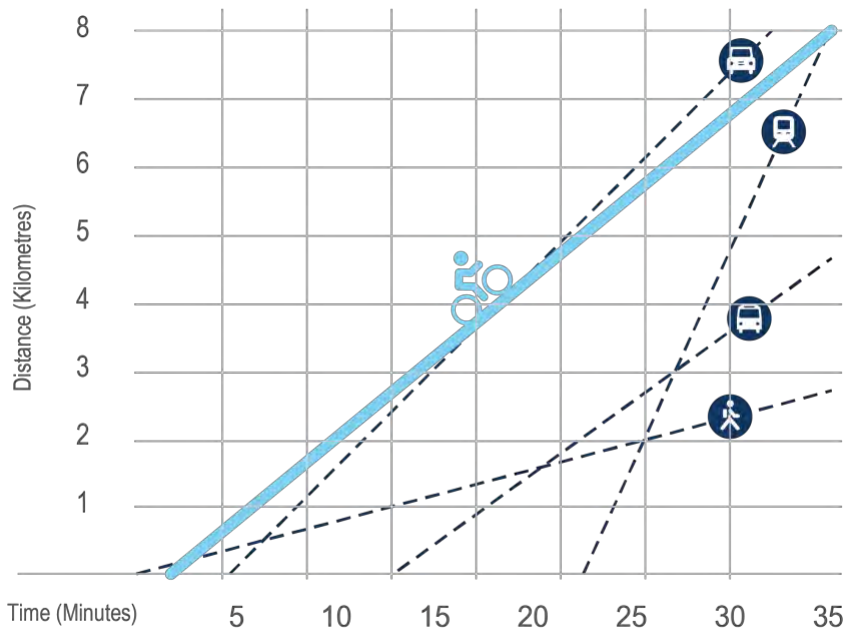


Source: Metro Regional Government (Portland, OR); American Community Survey.

Regional planning documents, such as Transport 2050 (2022), Access for Everyone (2022) and Cycling for Everyone (2011) reflect these choices and ambitions. Provincial plans such as CleanBC (2018), Move, Commute, Connect (2019), and the CleanBC Roadmap to 2030 (2021), further support the role that cycling plays in our communities, and the potential for its role to expand in the future. Local government active transportation plans and cycling network strategies develop on the ground approaches to delivering on these priorities.

Access for Everyone, the region’s 10-year priorities for transportation, aims to make active transportation the most convenient choice for shorter trips that is also safe, comfortable, reliable, and carbon-free. Access for Everyone recognizes that encouraging people to make trips by bike requires safe and comfortable cycling routes that connect people to the destinations they wish to visit, and it commits to building out the Major Bikeway Network and bikeways in Urban Centres by implementing traffic-calmed and protected bikeways that are *Comfortable for Most*. The plan also commits to increasing the availability of bike parking, e-bike charging stations, and investing in measures that will make streets safer for all road users.

FIGURE B - TRAVEL TIMES BY MODE



Time-competitive

The bicycle, travelling at average speeds of 15 kilometres per hour, is well suited for short- and medium-length trips. Cycling is typically the fastest mode for trips less than five kilometres. Since around 50% of all trips made in Metro Vancouver are less than five kilometres, cycling is a time-competitive alternative to the automobile for about half of all trips made in the region.

Source: Dejjster, J & Schollaert U. 1999. Cycling the way ahead for towns and cities. Bruxelles: European Commission. p11

This report builds on the 2019 report on Benchmarking the State of Cycling in Metro Vancouver, with new data from 2020-2023. It documents the ongoing efforts of Metro Vancouver’s local governments in building out the bikeway network, including the extent of designated bikeways built since the last report, and it measures the quality of designated bikeways. New in this report is a look at the quality of the Major Bikeway Network and bikeway networks within Urban Centres. Like the previous report, it analyzes cycling rates, share of cycling trips by women and girls, safety metrics, and looks at policies and practices that support cycling. This report expands on the previous report by introducing data on interest in cycling and its links to perceptions of safety.

Although we have lots to celebrate, we also have lots to do. The 2021 census data in this report shows that less than 2% of commuters in the region cycle to work, with the highest rates of cycling being 8.3% of commuters in Electoral Area A (including the University of British Columbia) and 5.3% in Vancouver. Many people remain ‘interested but concerned’, cycling infrequently or not at all. Safety is often a major concern preventing people from cycling. We already know that one of the most impactful ways to improve cycling safety is to build high quality and connected cycling networks that get people where they want to go. This report monitors progress in these areas and recommends ways to further enhance the benefits of cycling within Metro Vancouver.

What's Included in This Report

The information in this report is organized under the following headlines:

	Bikeway Network measuring the extent and quality of designated bikeways	pg 18
	Cycling Rates measuring the share of commute trips people make by bicycle, and changes over time	pg 26
	Share of trips by Women and Girls measuring the share of trips by women and girls, and changes over time	pg 31
	Safety measuring cycling injury and fatality rates, and changes over time	pg 36
	Supportive Policies and Practices examining local government policies and programs that support cycling	pg 41

These metrics provide a snapshot of existing conditions and their relationship to key outcomes, deliver useful guidance for targeting future investment, and serve as a foundation on which progress can be measured over time.

How to Use This Report

This report provides information about bikeway networks and usage data to partner agencies, elected officials, and the public. The main document provides an overview and key takeaways related to the bikeway network and other relevant data for the region. Appendix A: Sub-area Profiles provide more detail for the 23 local government jurisdictions that are a part of the Metro Vancouver region.

How This Report Was Developed

This report was developed by TransLink with support from HUB Cycling, and engagement with partner agency staff and volunteers, including:

Project Team: Representatives from TransLink and HUB Cycling who collaborated throughout the process, providing guidance and strategic direction for the report.

Partner Agency Team: Local and provincial government staff were engaged through several standing committees managed by TransLink, including the Regional Transportation Advisory Committee (RTAC) and the RTAC Transportation Planning Subcommittee (TPSC).

Engagement occurred through meetings with TPSC who provided and reviewed updated cycling network data and submitted feedback on the update of the Bikeway Classification System, as well as information on their active transportation policies and practices.

Bikeway Classification System

The Bikeway Classification System (BCS) was developed for the 2019 State of Cycling Report in collaboration with HUB Cycling and Metro Vancouver local governments. The BCS remains a useful tool for enabling a consistent approach to describing bikeways across Metro Vancouver and providing information to the public and local governments.

The type of infrastructure or “facility” is often used as the primary way of describing bike facilities. However, this is insufficient without also considering the degree to which a bikeway exposes people to motor vehicle traffic volumes and speeds. To address this, the BCS reviews cycling facility segments and classifies them based not only on bikeway facility type, but also the exposure to motor vehicle traffic, including posted speed limits, volume of motor vehicle traffic, and presence of on-street parking.

Based on the above considerations, bikeway segments were objectively evaluated and placed into one of the following four comfort categories:



Comfortable for Most People

(green segments): These bikeways are either fully protected from motor vehicle traffic or are on shared roadways with low posted speed limits (i.e. 30 kilometres per hour or less) and low motor vehicle traffic volumes (i.e. less than 2,000 vehicles per day).



Comfortable for Some People

(yellow segments): Most of these bikeways are shared roadways where posted speed limits are higher (i.e. up to 50 kilometres per hour) and there is more motor vehicle traffic (i.e. up to 3,000 vehicles per day). Some painted bike lanes and bike accessible shoulders also fall into this category, as well as a small portion of bikeways that are protected from motor vehicle traffic but are narrower in width than is recommended by current design standards.



Comfortable for Few People

(orange segments): The majority of these bikeways are painted bike lanes or bike accessible shoulders on roadways with higher posted speed limits (i.e. 50 kilometres per hour or greater) and more traffic (i.e. more than 4,000 vehicles per day). Some shared roadways with higher posted speed limits and higher volumes of motor vehicle traffic also fall into this category.



Comfortable for Very Few People

(red segments): Many of these bikeways are shared roadways where posted speed limits are higher (i.e. greater than 50 kilometres per hour) and there are higher traffic volumes (i.e. 6,000 or more vehicles per day). Some painted bike lanes and bike accessible shoulders also fall into this category, including those with adjacent curbside parking and higher speed limits (i.e. greater than 50 kilometres per hour).

Glossary of Bikeway Facility Types

Bike Path ●



Uni or bi-directional, segregated off-road facility for the exclusive use of people cycling. May be paved or unpaved.

Protected Bike Lane ●



Exclusive on-road facility delineated by a vertical barrier element providing physical separation from motor vehicles, as well as separation from pedestrians.

Multi-Use Path ● ● ●



Off-road facility that allows for shared use by people cycling and walking. May be paved or unpaved.

Shared Roadway ● ● ● ●



Bikes and motor vehicles share the roadway. May or may not involve diversion and calming of motor vehicle traffic, limiting exposure to motor vehicle traffic.

Bike Lane ● ● ●



On-road bikeway adjacent to a curb or a parking lane and delineated from motor vehicles by a painted line or similar markings.

Bike Accessible Shoulder ● ● ●



Signed and marked, designated on-road paved facility with no curb, located to the right of a general purpose travel lane, and separated by a white edge line or painted buffer. May be shared with pedestrians in rural settings.

2023 Updates to the Bikeway Classification System

Based on concerns about the comfort of some multi-use paths adjacent to busy roadways, a review of the Bikeway Classification System was undertaken by a consultant engineer. As a result, additional design considerations for multi-use paths have been incorporated into the Bikeway Classification System (BCS). See *Appendix C* for the full 2023 BCS and notes for each facility type.

Notes and Limitations

1. **Data Sampling:** With over tens of thousands of bikeway segments, a classification system based on sampling was required. 2023 updates were provided solely by local government staff. For the 2019 classification process, some sampling and assumptions about traffic volumes were used to classify numerous segments.
2. **Lane kilometres:** Counting the network by lane kilometres accounts for facilities that allow travel in multiple directions such as bi-directional facilities. In 2021, to more accurately reflect facility conditions, a revision was made to the way lane kilometres were calculated, resulting in a minor change to the 2019 total.
3. **Intersections:** Street crossings are important to the experience of cycling as these are places where paths of travel for people cycling and people driving intersect and are therefore where most vehicle-bike conflicts occur. Unfortunately, there is a lack of information pertaining to the conditions of intersections in the region. As such, evaluations of intersections were not within the scope of the 2019 or 2023 reports, and the classification system identifies the level of comfort through the bikeway segments between intersections.
4. **AAA Bikeways:** There are 23 local governments within Metro Vancouver, and each has different evaluation criteria for their bikeway networks. Many local governments use the terminology *All Ages and Abilities* or AAA to indicate the highest level of design and comfort for cycling facilities. However, there is no consensus on the definition of AAA facilities. AAA is generally used to refer to facilities with an even greater level of design and comfort than *Comfortable for Most People*, which is used as the top of the cycling network classification in this report. To quantify this distinction, the City of Vancouver reports that approximately 33% of their 333.9 kilometres bikeway network is for *All Ages and Abilities*, while 76% of Vancouver's network is classified as *Comfortable for Most* as of 2023.

Although AAA facilities are in line with best practice cycling designs, the Bicycle Classification System (BCS) offers the ability to analyze and assess all bikeways based on their facility type and transportation environment. The BCS enables the identification of facilities that are insufficient, helping us in understanding where insufficient facilities exist, and helping to identify the changes that could be made to increase the level of safety and comfort while cycling.

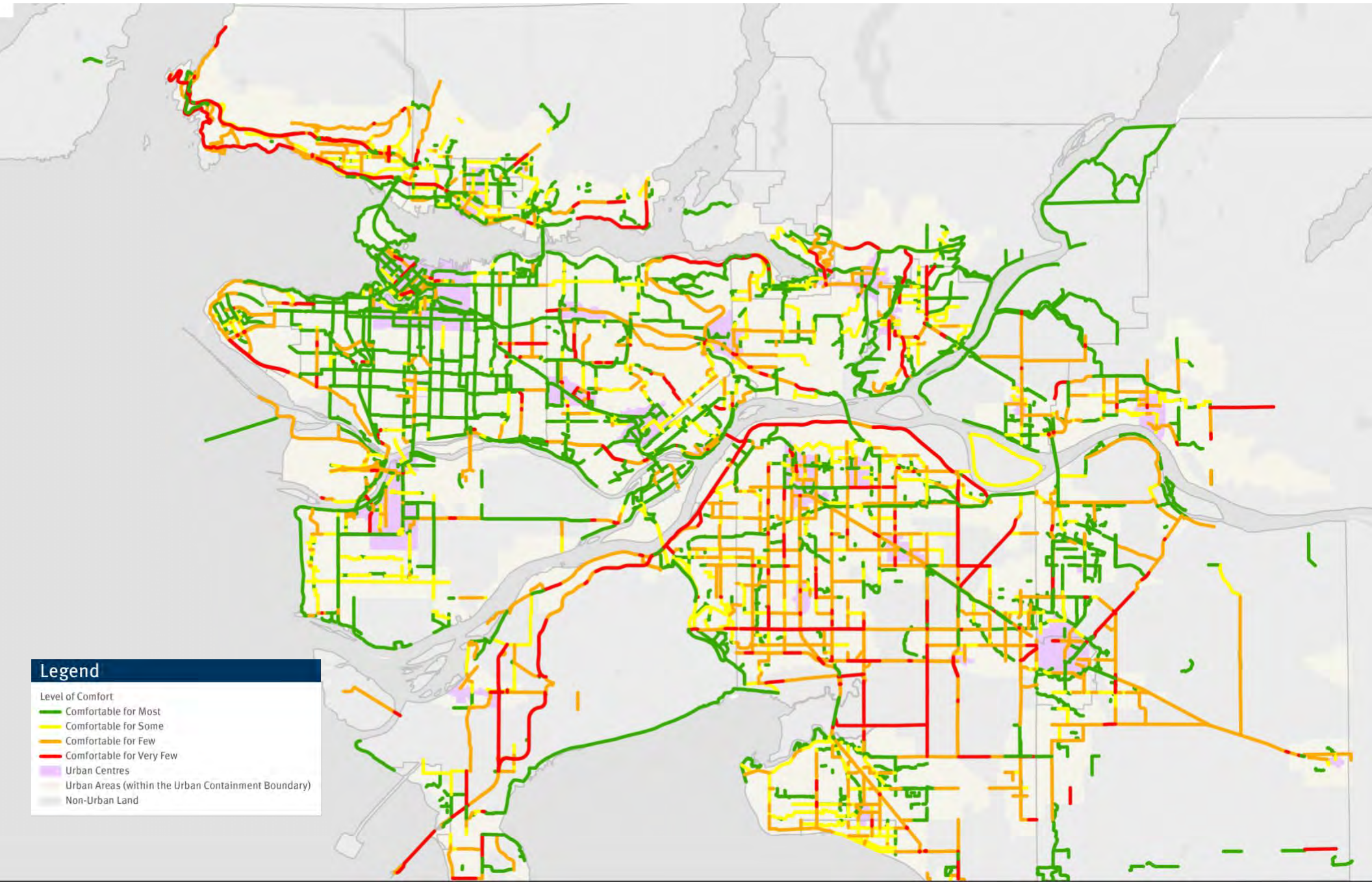


Bikeway Network

From 2019 to 2023, Metro Vancouver's bikeway network increased by 466 lane kilometres, bringing it to nearly 4,900 kilometres. These new sections of the bikeway network bridge gaps and build more complete connections throughout the region.



FIGURE 1- METRO VANCOUVER BIKEWAY NETWORK LEVEL OF COMPLETION

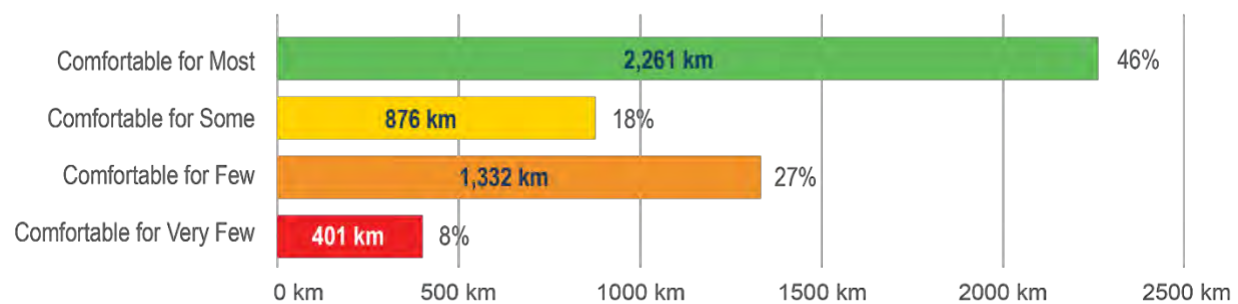


Metro Vancouver’s bikeway network includes both regional and local bikeways. TransLink provides support for local cycling routes through cost sharing with local governments. TransLink has an additional vision through Transport 2050 and the 10-year Access for Everyone Plan to complete the Major Bikeway Network of regionally significant routes that connect communities across Metro Vancouver. These routes are mostly built by local governments, with cost-sharing support and design guidance from TransLink.

Since 2019, investments in both regional and local bikeways have increased the length of the bikeway network by 466 lane kilometres. This builds upon several decades of work. Since 2009, we have seen the combined lane kilometres of regional and local bikeways increase by 288%. These improvements have helped complete some continuous bikeway network connections throughout the region and have made cycling more comfortable for more people.

Bikeway Network by Level of Comfort

FIGURE 2 – LANE KILOMETRES OF METRO VANCOUVER BIKEWAYS BY LEVEL OF COMFORT

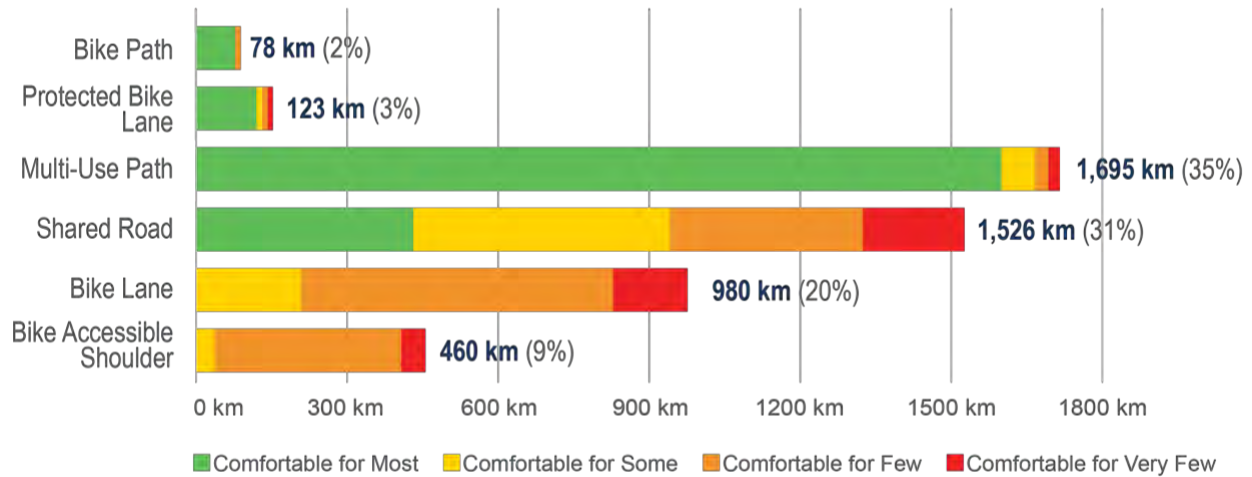


From 2019 to 2023, the percentage of bikeway network considered *Comfortable for Most* increased from 43% to 46%. During this period, 50% of the increases in cycling network kilometres were classified as *Comfortable for Most*, 16% were classified as *Comfortable for Some* and 35% as *Comfortable for Few*. There were no increases in lane kilometres classified as *Comfortable for Very Few*.

Definitions of bikeway facility types and levels of comfort can be found in the Introduction.

Bikeway Network by Facility Type

FIGURE 3 – LANE KILOMETRES OF METRO VANCOUVER BIKEWAYS BY FACILITY TYPE AND LEVEL OF COMFORT



In Metro Vancouver, multi-use paths and shared roads make up more than 65% of total bikeway network kilometres. However, bike paths and protected bike lanes, which make up only 5% of total bikeway network kilometers, often have higher levels of comfort, especially when located on roads with high levels of car traffic.

Painted bike lanes and bike accessible shoulders on shared roads are the least comfortable facilities, and there are virtually none that are classified as *Comfortable for Most*. At just under 30% of the total length of the bikeway network, bike lanes and bike accessible shoulders make up a substantial portion of the bikeways in the region. As a result, improving the level of comfort on these roads through road speed countermeasures and cycling infrastructure improvements can have an impact on the overall level of comfort of the region’s bikeway network. Work is already underway to upgrade existing painted bike lanes to make them more comfortable in parts of the region and we hope to see more improvements to existing facilities in the coming years.

Definitions of bikeway facility types and levels of comfort can be found in the Introduction.

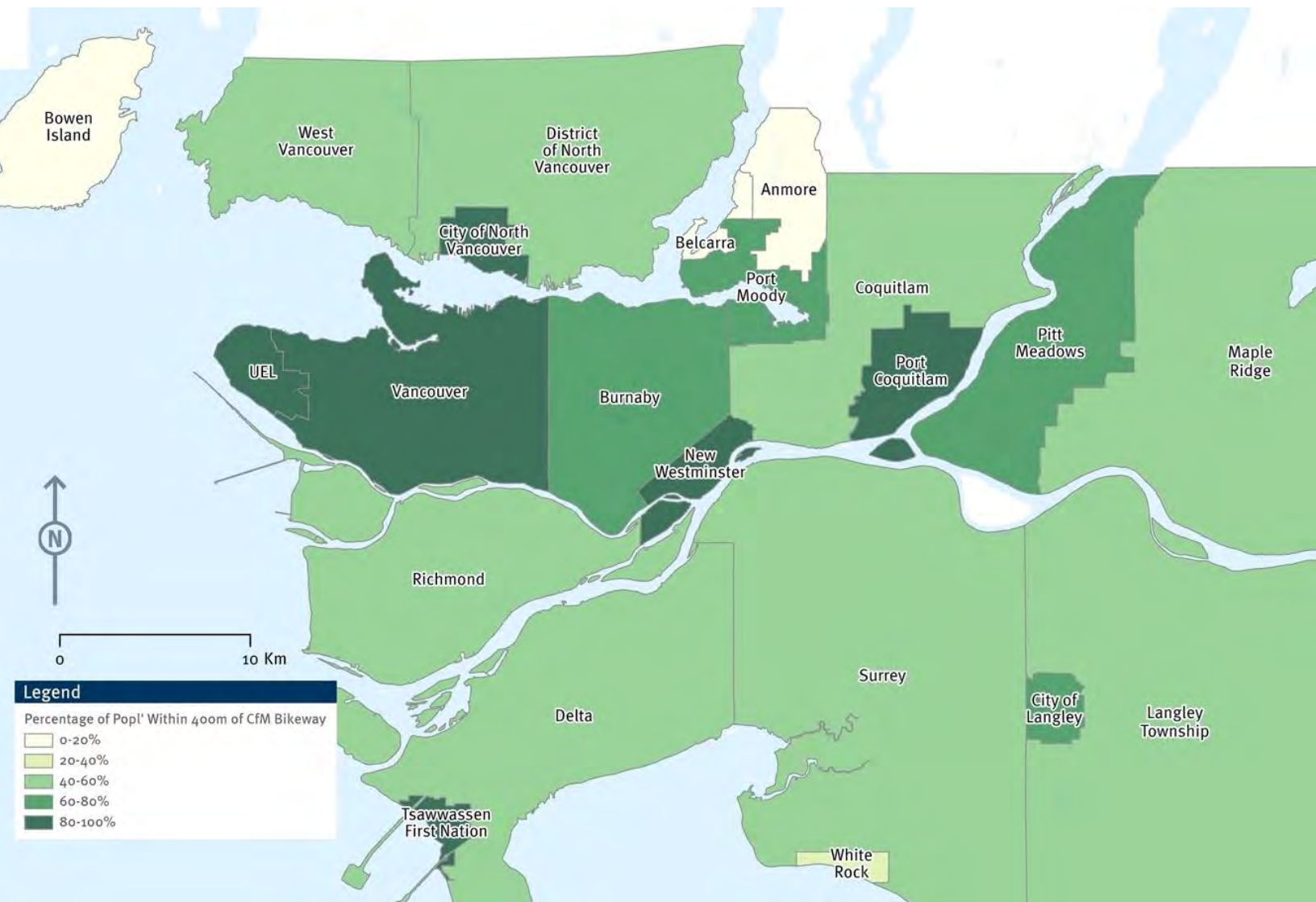


MULTI-USE PATHS: Almost all the multi-use path lane kilometres in Metro Vancouver are *Comfortable for Most* cycling facilities, and multi-use paths are the most common type of cycling facility in Metro Vancouver. However, research shows that such routes may still present injury risk. This is because they mix pedestrians and cyclists who are traveling at different speeds and in different directions, especially in urban environments with higher volumes of people walking and cycling. This results in an increased risk of conflict and injury. There is a wide range of design quality for multi-use paths. Well-designed multi-use paths can be an efficient use of space in some areas and can increase the comfort of walking and cycling. Important design elements to consider when building a better multi-use path include a sufficient buffer between pedestrians, cyclists, and vehicular traffic; good sight lines to anticipate users at crossings and intersections; adequate lighting; paved road surfaces; and intersection treatments. Whenever possible, opting for clear and separate bi-directional cycling and walking paths is preferred, as these facilities have been shown to be safer than multi-use paths.

Population Near a Comfortable for Most Route

From 2019 to 2023 there has been an increase in the percentage of Metro Vancouver population living within 400 metres of a *Comfortable for Most* route from 65% to 69%. The City of North Vancouver has a very high density of *Comfortable for Most* routes, with 96% of the population living within 400 metres of one. In New Westminster, 93% of the population live within 400 metres of a *Comfortable for Most* cycling route, and in Vancouver that figure is 90%.

FIGURE 4 – PERCENTAGE OF METRO VANCOUVER POPULATION WITHIN 400 METRES OF A COMFORTABLE FOR MOST BIKEWAY



Major Bikeway Network and Urban Centres

Transport 2050, Metro Vancouver's current 30-year regional transportation strategy, identifies a vision for a Major Bikeway Network (MBN), comprised of 850 kilometres of corridors that link Urban Centres and communities across the region with bikeways that are safe, convenient, and *Comfortable for Most* people to use. Transport 2050 also identifies the need for complete and connected bikeway networks in all 26 of the region's designated Urban Centres.

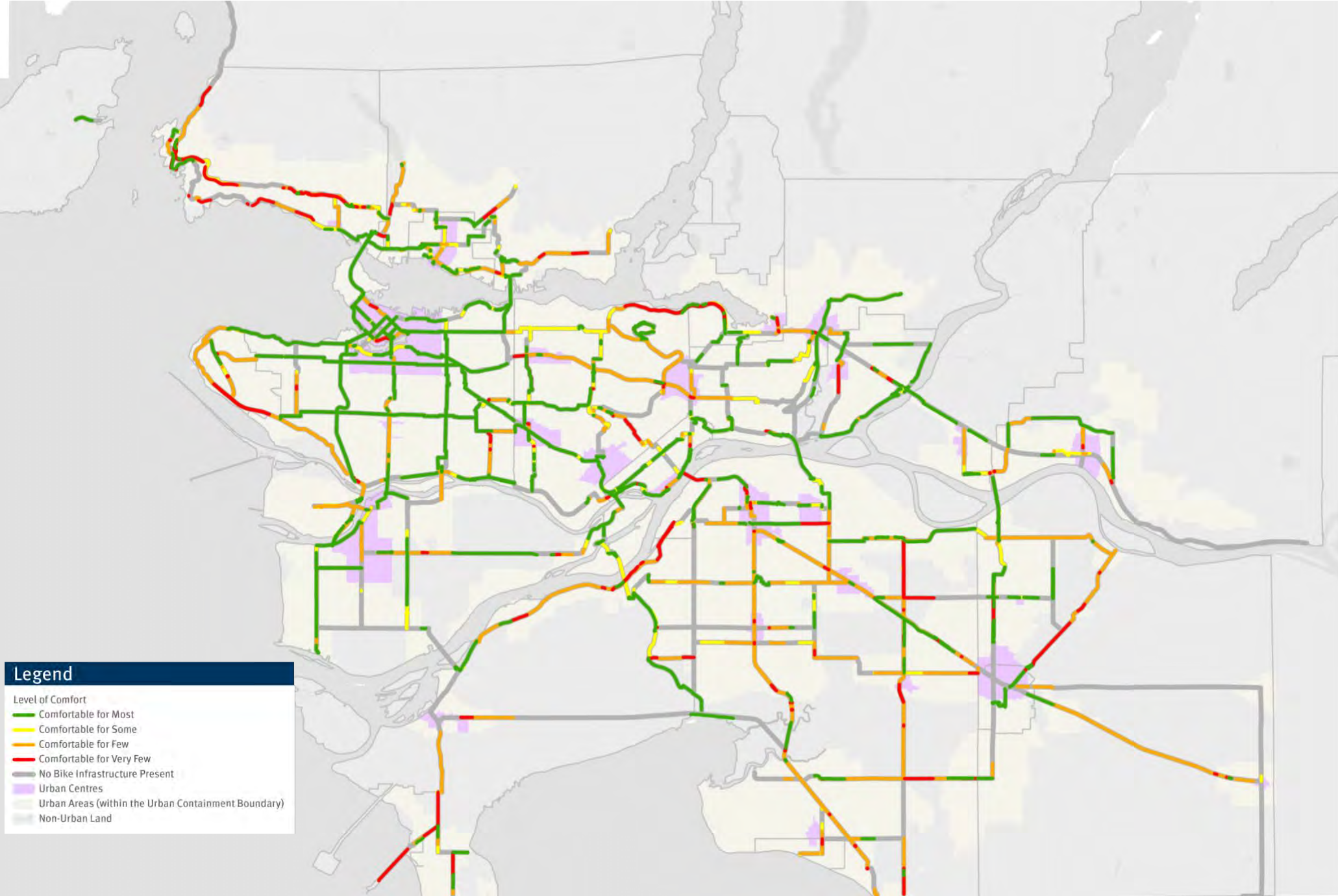
As of 2023, approximately 40% of the MBN has been completed, and relatively few Urban Centres have a good network of bikeways in place. While gaps remain in connecting bikeways that are *Comfortable for Most*, TransLink is committed to working with local governments and other partners to build out the MBN and Urban Centre bikeways.

Expanding the region's bikeway network does not have to be in the form of infrastructure-heavy, protected off-street bike or multi-use paths, even though many report a preference for these forms of more expensive infrastructure. Bikeways that are *Comfortable for Most* include shared roadways with low posted speed limits (i.e. 30 kilometres per hour or less) and low motor vehicle traffic volumes (i.e. less than 2,000 vehicles per day), which are much easier to implement and can feel just as safe for many cyclists.

TransLink encourages local governments throughout the region to include tactics in their bikeway network plans for completing bikeway networks in their Urban Centres, including rapid implementation approaches, and to use the right mix of bikeway facility types to achieve a network that is primarily made up of *Comfortable for Most* facilities.

TransLink will support local governments in this through the Bicycle Infrastructure Capital Cost Share Program (BICCS) and Major Road Network and Bike (MRNB) program, which provides cost-sharing grants to local governments for bicycle infrastructure construction, and by providing bikeway network design and planning guidance such as the Rapid Implementation Design Guide for Bikeways in Metro Vancouver.

FIGURE 5 – PROGRESS ON PROVIDING COMFORTABLE FOR MOST CYCLING FACILITIES ALONG THE MAJOR BIKEWAY NETWORK



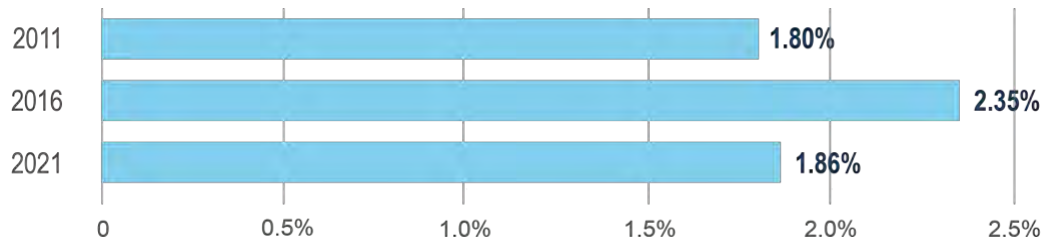


Cycling Rates

We estimate 375,000 to 400,000 adults in Metro Vancouver cycle at least once per week in the summer and 2/3 of people in the region want to cycle more.



FIGURE 6 – % OF COMMUTERS WHO PRIMARILY CYCLE TO WORK IN METRO VANCOUVER

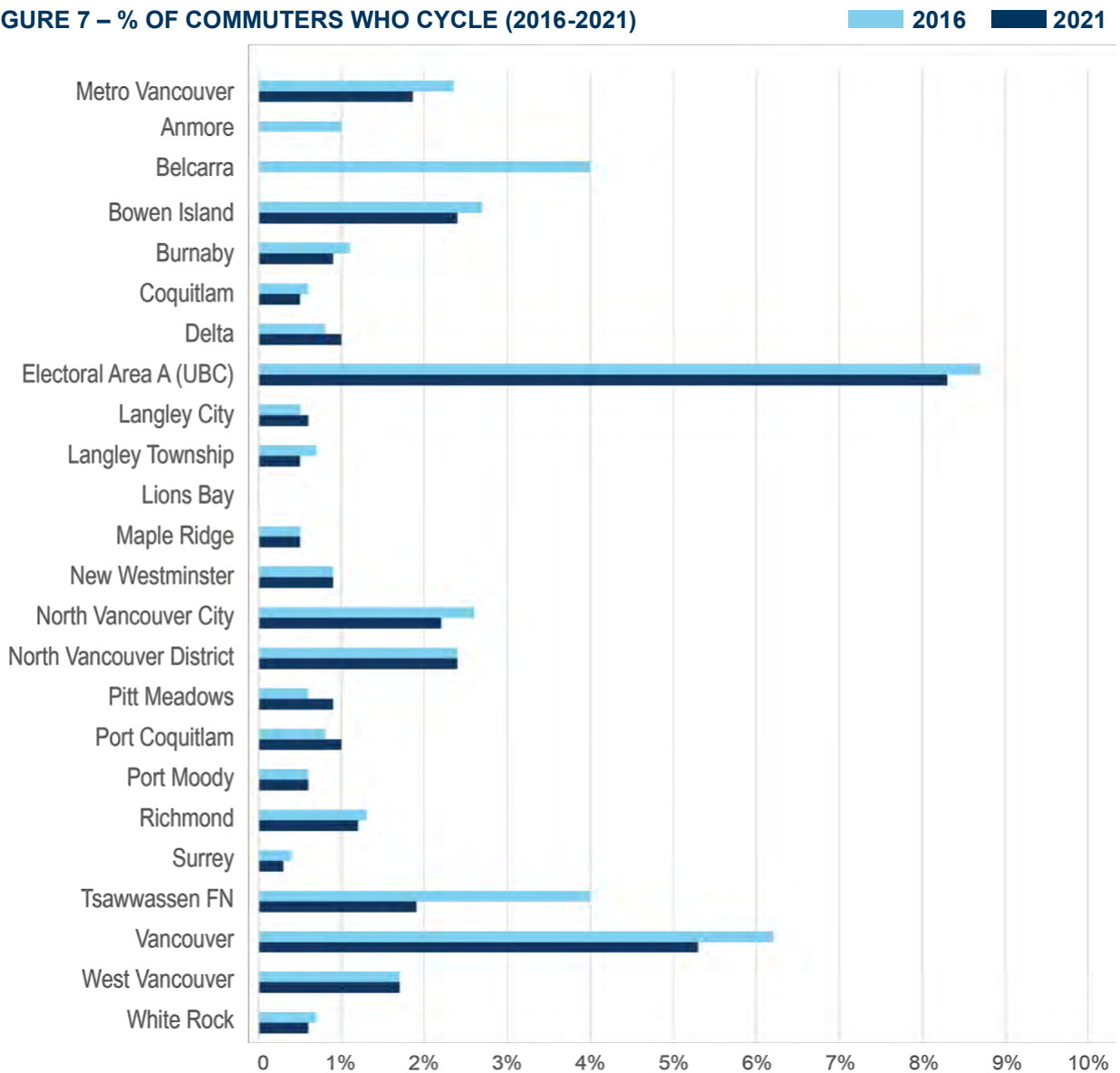


Transportation mode share is measured by the census. We used 2016 census data in the 2019 State of Cycling report, and we have drawn from 2021 census data in this report. What we’ve found is that daily trips to work by bike in Metro Vancouver declined from 27,235 in 2016 to 20,260 in 2021. The region’s cycling commute rate, which had increased by 30% between 2011 and 2016, declined in 2021 to 2011 levels. From 2016 to 2021, the percentage of trips to work made by bike declined in 2/3 of the region’s local governments. However, even with these declines, there were still many bike trips made in this region. Using data from TransLink’s Cycling Perceptions Survey combined with census data, we estimate that between 375,000 and 400,000 adults in Metro Vancouver cycle at least once per week in the summer.

The 2021 census was conducted during the COVID-19 pandemic, at a time before vaccinations were widely available and when many people were working from home or were not working at all. This led to major changes in travel behaviour, both reducing the overall number of trips and altering the modes people used to take those trips. The drop in bike trips in Metro Vancouver in 2021 aligns with data collected around the world and is associated with changes in how people lived during the COVID-19 pandemic.

POST-PANDEMIC TRAVEL Recent data from the City of Vancouver’s Transportation Survey shows cycling has rebounded to pre-pandemic levels, at 8% of daily trips compared to 9% in 2019, even as overall numbers of trips remain lower than before the COVID-19 pandemic. The lowest percentage of trips recorded by the City of Vancouver was in 2021, at which point cycling made up only 4% of daily trips. These findings provide context for the findings in this report. We expect to see a similar rebound in cycling trips happening throughout the region as data becomes available.

FIGURE 7 – % OF COMMUTERS WHO CYCLE (2016-2021)



There are many signs pointing to a positive picture for cycling in the region as we continue to emerge from the changes brought about by the COVID-19 pandemic. Metro Vancouver remains one of the regions with the highest bike mode shares in Canada. Other Canadian survey data suggests that by spring 2022, the number of people cycling to work in British Columbia had increased above the national average for that time, although it remained below 2016 British Columbia bike commuting levels.

FIGURE 8 – METRO VANCOUVER CYCLING FREQUENCY

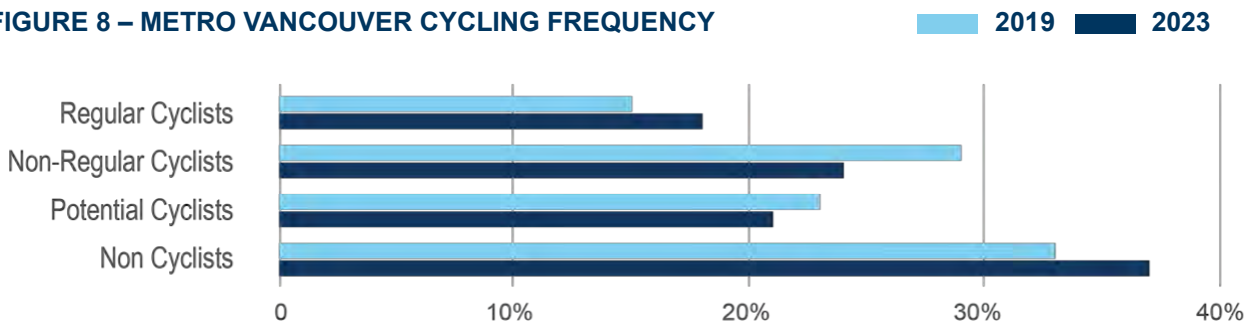
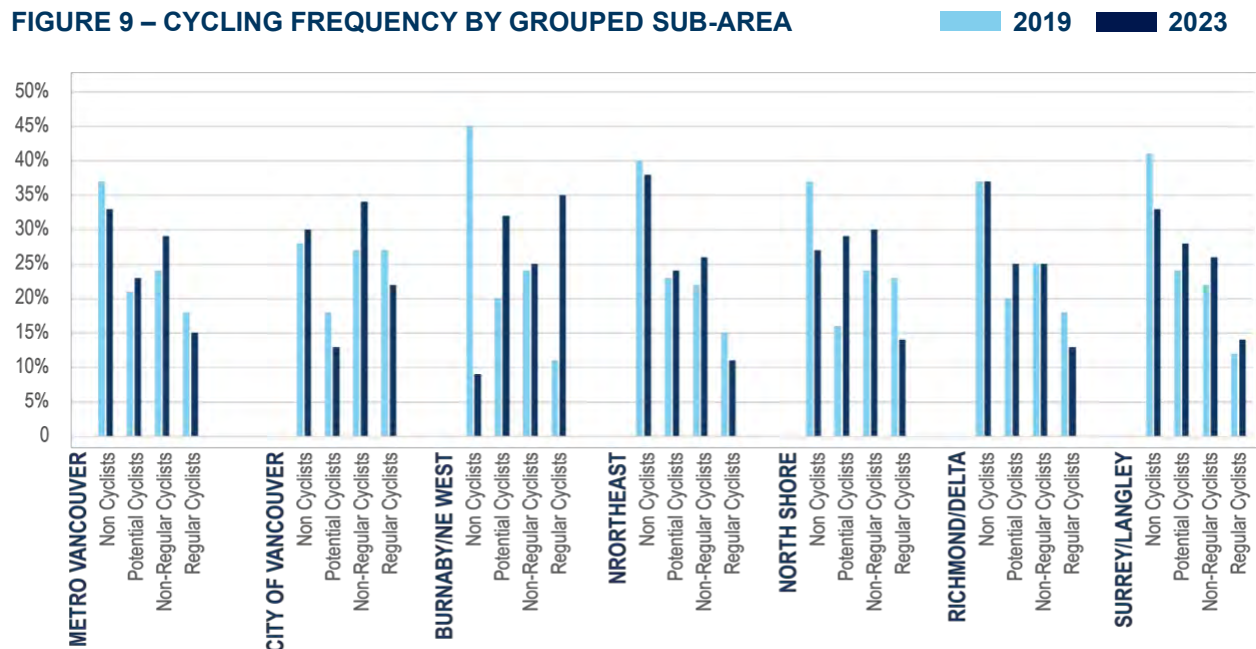


FIGURE 9 – CYCLING FREQUENCY BY GROUPED SUB-AREA



TransLink conducted a Cycling Perceptions survey in 2023 that covered cycling frequency, trip purpose, interest in cycling, perceptions of safety, perceptions of cycling facilities and use of e-bikes. The results offer a more nuanced understanding of travel behaviour in the region. The survey found that 42% of adults in the region have cycled in the past year, and 21% of those who have not, are interested in cycling. In addition, nearly 70% of both women and men who had cycled in the summer months were interested in cycling more.

Only 26% of respondents who had cycled in the past year had done so for commute trips. Data showed that 75% of those who reported cycling in the past year did so for recreation; 34% for entertainment or social events; 31% for personal trips, and 26% for shopping trips. This highlights how just looking at commute trips as a measure of the cycling rate may be missing many trips that people are now making by bike.

We will continue to monitor cycling rates in future State of Cycling reports and may move to a new measure to better respond to changes in how people now travel.

In June 2023, TransLink conducted in-person intercept surveys along three bike routes that utilized TransLink's Rapid Implementation cost-share funding. These projects created *Comfortable for Most* infrastructure using lighter, quicker, and cheaper materials. Of those that used the cycling routes before, over half (54%) increased their usage after the upgrades, reinforcing that high quality infrastructure increases ridership.





Share of Trips by Women and Girls

The rate of cycling trips by women and girls is strongly correlated with higher rates of cycling overall. In Metro Vancouver, women make 37% of commute trips and 69% of women want to cycle more.



FIGURE 10 –SHARE OF CYCLING TRIPS BY WOMEN (2016-2021)

2016 2021

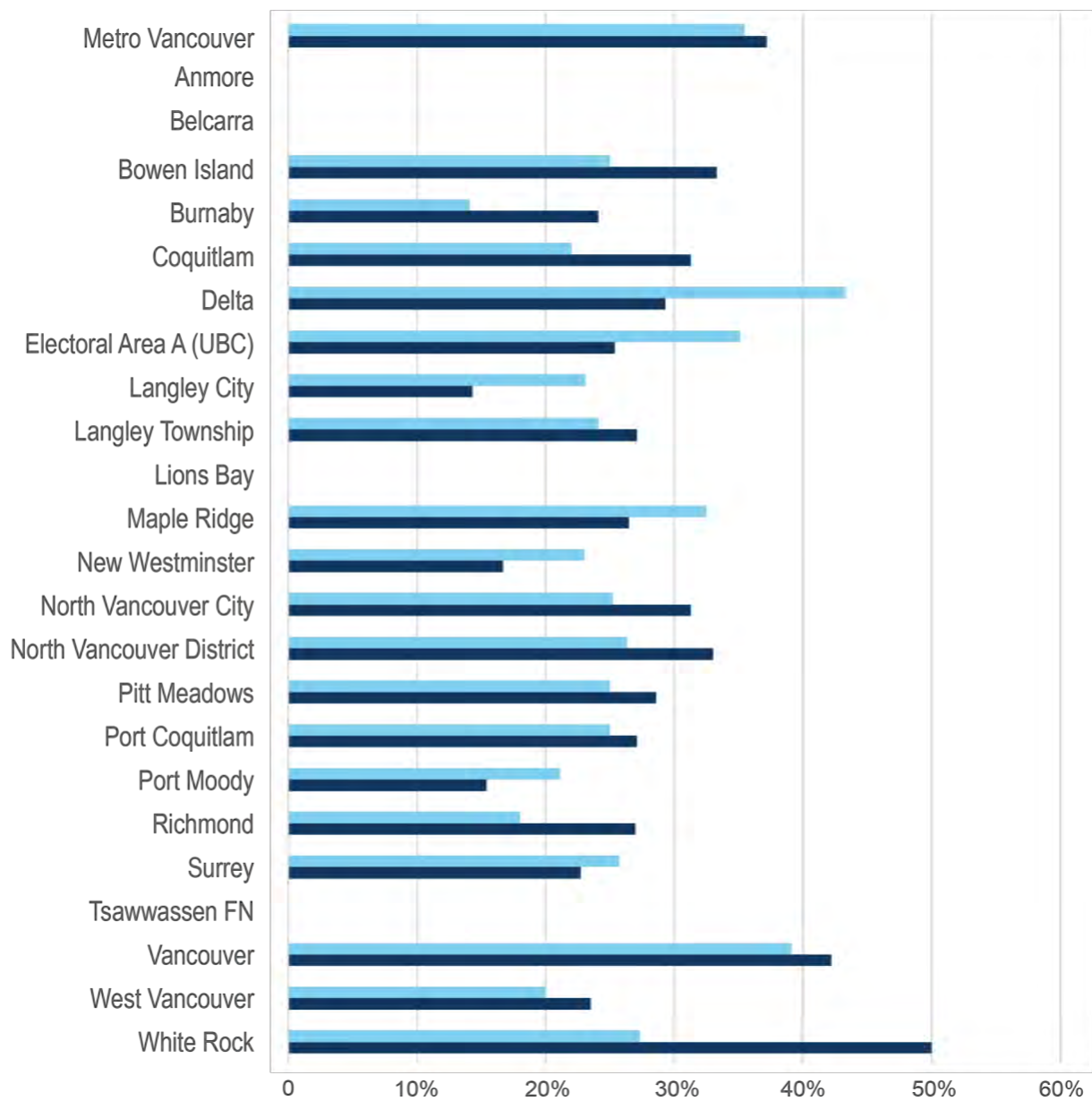
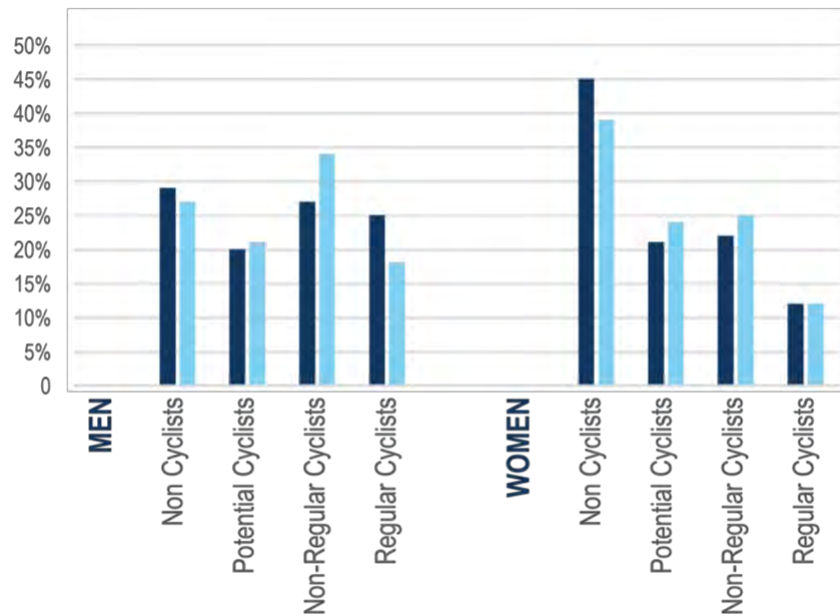


FIGURE 11 – CYCLING FREQUENCY BY GENDER ■ 2023 ■ 2019

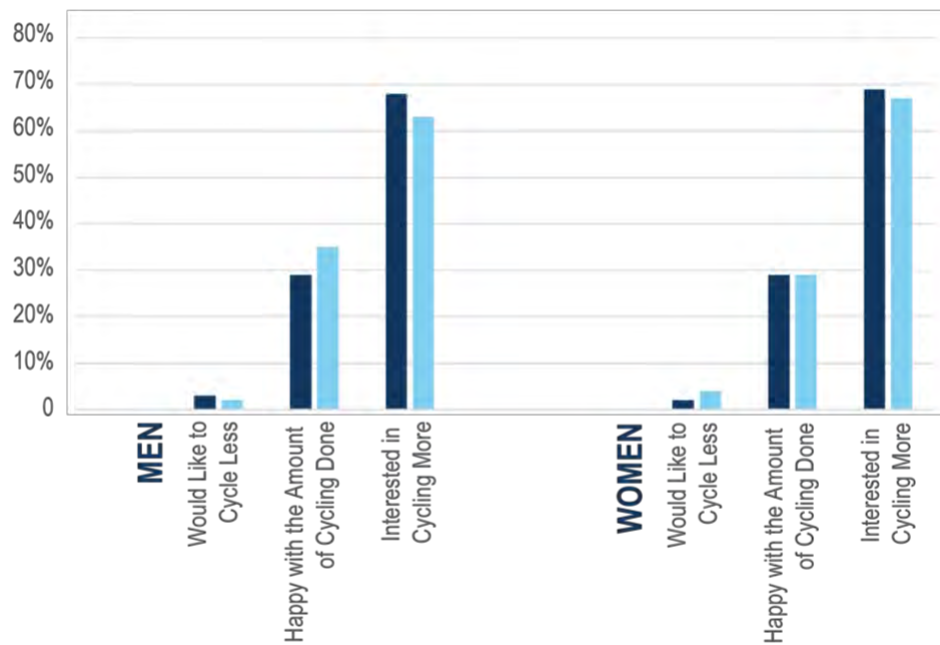


It has been observed since the 1970s that men cycle more than women in most of the world. The exceptions to this are places with more connected cycling networks, resulting in higher cycling mode shares and higher rates of safety for cyclists, such as the Netherlands and Japan. In both countries, women make a greater percentage of trips by bike than men. On a more local basis, in Metro Vancouver census tracts with higher cycling rates, women and men tend to make a more equal proportion of trips by bike.

Participation in cycling by women and girls is an indicator of a more supportive environment for cycling. Within Metro Vancouver, we can see a slight shift in the cycling environment, as the regional cycling rate for men declined by 0.7% whereas for women it only declined by 0.2% between the 2016 and 2021 census. The share of bike trips made by women and girls increased from 35% in 2016 to 37% in 2021. However, women still made only 1.5% of all trips by bike, whereas men made 2.1%. While fewer women (34%) cycled in the last year than men (51%), nearly identical rates of women and men (21% and 20%) who had not cycled over the past year expressed interest in exploring cycling in the future.

FIGURE 12 – INTEREST IN CYCLING BY GENDER

2023 2019



The data suggests there is untapped potential for cycling to become a more frequently used mode of travel. This requires addressing the barriers to cycling, and particularly the barriers to women and girls cycling. Many studies have found that perceived danger on cycling routes is a major deterrent to cycling, and that this deters women from cycling more than men. Looking at the places where there is gender parity in cycling, that means investing in bikeways that improve actual and perceived safety as well as encouraging greater numbers of cyclists through supportive policies and practices.

DATA NOTE: The 2021 census was the first to survey people based on gender identity as opposed to sex. Sex refers to biological aspects of individuals, whereas gender refers to socially constructed roles. Gender is not a binary term, and there are a wide range of genders, which are now being recorded in the census. For the data on bike commuting to work, no one identified as anything other than man or woman. In response to these changes and what we saw in the data, we have shifted from talking about ‘females’ cycling to talking about women. We have also included girls in the section headline because the census travel to work data is collected for people aged 15 and above who have a usual place of work located in Canada. We will include multiple genders in our discussion when that information becomes available in future census data.



CYCLING AND EQUITY

Transport 2050 and the Access for Everyone Plan prioritize advancing reconciliation and increasing social equity for everyone. They call for investments to reduce barriers experienced by disadvantaged groups and for building a more just, equitable and inclusive transportation system. Building this into our region’s transportation system is an ongoing process.

The 2019 State of Cycling report did not consider equity in cycling beyond binary male/female gender. In the years since, planning and policy making have become much more active in foregrounding the experiences of equity-deserving groups, at the same time as many inequities have been exacerbated by the COVID-19 pandemic.

The previous section discussed the ways that those who identify as women are underrepresented in cycling in Metro Vancouver. Other disadvantaged groups are also less likely to cycle than comparatively advantaged groups. In Metro Vancouver, bike commuters are more likely to be in higher income brackets and have higher levels of education. People who identify as white are more likely to cycle to work than people who identify as racial and ethnic minorities. People with disabilities are also less likely to cycle than people without. With e-bikes and other changes in cycling technology, there are more options for people with disabilities to cycle than ever before, but this area is not well understood. We intend to include more data on equity in the next State of Cycling report and will look for additional data sources to enable a more detailed picture of the people cycling in Metro Vancouver.

Cycling education can help improve under-representation in cycling and promote equity. In addition, many socially and economically disadvantaged areas in Metro Vancouver have lower proportions of population living near *Comfortable for Most Facilities* compared to more advantaged areas. Building out the cycling network to fill those gaps has an important role to play in advancing transportation equity in the region.



Safety

Safety and perceived safety are crucially important to whether people choose to cycle. Even though cycling safety has increased in Metro Vancouver, data on perceptions of cycling safety show that people have safety concerns when it comes to cycling.

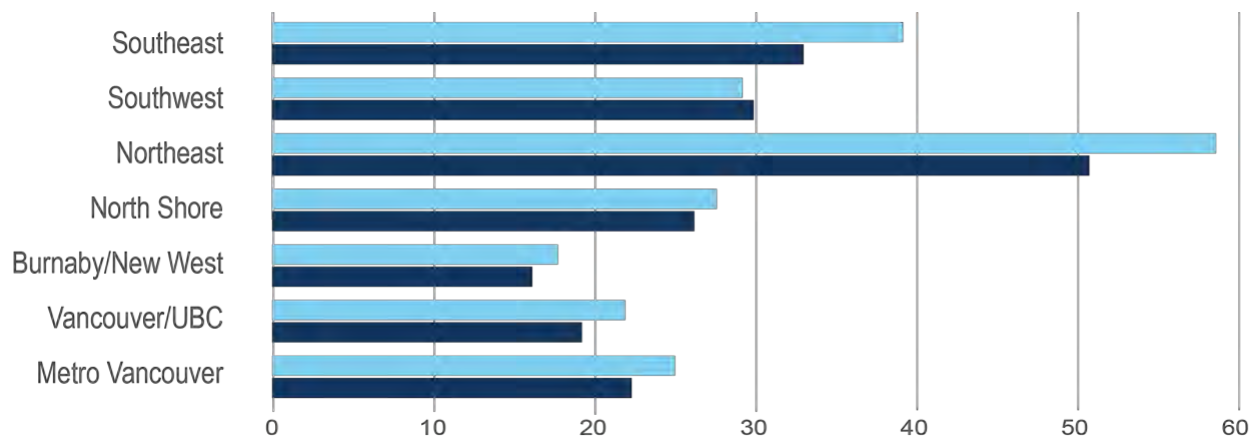


ICBC data from 2018 to 2022 shows that there was an average of three cyclist deaths per year in Metro Vancouver resulting from collisions with motor vehicles. This means that there is not enough data to calculate safety rates by looking at cyclist fatalities from motor vehicle collisions alone. ICBC data that includes injuries and fatalities resulting from collisions between cyclists and motor vehicles provides a clearer picture of cycling safety. Between 2019 and 2023, ICBC has reported a combined average of 1,120 cyclist injuries and fatalities.

Cycling safety rates provided in this report are approximate because there is a lack of cyclist counter data within the region and therefore, we cannot estimate the exact number of cycling trips. However, TransLink Trip Diary data offers a good estimate based on self-reported trips within the region, and this data can be analyzed in conjunction with ICBC data. Trip Diary data was not collected during the COVID-19 pandemic. For this report, 2017 Trip Diary data was used in conjunction with collision data from 2013-2017 and 2018-2022.

FIGURE 13 – NUMBER OF CYCLIST COLLISIONS INVOLVING INJURY OR DEATH

■ 2013-2017 ■ 2018-2022 PER MILLION ANNUAL CYCLING TRIPS



The data shows that collisions per million bike trips fell from 25.1 to 22.4 in the region overall, and safety rates improved in every sub-region except the Southwest, where it declined only slightly. Despite the declining collision rates, perceptions of cycling safety have not kept pace. In 2019, 50% of respondents to TransLink’s Cycling Perceptions survey reported cycling as very or somewhat safe, and 32% found it very or somewhat unsafe. By 2023, only 44% found cycling very or somewhat safe and 37% found it very or somewhat unsafe. Much of this was driven by large changes in women’s perceptions of safety, whereas men’s perceptions stayed steady. With the exception of the North Shore, there were declines in every sub-region in feelings of safety and increases in feelings that cycling is not safe. Interestingly, the North Shore added 22 kilometres of *Comfortable for Most* bikeway network between 2019 and 2023.

FIGURE 14 – PERCEPTION OF METRO VANCOUVER CYCLING SAFETY

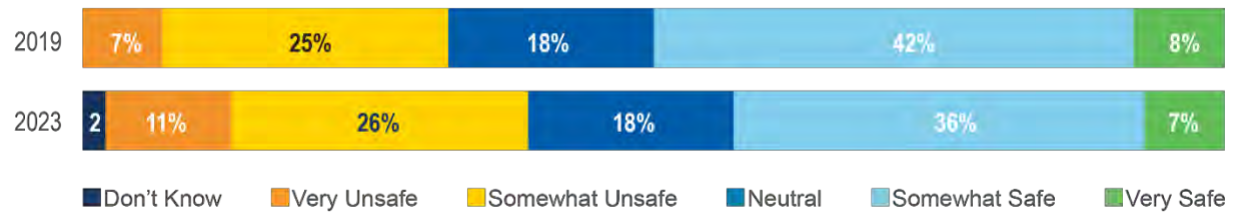


FIGURE 15A – PERCEPTION OF METRO VANCOUVER CYCLING SAFETY FOR WOMEN

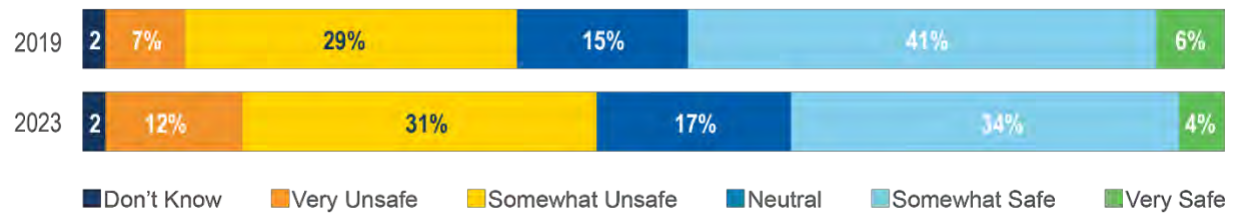


FIGURE 15B – PERCEPTION OF METRO VANCOUVER CYCLING SAFETY FOR MEN

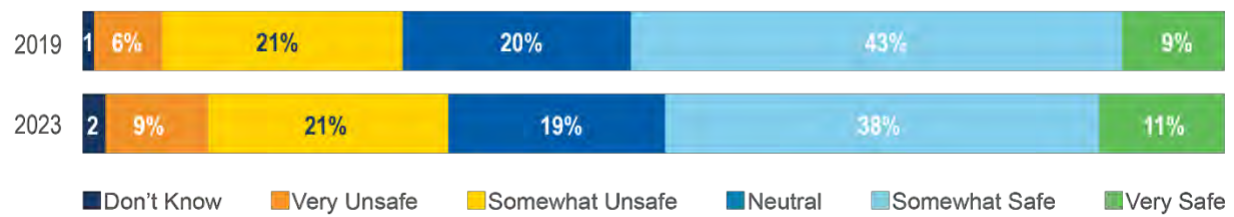
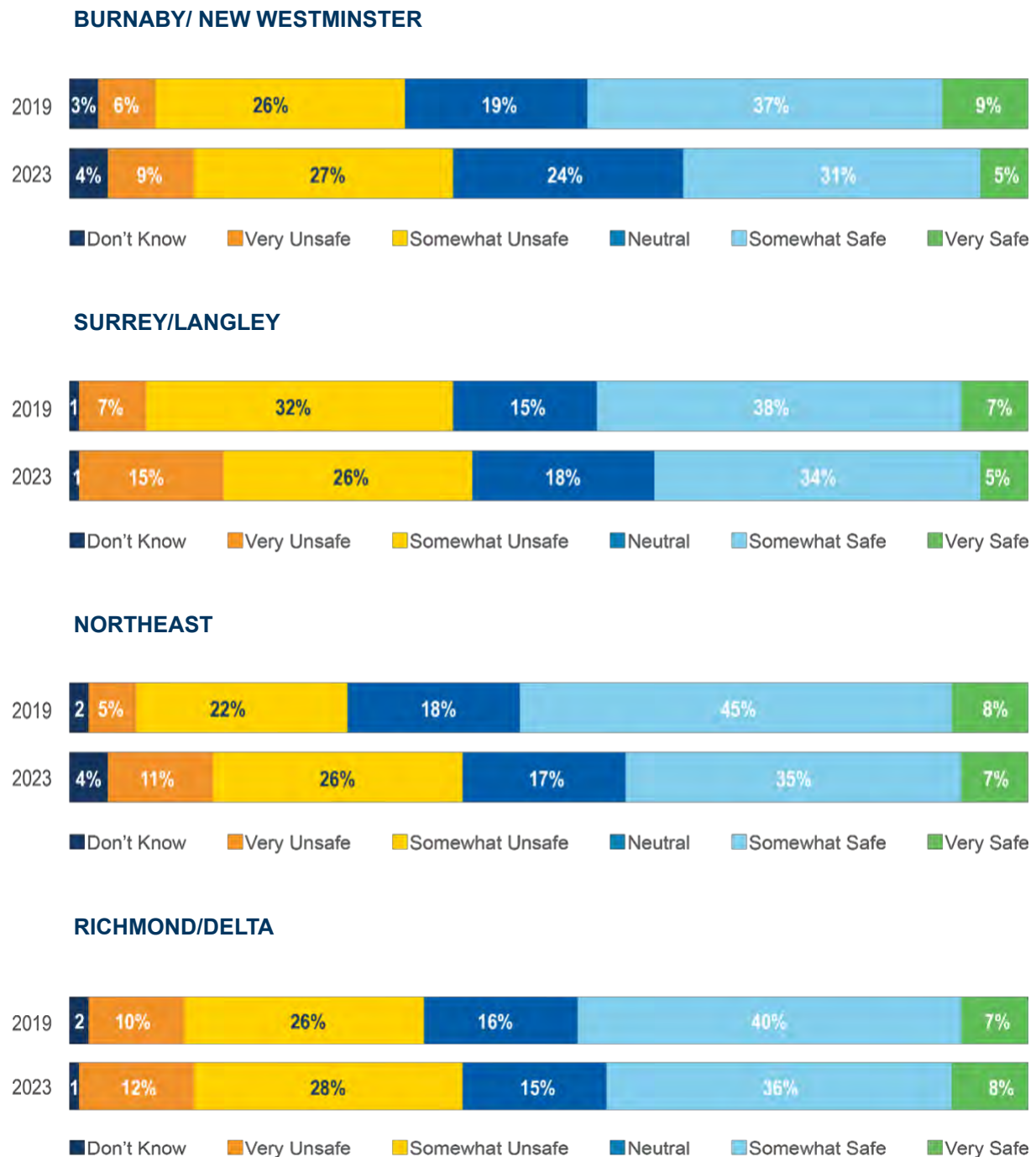
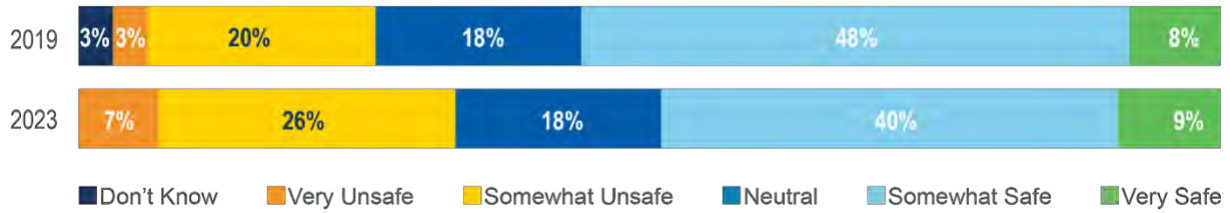


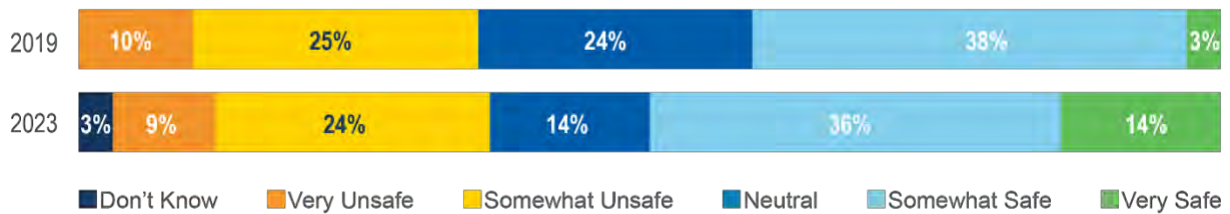
FIGURE 16 – PERCEPTION OF METRO VANCOUVER CYCLING SAFETY BY SUB-AREA



CITY OF VANCOUVER



NORTH SHORE



As with the data on the overall cycling rate, the data on perceptions of safety may be impacted by the COVID-19 pandemic and associated changes in how people lived and worked. Large increases in recreational cycling at the start of the pandemic levelled off by the time this data was collected in 2023. This was also a time when media stories about public spaces being unsafe were prominent and statistics about increases in crime were circulating widely.

Although it has long been recognized that women are more sensitive to cycling safety issues than men, there has not been substantial work to understand the underlying reasons behind these differences. A recent study of cyclists in Toronto found no difference in gender in the fear of collision or injury, but that women were significantly more concerned than men with verbal harassment and interactions with drivers. Women in this study reported higher concerns with how drivers interact with cyclists, such as verbal abuse, suggesting that the perception of safety is also influenced by social norms and the lived experience of gender. It is possible the perception that cycling is unsafe is influenced by fear of other people on the streets more than by fear of motor vehicles.

Locating cycling facilities in well-lit built-up areas with lots of people around, and good visibility may help address these concerns. Gendered differences aside, perceived bike route safety and actual safety often match, and both are important to collect for ensuring a comfortable cycling journey.



Supportive Policies and Practices

Promoting cycling and increasing cycling rates requires action in many areas. Building *Comfortable for Most* bikeways is the foundation of this work, but creating conditions that foster a positive cycling environment also requires investment in supportive policies and practices.



We surveyed local governments throughout the region to understand what policies, plans and programs they have in place and what local actions they are taking to support cycling. We also looked at actions that support cycling happening at the regional and provincial levels.

FIGURE 17: SUPPORTIVE POLICIES AND PRACTICES THROUGHOUT THE REGION



Cycling Education

Since 2019, significant progress has been made in cycling education. From 2016 to 2019, only five of the 23 local governments offered cycling skills training that reached over 40% over students in grades four to seven. From 2022-2023, that number has grown to 19 local governments throughout the region, meaning that cycling education was available in almost every local government with an elementary school.

In Vancouver, Electoral Area A, New Westminster, Richmond, Pitt Meadows, City of North Vancouver and Bowen Island, over 80% of grade four to seven students received cycling education. Overall, 65% of students in Metro Vancouver in this age range completed cycling education in 2022-2023.

Research shows that children in grades four to seven are at a key age to change travel behaviour. Cycling skills training at this age allows independent travel by kids when they are kids, reducing reliance on cars and giving them opportunities for age-appropriate autonomy. Youth who are comfortable cycling by age 13 are more likely to continue into adulthood.

TransLink and local governments have been ongoing sponsors of local active transportation organizations that deliver cycling education, such as HUB Cycling, Better Environmentally Sound Transportation (BEST), and Pedal Energy Development Alternatives (PEDAL). The Province of BC has also expanded funding towards cycling education in recent years, enabling rapid growth of education programs throughout the region. From 2019 to 2023, TransLink invested an average of \$60,000 annually, and local governments together invested an average of over \$300,000 annually.

Cycling education programs in the region include:

- Cycling education for children and youth through schools
- Bicycle maintenance education
- Bike Bus /Walking School Bus Program
- Newcomer Bike Host programs
- Streetwise courses (cycling skills and safety training for adults)

In 2022, TransLink released the TravelSmart4Kids Strategy, a first-of-its-kind children's transportation strategy to promote more active and sustainable trips by children and establish long term behaviour change in Metro Vancouver. The Strategy supports the delivery of children's cycling programs around the region.

Active Transportation Policies



Other areas of progress include adopting Complete Streets and Vision Zero policies. Complete Streets policies support making streets safer for everyone, and especially people walking and cycling, who have historically been overlooked in North American roadway development. In 2019, only two local governments in the region had Complete Streets policies. That number has grown to nine in 2023. Vision Zero is similarly a strategy that aims to reduce traffic-related fatalities and serious injuries by reversing car-centric urban planning policies and practices while focusing on redesigning road infrastructure to protect vulnerable road users. The number of local governments with Vision Zero policies in place has increased from three in 2019 to eight in 2023.

Two areas where there has not been much growth, but which local governments in the region had already developed, are Bicycle Network Plans and Active Transportation Strategies. In addition to developing these plans and strategies, local governments continue to refine their existing documents. City of Vancouver, City of North Vancouver, City of Pitt Meadows, City of Delta, City of Richmond, and City of White Rock have all either added new or updated existing Active Transportation Strategies since 2019. We hope to see growth in all these areas in coming years – both in terms of supportive policies and practices being adopted in local governments that did not have them previously and improvements where they already exist.

FIGURE 18: SUPPORTIVE POLICIES AND PRACTICES BY LOCAL GOVERNMENT

	Cycling Network Plan	Active Transportation Strategy	Complete Streets Policy	Vision Zero Policy	Traffic Calming Program or Policy	Construction Zone Traffic Management Program	40% or More of Students Received Cycling Education in Grades 4-7	Shared Micromobility Program*
Metro Vancouver Region								
Vancouver/UBC								
Electoral Area A (UBC)	✓				✓	✓	✓	✓
Vancouver	✓	✓	✓	✓	✓	✓	✓	✓
Burnaby/New Westminster								
Burnaby	✓	✓	✓	✓	✓	✓	✓	
New Westminister	✓	✓	✓		✓	✓	✓	
North Shore								
Bowen Island		✓	✓	✓			✓	
Lions Bay							**	
North Vancouver City	✓	✓		✓	✓	✓	✓	✓
North Vancouver District	✓	✓			✓	✓	✓	✓
West Vancouver	-	-	-	-	-	-	✓	✓
Northeast								
Anmore	-	-	-	-	-	-		
Belcarra							**	
Coquitlam	✓	✓			✓		✓	✓
Maple Ridge	✓	✓	✓		✓	✓	✓	
Pitt Meadows	✓	✓					✓	
Port Coquitlam	✓	✓			✓		✓	
Port Moody	✓	✓	✓		✓		✓	

	Cycling Network Plan	Active Transportation Strategy	Complete Streets Policy	Vision Zero Policy	Traffic Calming Program or Policy	Construction Zone Traffic Management Program	40% or More of Students Received Cycling Education in Grades 4-7	Shared Micromobility Program*
Southwest								
Delta	✓	✓	✓	✓	✓	✓	✓	
Richmond	✓	✓	✓		✓	✓	✓	✓
Tsawwassen FN							**	
Southeast								
Langley City	✓			✓	✓		✓	
Langley Township	✓	✓			✓		✓	
Surrey	✓	✓		✓		✓	✓	✓
White Rock	✓	✓	✓	✓	✓		✓	

* Shared micromobility includes conventional shared bikes, e-bikes and e-scooters

- Indicates non-response to the survey by the local government

** Belcarra, Tsawwassen FN and Lions Bay do not have elementary schools

Shared Micromobility and E-Bikes



A new topic added to this 2023 State of Cycling benchmarking report is shared micromobility and e-bikes. Technological changes over the past 20 years have made shared bicycles and scooters, including electric-assist bikes and electric scooters, much easier to own and operate, and as a result, they are now widely popular in Metro Vancouver. These technological changes have accelerated in the past five years. When the last State of Cycling report was produced in 2019, bikeshare systems were operating in Vancouver, Electoral Area A (University of British Columbia), Richmond, Port Coquitlam and Port Moody, with about 1,750 conventional bikes throughout the region. By 2023, a more diverse mix of bike, e-bike and e-scooter shares were operating in Vancouver, Electoral Area A, Richmond, Coquitlam, City of North Vancouver, District of North Vancouver and West Vancouver, with over 3,500 bikes and scooters across the nine jurisdictions. In 2022, the City of Vancouver's Mobi by Rogers, the oldest and largest bikeshare system in the region had 2,000 bikes and 600 e-bikes throughout the city, on which over 2.7 million kilometres were travelled.



Photo credit (left): Alex Trujillo

In addition to shared mobility options, people are increasingly purchasing e-bikes and e-scooters for personal use, including a high number of older adults and those carrying large and heavy loads via bike. In particular, more people are using cargo e-bikes and e-scooters to deliver goods and carry children, which was much harder to do before the proliferation of electric assist bikes, especially with this region’s hilly geography. According to TransLink’s Cycling Perceptions Survey, 12% of Metro Vancouver residents reported having access to an e-bike in 2023, more than double the percentage in 2019. E-bike access is highest on the North Shore, with 22% of survey respondents reporting having access to one.

Since e-bikes and e-scooters use the bikeway network, require electric charging, and are credited with taking car trips off the road, we have combined them here. This combination is not without controversy as e-bikes are the only electric-assist micromobility device that is legally permitted in the region. E-scooters are currently permitted only on a pilot basis in BC and only in jurisdictions participating in the electric kick scooter pilot project. To date, these jurisdictions include Coquitlam, the City of North Vancouver, Port Moody, Richmond, Vancouver, the District of North Vancouver, West Vancouver, and Langley Township.

E-bikes typically require pedalling whereas e-scooters require minimal human power, and unlike cycling, there are fewer obvious health benefits. Researchers have found that some of the health benefits of using e-scooters include a means of low-intensity activity focused on core strength and a positive increase in community connectedness, social interaction, and overall mental health. It is important to note that there has been an increase in collisions between e-scooter users and motor vehicles, which further outlines the continued need to protect vulnerable road users from traffic. The uptake and behaviour of e-bike and e-scooter users is a quickly evolving space that we expect to revisit and expand on in the next State of Cycling report.

Regional and Provincial Support for Cycling

Since the last State of Cycling report, TransLink adopted the Access for Everyone Plan in 2022 to guide the first 10 years of transportation investments that will be needed to help the region make progress towards the long-term vision and goals outlined in Transport 2050. It includes commitments to rapidly complete up to 75% of the Major Bikeway Network and implement bikeway networks within all 26 Urban Centres across the region. It also invests in developing a regional road safety strategy and working with local governments to enhancement the safety of streets throughout the region.

TransLink supports journeys that combine bike and transit by providing high quality bike parking at transit facilities around the region. In 2021-22, TransLink launched an on-demand bike parking pilot project at six locations. The smart lockers and racks offer flexible rental periods, keyless entry and payment via app. TransLink is also continuing to work to expand its bike parkade program, including opening new parkades and improving existing ones.

There is strong momentum to put in place the conditions needed to enhance cycling before the next State of Cycling benchmarking report. However, without additional stable sources of funding, this momentum will be unachievable.

At the provincial level, Move, Commute, and Connect, which was brand new at the time of the last State of Cycling report, has now been in place for several years. It adopts a Vision Zero approach and aims to double the percentage of trips taken by active transportation by 2030. The province has announced CleanBC goals around increasing active transportation, with a goal of 30% mode share by sustainable modes (public and active transportation) by 2030. In 2019, the province also published the first comprehensive active transportation design guide to advance the quality of infrastructure by practitioners and key stakeholders across British Columbia. That guide has continued to be updated through the release of supplements and a fully updated design guide will be released in 2025. The province has directly supported improved cycling facility design with its Active Transportation Infrastructure Grants Program, which has committed over \$80 million to local and Indigenous governments since 2019. Several of these grants have supported growing Metro Vancouver's cycling network. The province has also committed over \$25 million to active transportation education and encouragement programs

Next Steps

This benchmarking report shows that although we have made progress in a range of cycling metrics in recent years, we must continue our work to develop a connected cycling network that is *Comfortable for Most* people and address other factors that support cycling, including identifying and responding to emerging trends.



The period since the 2019 report on the State of Cycling has been characterized by changes that impacted not only trends in active transportation but all aspects of life in Metro Vancouver. Nevertheless, there has been progress in the construction of *Comfortable for Most* bikeways, increases in women and girls cycling, and improvements in safety.

Metro Vancouver now has almost 5,000 lane kilometres of bikeway network, with 466 kilometres of bikeway network added between 2019-2023. Nearly half of the region's bikeway network features *Comfortable for Most* facilities and just under 70% of the region's population now lives within 400 metres of a *Comfortable for Most* facility.

Almost all local governments in the region have bicycle network plans and active transportation strategies; cycle education has been completed by 65% of grade 4-7 students throughout the region. These are the actions that underlie the positive outcomes measured in this report such as the decrease in the rates of collisions involving people riding bikes and movement towards gender parity in cycling rates.

Travel behaviours have shifted since the COVID-19 pandemic, leading to some surprising changes in cycling rates in Metro Vancouver as well as in cities around the world. After steadily increasing since the 1990s, overall cycling rates in the region declined during the reporting period. We believe this is a temporary change.

It will be reversed through cycling becoming a better travel option through further investment in *Comfortable for Most* bikeways in Urban Centres and on the Major Bikeway Network that make cycling a convenient option for daily commute and travel needs. It will also be reversed as e-bikes make cycling easier and more accessible, including for people travelling longer distances and carrying heavy loads.

The Access for Everyone plan covers the supportive infrastructure for this expansion. This includes capital cost-sharing on bikeway facility improvements and maintenance, providing bikeway design and placement guidance, working with local governments to increase bike parking and access to e-bike charging stations, as well as encouraging safer roads for all road users.

Cycling continues to be one of the most efficient forms of transportation in urban areas and for trips under five kilometres. It is space-efficient, inexpensive for individuals, and requires infrastructure that is remarkably cost-efficient.

Cycling has the potential to be a powerful tool in our region's response to the climate emergency. Recent developments in e-bikes, shared bikes, and other forms of shared micromobility are transforming the ways we travel and may eventually alter the definition of cycling. We are at a point of departure and change, and our next State of Cycling report will likely look at these emerging developments in greater detail.

This report provides a snapshot of where we are at with this work to support planners, built environment practitioners, politicians, and the public in delivering initiatives that create a positive cycling environment. We must work together to take forward the lessons from this report and ensure that cycling network construction continues, particularly the Major Bikeway Network and bikeway networks in Urban Centres. We hope to see more supportive policies and practices from local governments throughout the region and ongoing collaboration between local governments, at the regional level, and with the provincial government.

Times of change are also times of opportunity. This is our chance to further embed cycling into the fabric of our region – and to use cycling's positive impacts to shape a region that works for all in the future.

FIGURE 19: REGIONAL STATISTICS

	Total Lane Kilometres of Bikeways (2023)	Lane Kilometres of Network Comfortable for Most (2023)	% of Population Within 400 Metres of Comfortable Network (2023)	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips (2018-2022)*)	Supportive Policies and Practices (2023)**
Metro Vancouver	4861.5	2260.8	69%	1.86%	37.2%	22	Low
Vancouver/UBC							
Electoral Area A	72.4	30.1	100%	8.3%	25.4%	19	Moderate
Vancouver	631.1	496.0	90%	5.3%	42.2%		High
Burnaby/New Westminster							
Burnaby	358.9	190.6	74%	0.9%	24.1%	16	High
New Westminster	110.2	69.8	93%	0.9%	16.7%		High
North Shore							
Bowen Island	1.9	1.9	0%	2.4%	33.3%	26	Moderate
Lions Bay	6.5	0	0%	0%	0%		Low
North Vancouver City	107.0	60.3	96%	2.2%	31.3%		Moderate
North Vancouver District	133.1	61.0	50%	2.4%	33.0%		Moderate
West Vancouver	215.2	26.9	48%	1.7%	23.5%		Low
Northeast							
Anmore	0	0	0%	0%	0%	51	Low
Belcarra	5.8	5.8	0%	0%	0%		Low
Coquitlam	196.6	99.9	56%	0.5%	31.3%		Moderate
Maple Ridge	117.9	41.9	41%	0.5%	26.5%		Moderate
Pitt Meadows	193.4	152.3	68%	0.9%	28.6%		Low
Port Coquitlam	144.8	81.1	84%	1%	27.1%		Moderate
Port Moody	94	43.8	73%	0.6%	15.4%		Moderate

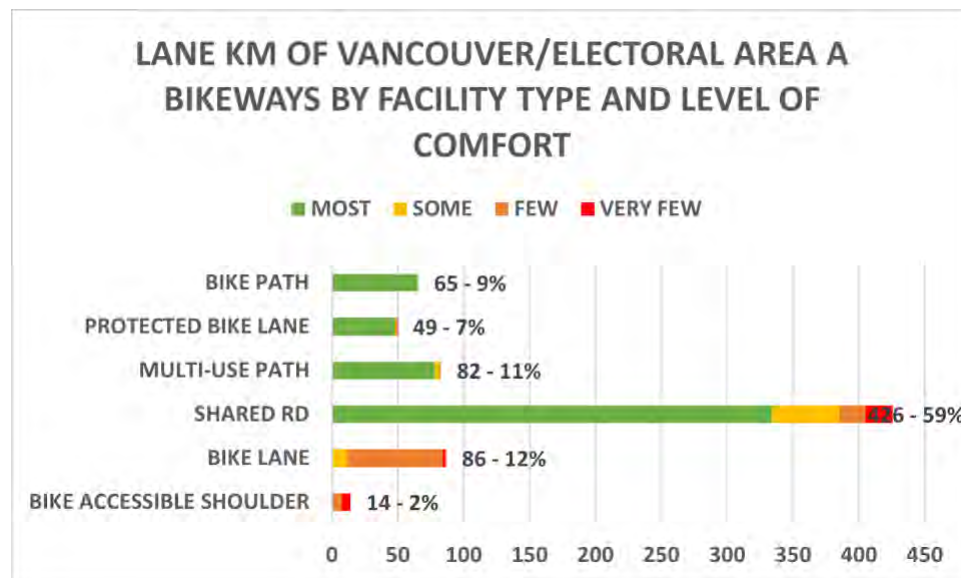
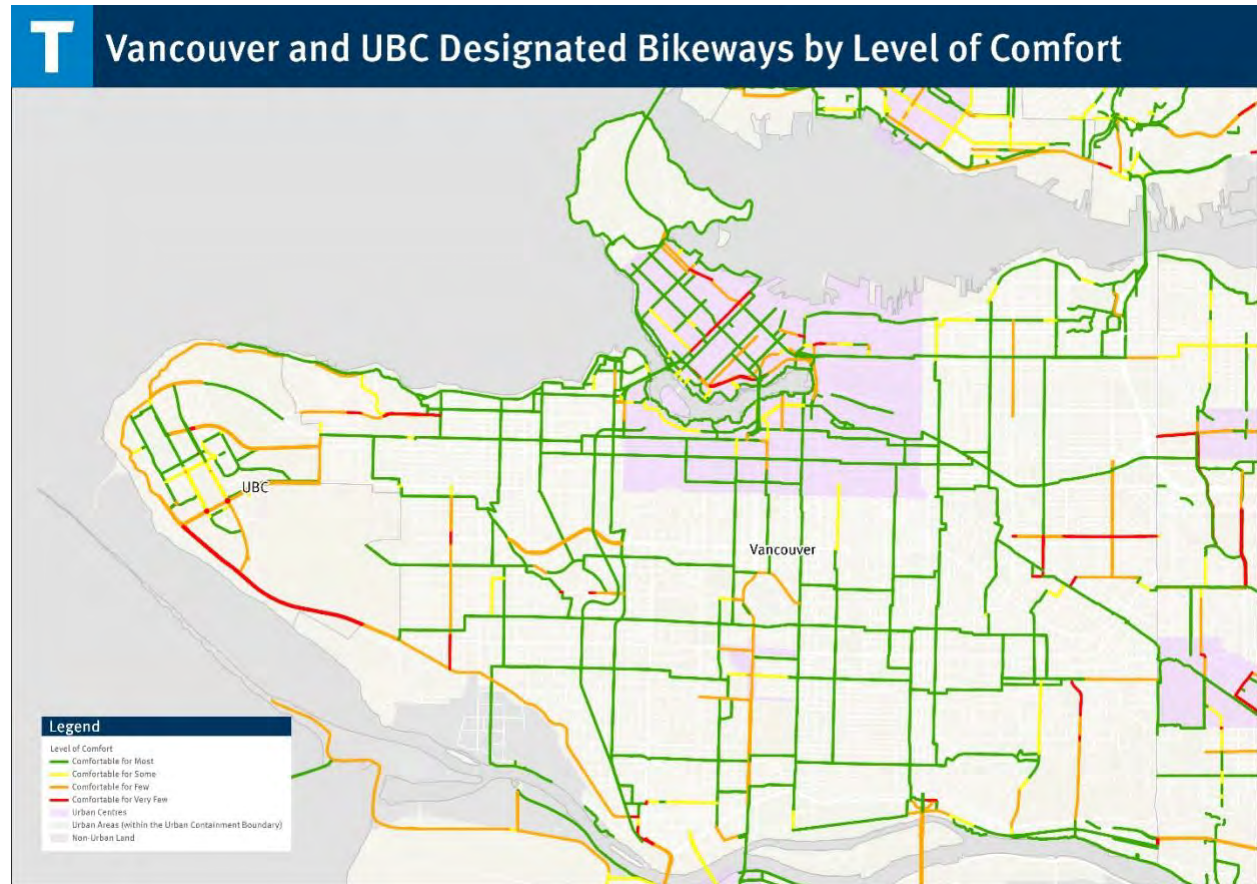
	Total Lane Kilometres of Bikeways (2023)	Lane Kilometres of Network Comfortable for Most (2023)	% of Population Within 400 Metres of Comfortable Network (2023)	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips (2018-2022)*)	Supportive Policies and Practices (2023)**
Southwest							
Delta	390.7	115.4	52%	1%	29.3%	30	Moderate
Richmond	343.8	167.9	60%	1.2%	27.0%		Moderate
Tsawwassen FN	17.2	11.2	84%	1.9%	0%		Low
Southeast							
Langley City	78.5	34.2	67%	0.6%	14.3%	33	Moderate
Langley Township	413.0	203.9	60%	0.5%	27.1%		Moderate
Surrey	1186.5	338.7	58%	0.3%	22.7%		Moderate
White Rock	43.2	3.1	21%	0.6%	50.0%		Moderate

* Collision rates are reported only at the sub-area level because of uncertainty in the cycling trip data for smaller population jurisdictions within each sub-area. Collision rates were calculated using ICBC collision data and daily bike trips reported through TransLink's Trip Diary. Lions Bay, Tsawwassen First Nation, Bowen Island, Anmore and Belcarra were included in the sub-area collision rate although no cyclist collision data was reported for these local jurisdictions.

** Rankings within this category are based on the number of approved policies and high to moderate ranked initiatives in the seven categories listed in the Supportive Policies and Practices Section; High is seven or above, Moderate is four to six and Low is three or less. This is a change from the 2019 report, which defined High as six or above, Moderate as four to five and Low as three or less.

Appendix A: Sub-Area Profiles

Vancouver / Electoral Area A (including the University of British Columbia)



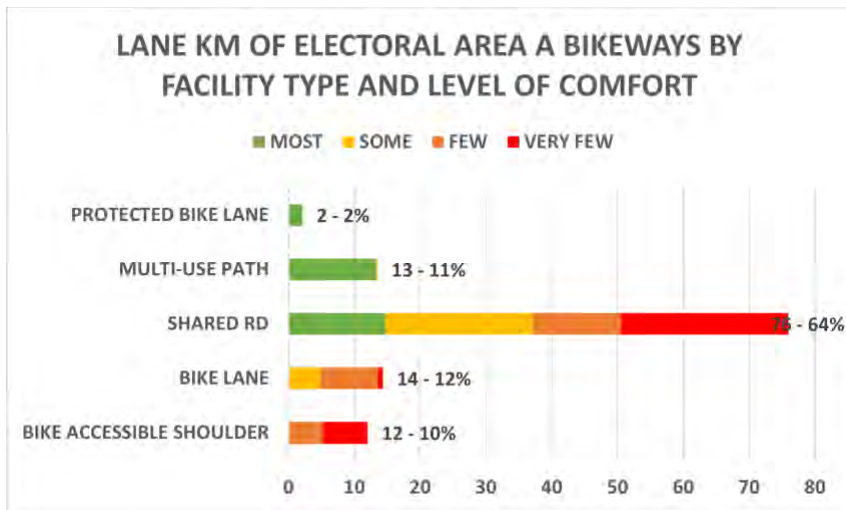
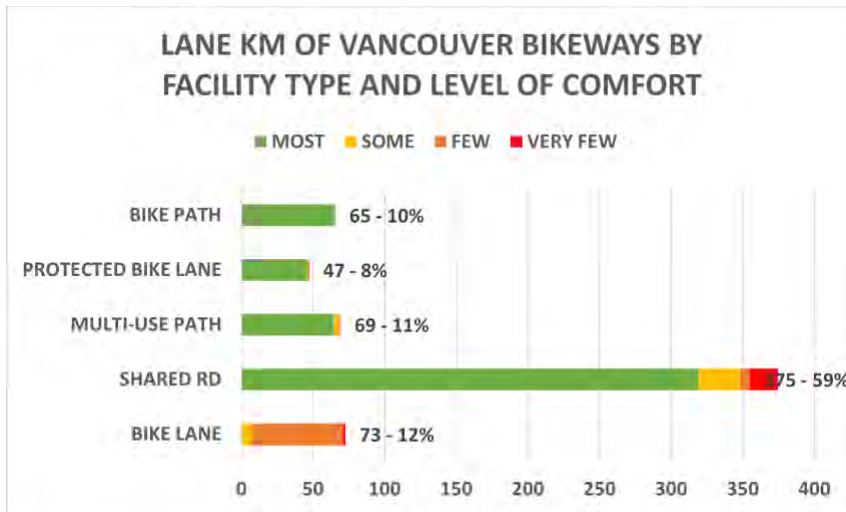
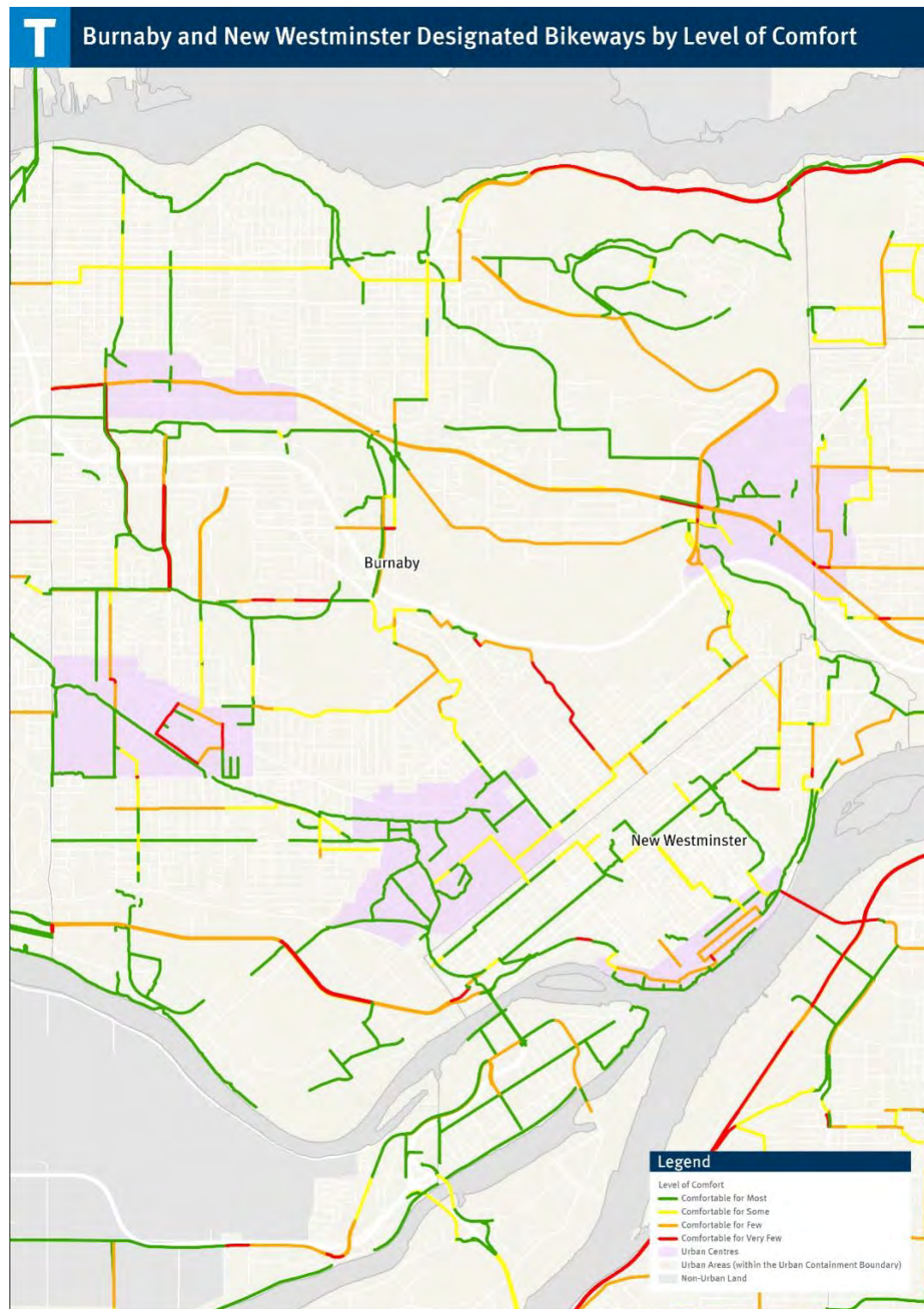
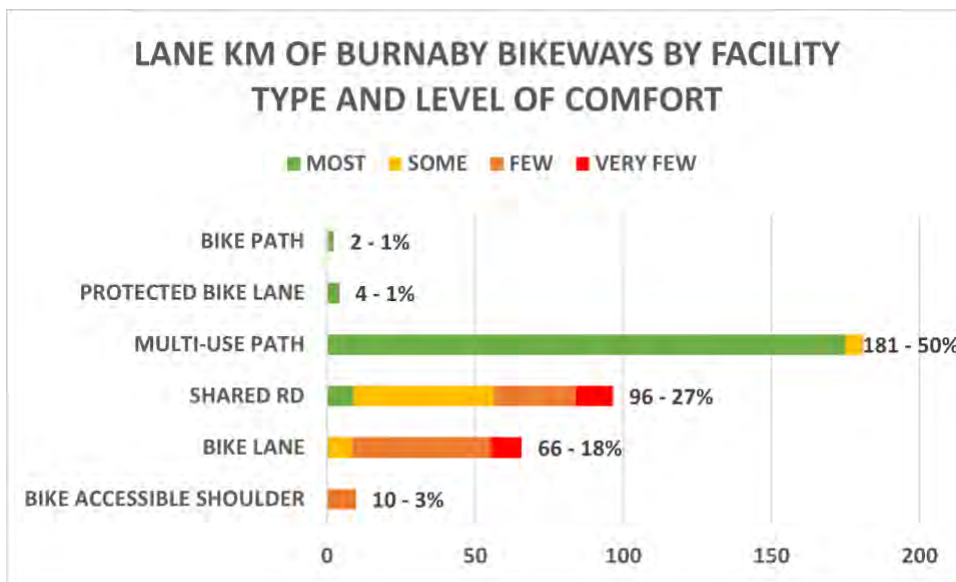
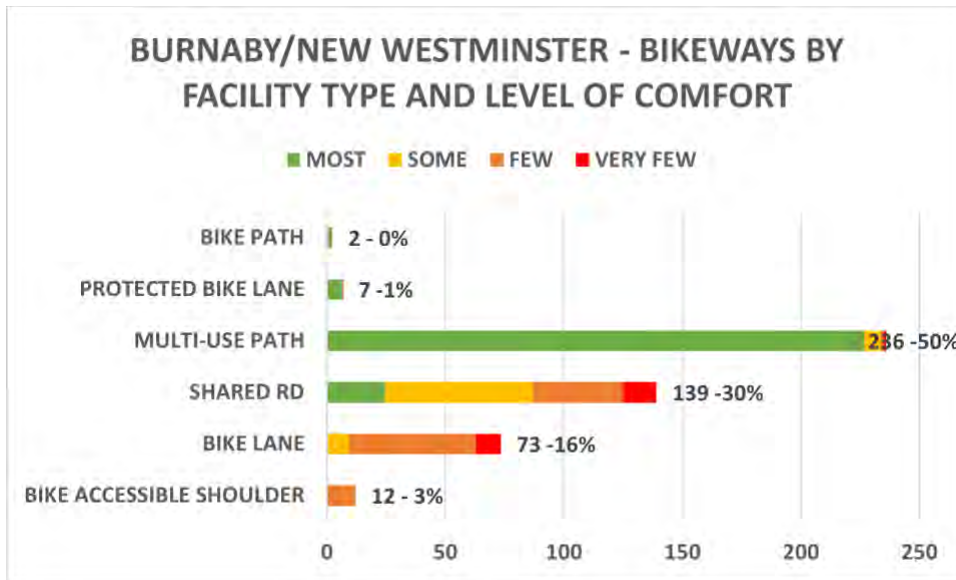


TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

Vancouver/UBC	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Electoral Area A	8.3%	25.4%	19
Vancouver	5.3%	42.2%	

Burnaby and New Westminster





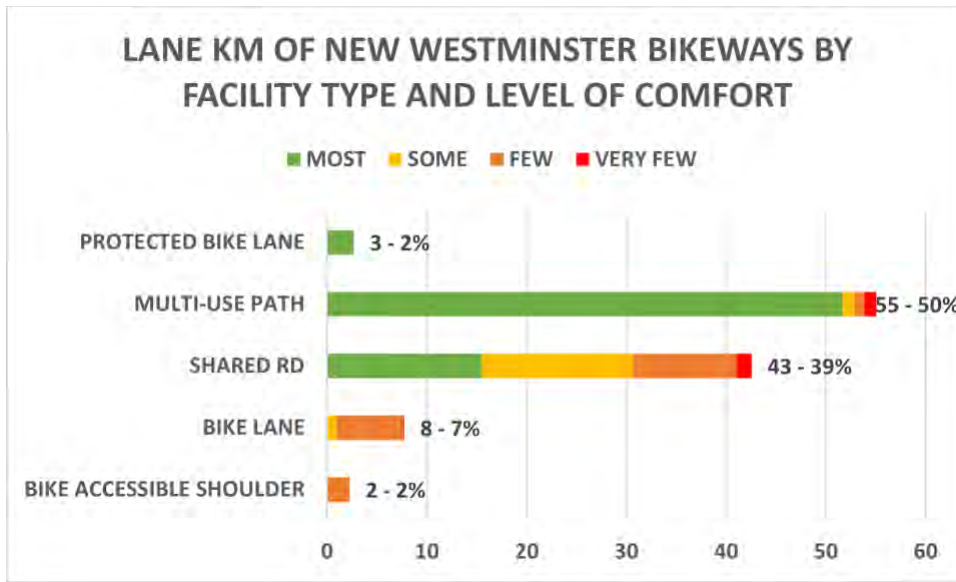
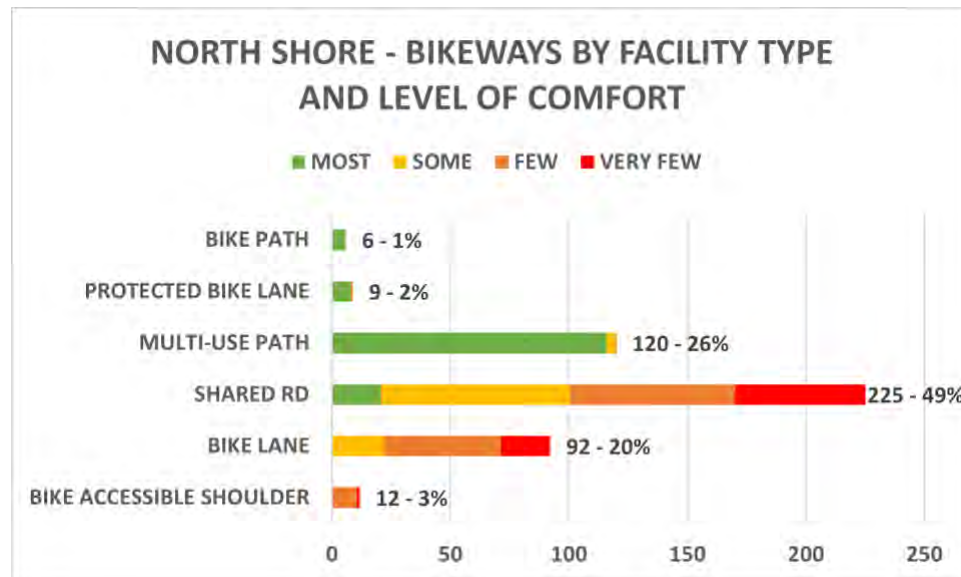


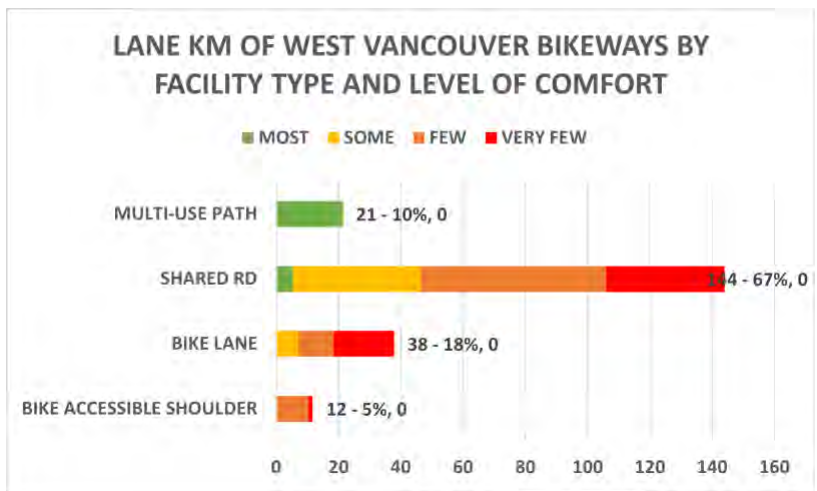
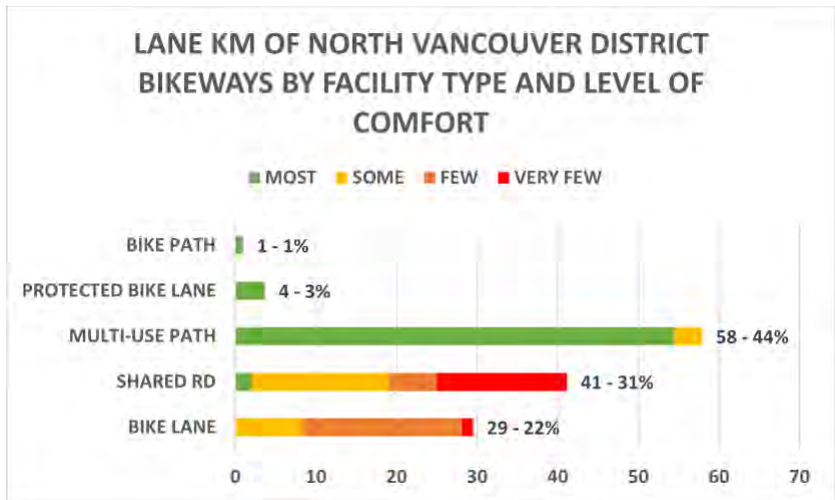
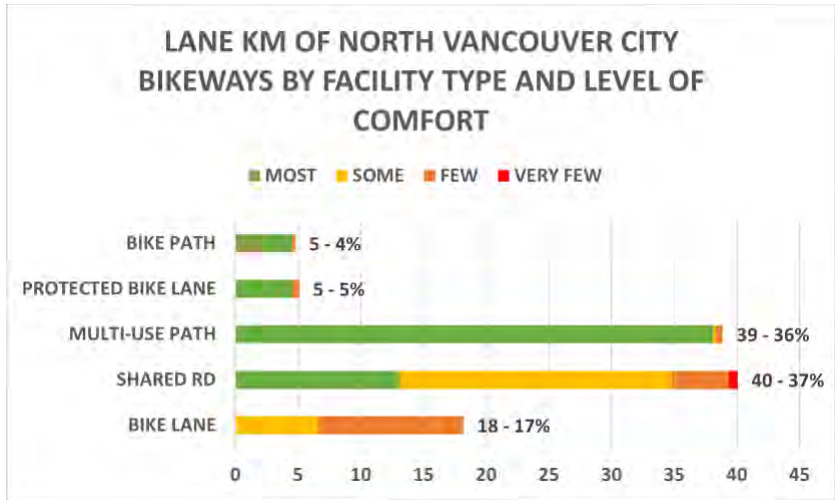
TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

Burnaby/New Westminister	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Burnaby	0.9%	24.1%	16
New Westminister	0.9%	16.7%	

North Shore

(City of North Vancouver, District of North Vancouver, District of West Vancouver, Bowen Island, Lions Bay)





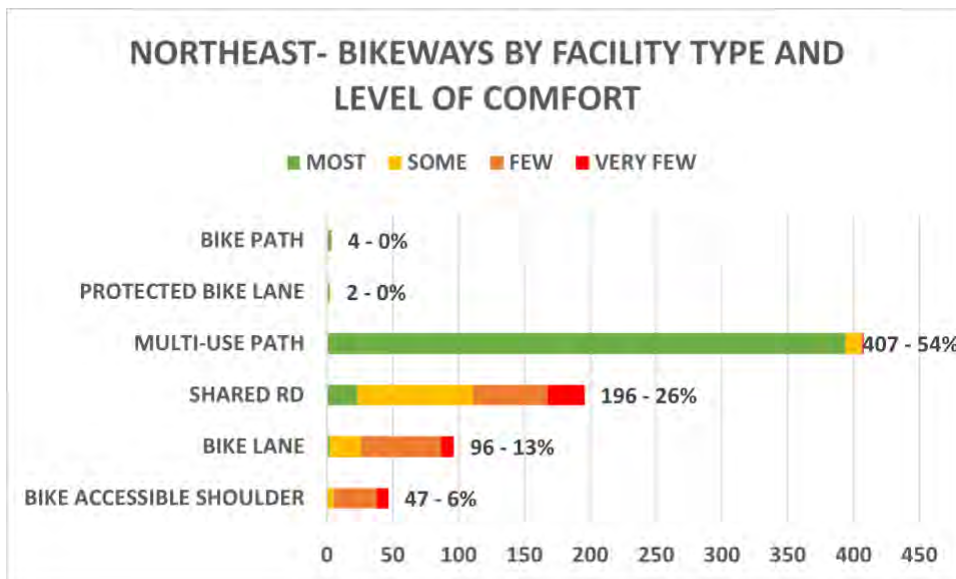
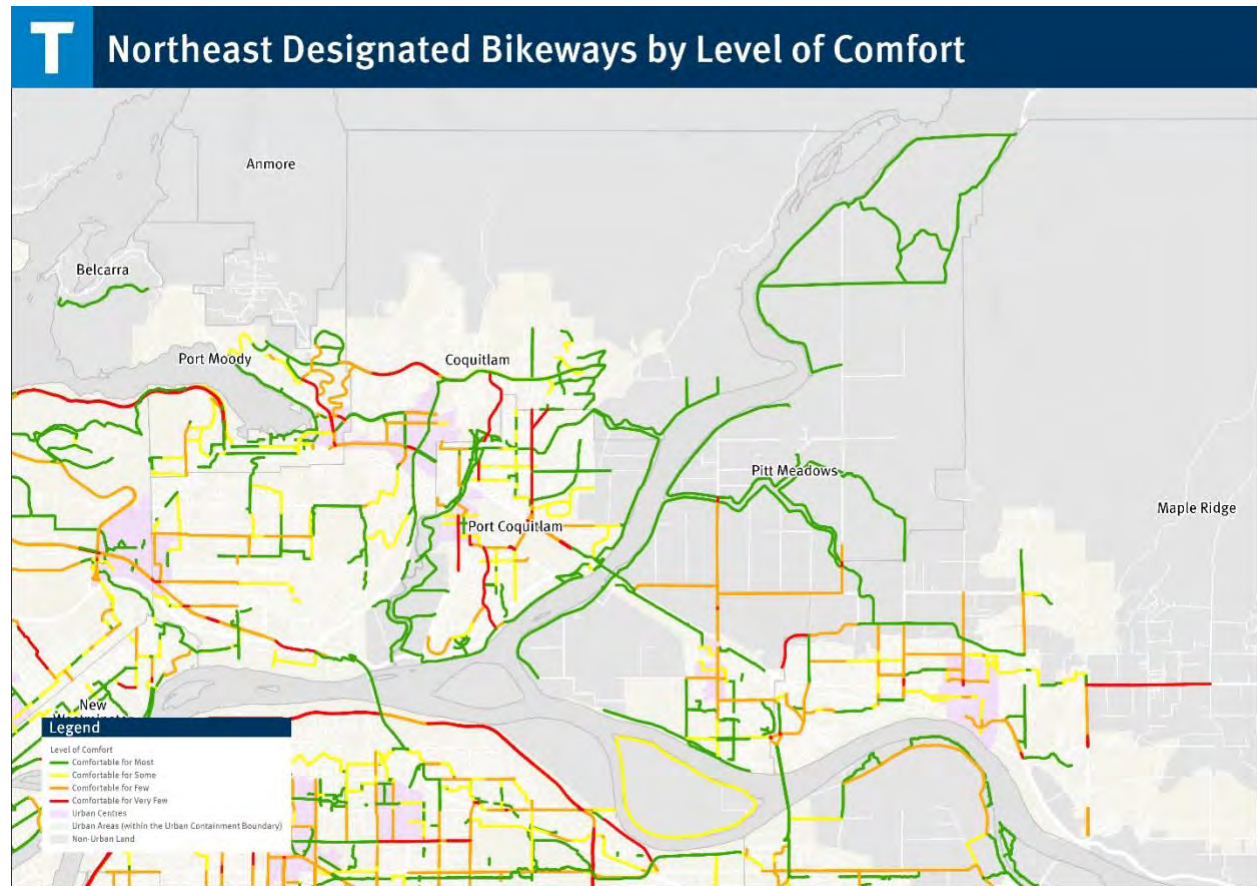
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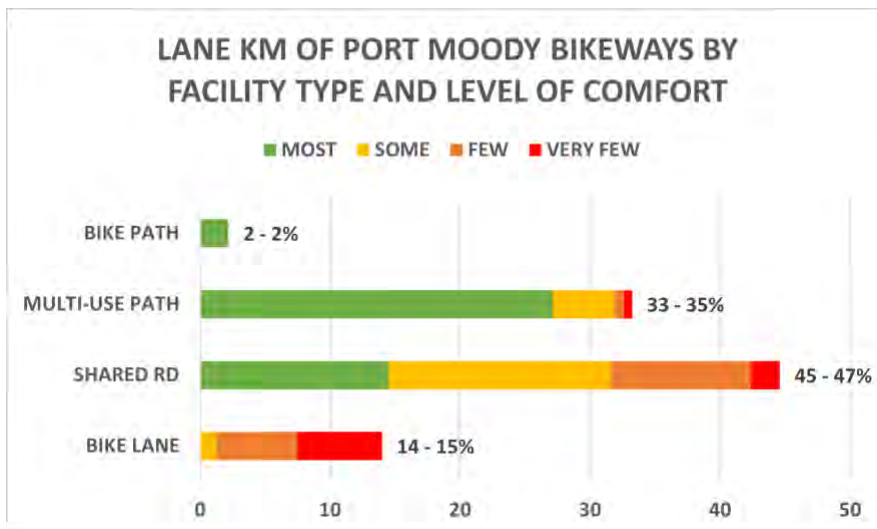
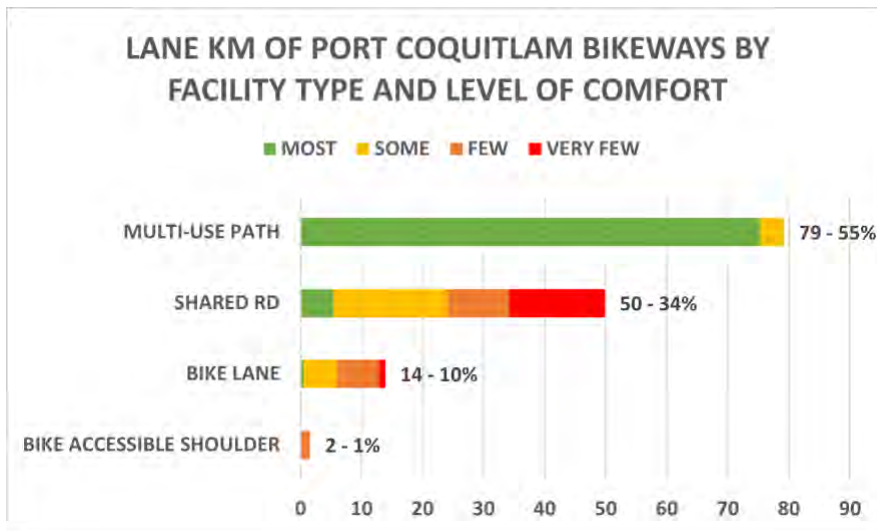
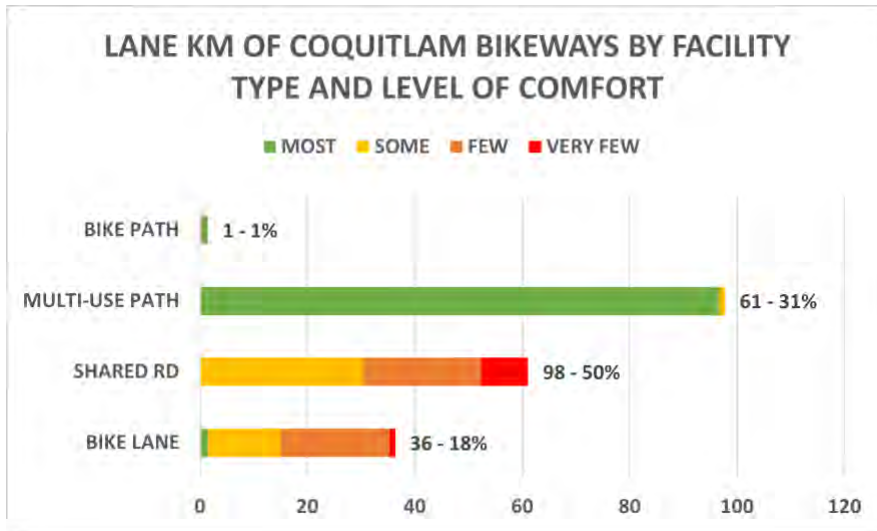
TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

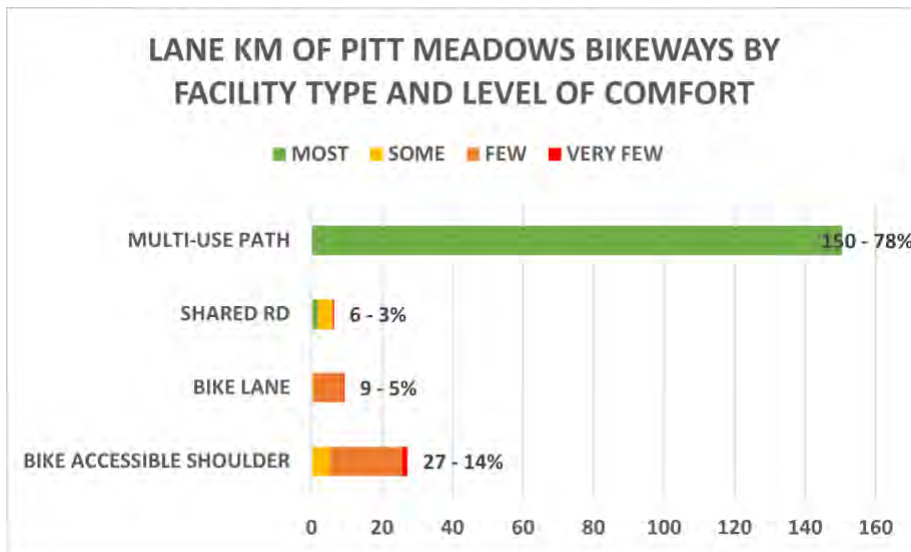
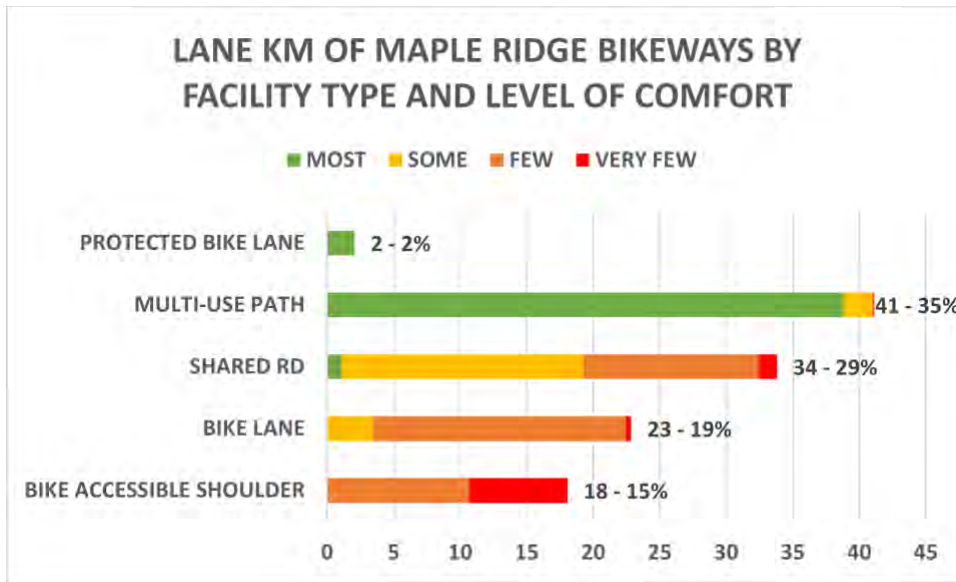
North Shore	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Bowen Island	2.4%	33.3%	26
Lions Bay	0%	0%	
North Vancouver City	2.2%	31.3%	
North Vancouver District	2.4%	33.0%	
West Vancouver	1.7%	23.5%	

Northeast

(Coquitlam, Port Coquitlam, Port Moody, Village of Anmore, Village of Belcarra, Maple Ridge, Pitt Meadows)







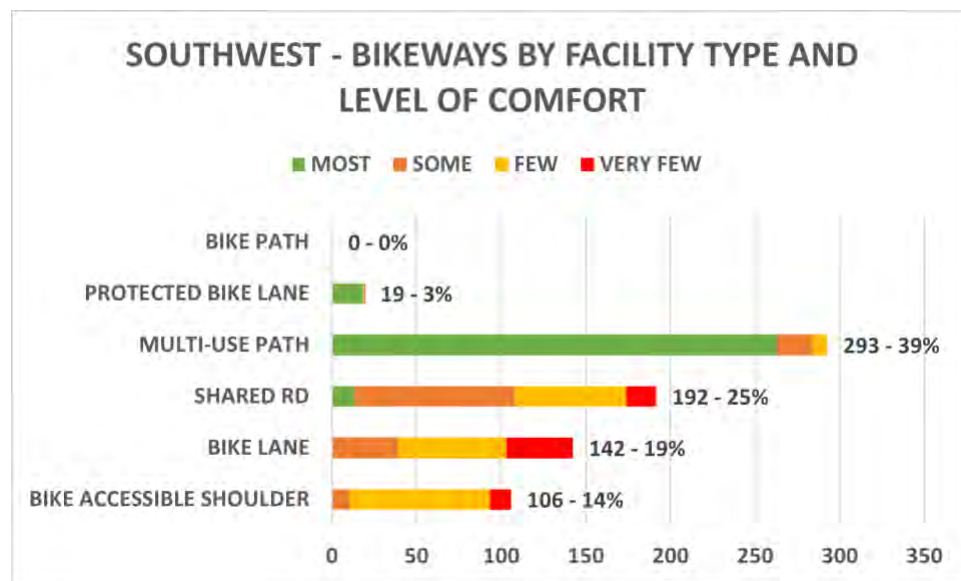
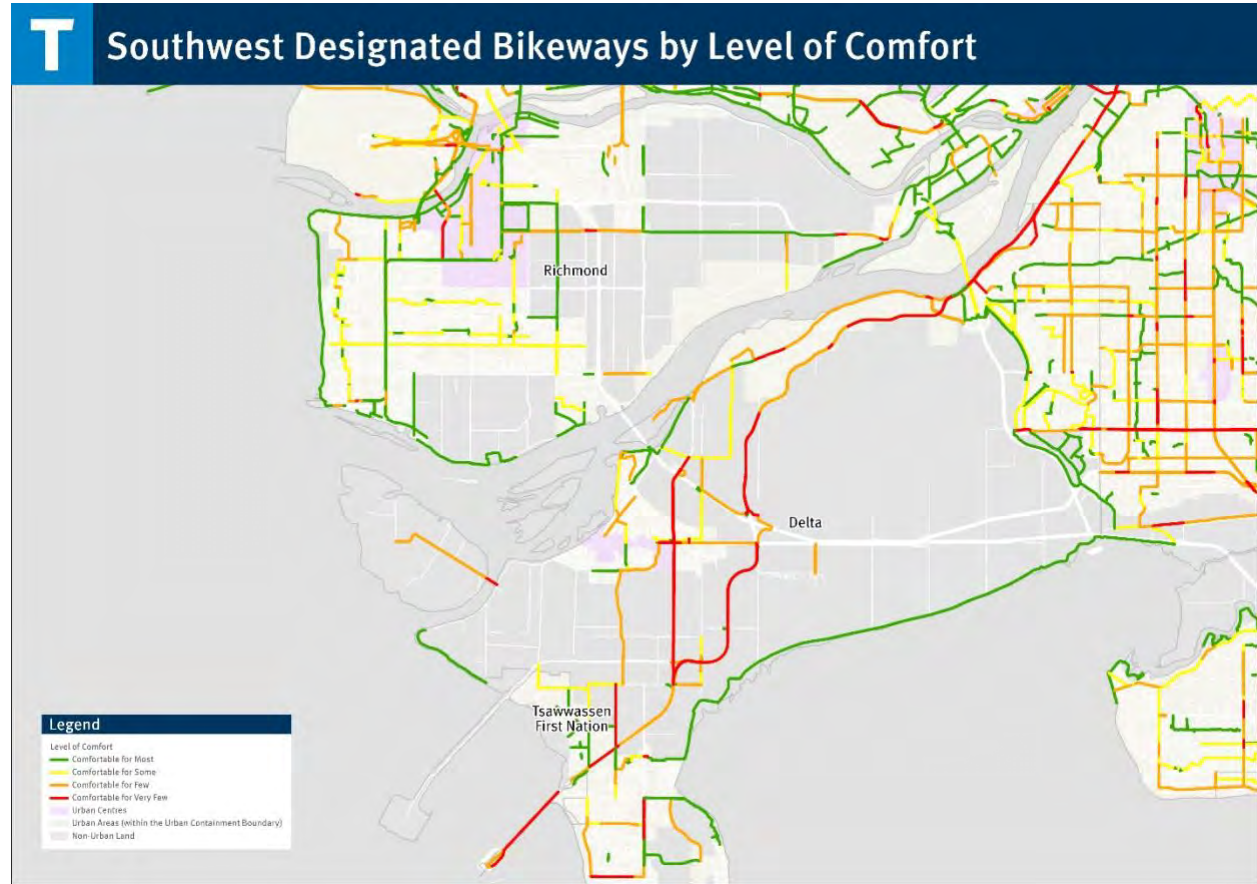
Note: Anmore and Belcarra graphs not prepared due to limited data

TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

Northeast	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Anmore	0%	0%	51
Belcarra	0%	0%	
Coquitlam	0.5%	31.3%	
Maple Ridge	0.5%	26.5%	
Pitt Meadows	0.9%	28.6%	
Port Coquitlam	1%	27.1%	
Port Moody	0.6%	15.4%	

Southwest

(Richmond, Delta, Tsawwassen First Nation)



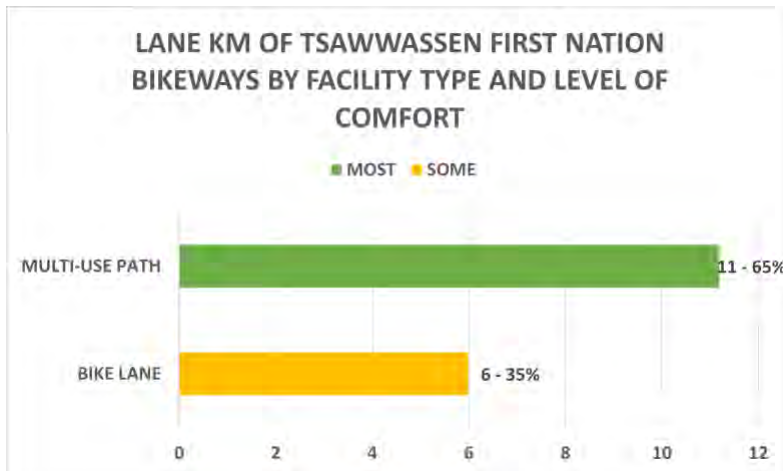
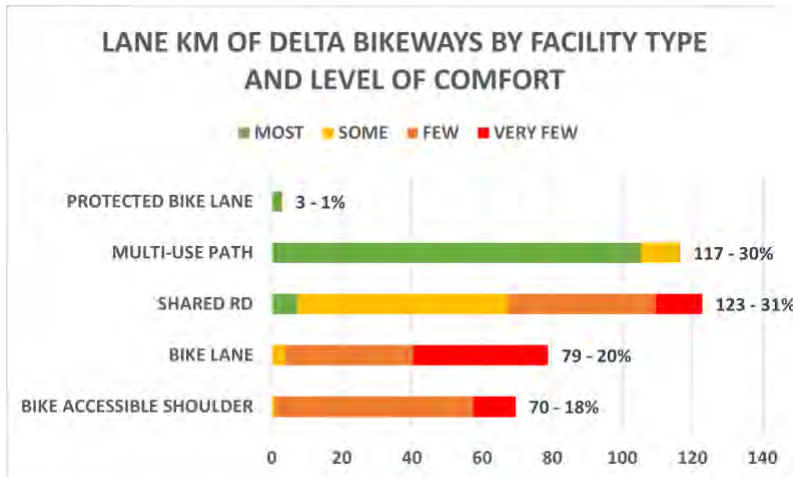
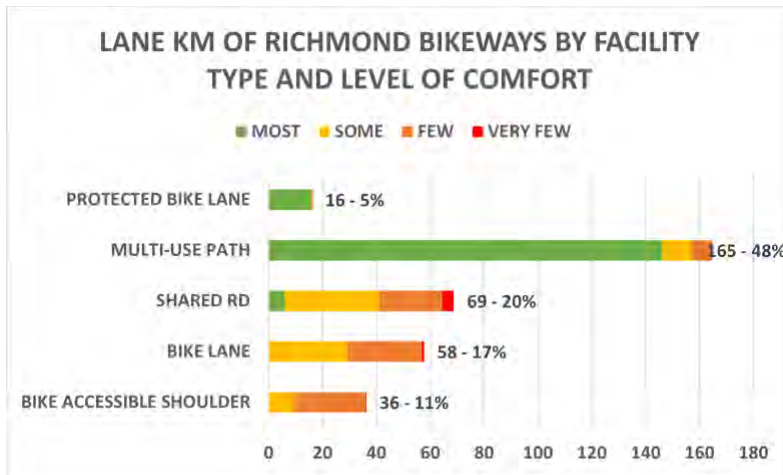
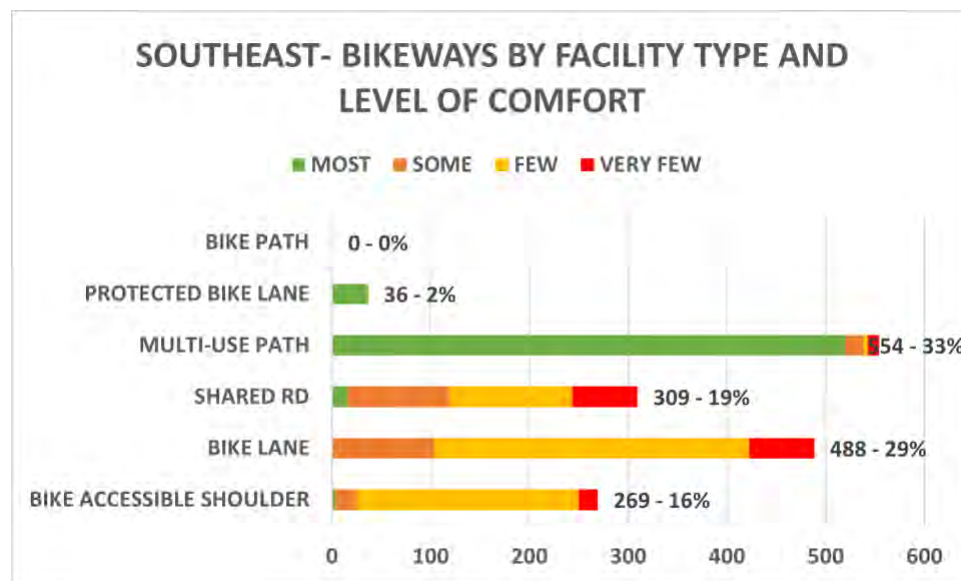
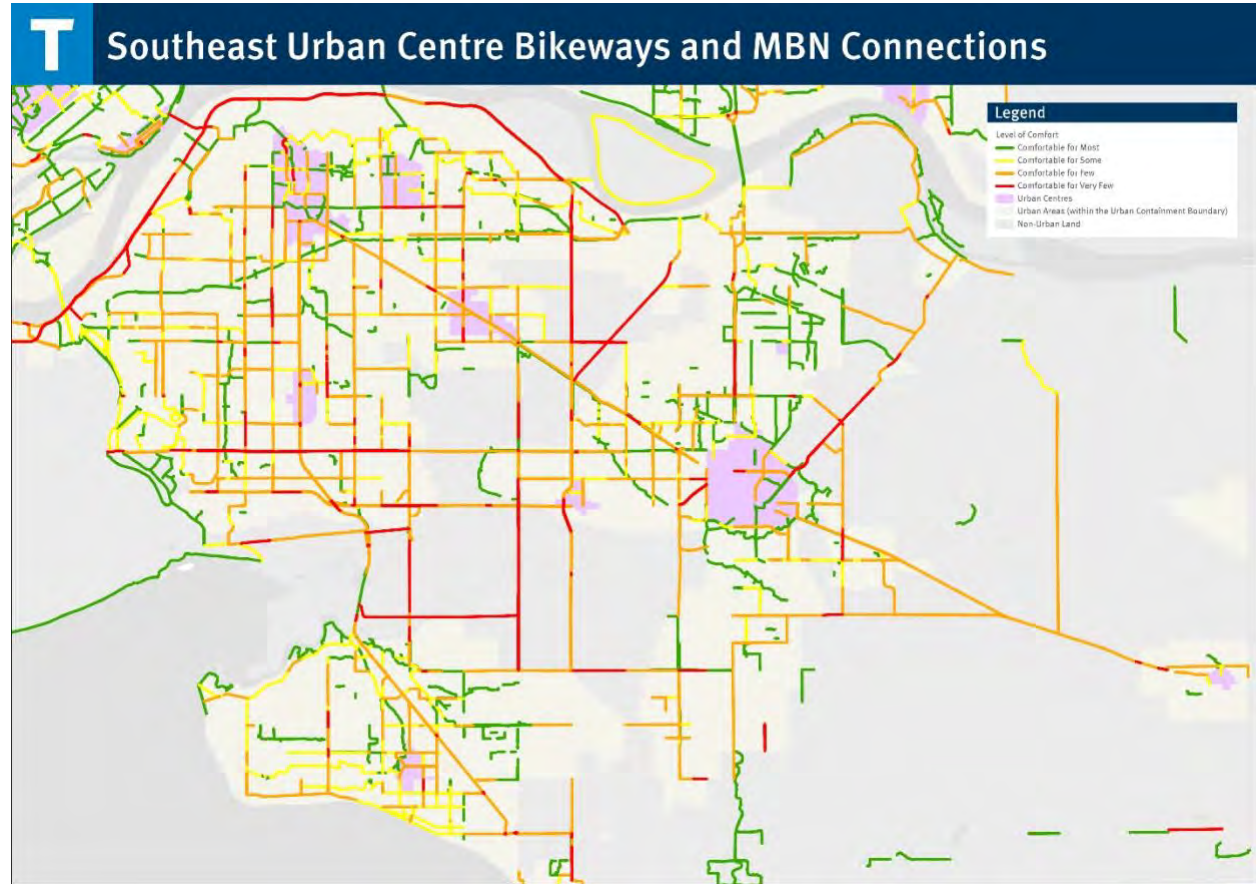


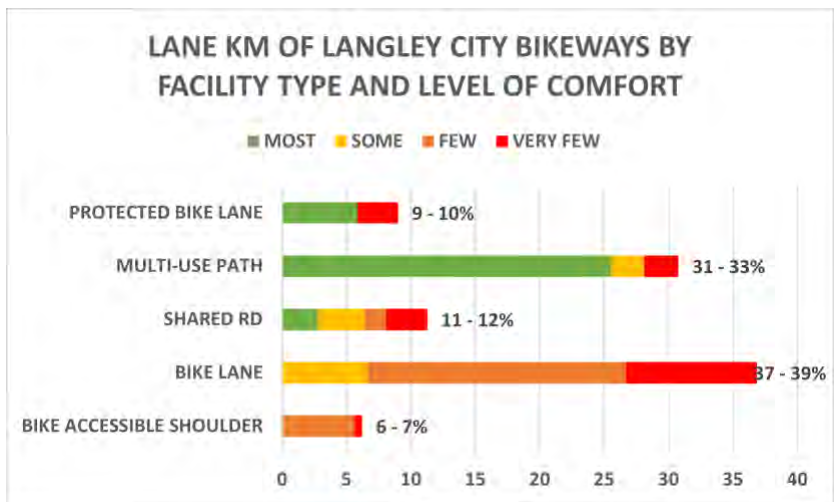
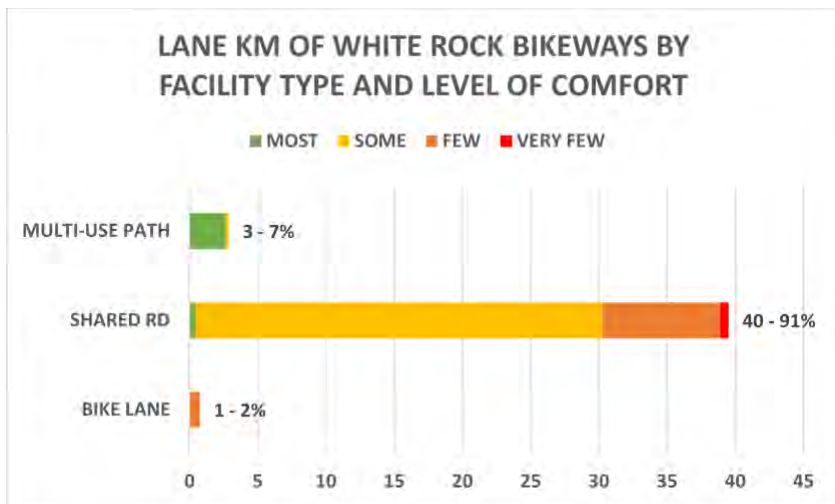
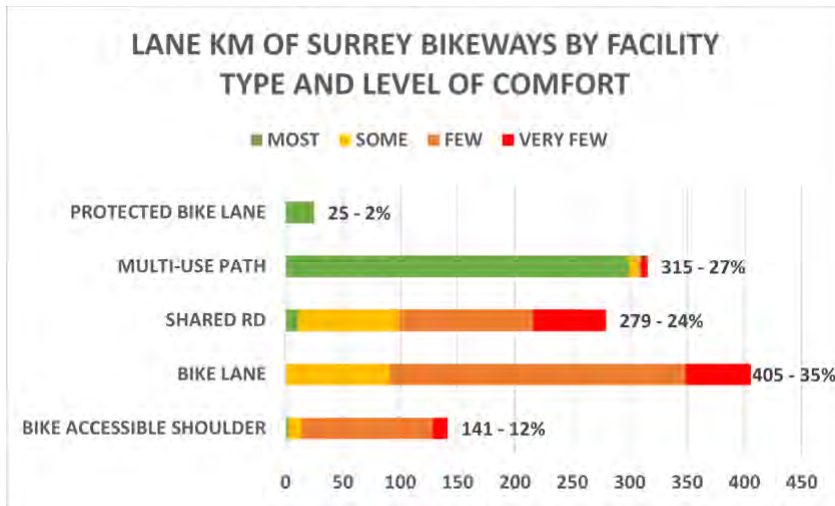
TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

Southwest	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Delta	1%	29.3%	30
Richmond	1.2%	27.0%	
Tsawwassen FN	1.9%	N/A	

Southeast

(Surrey, White Rock, City of Langley, Township of Langley)





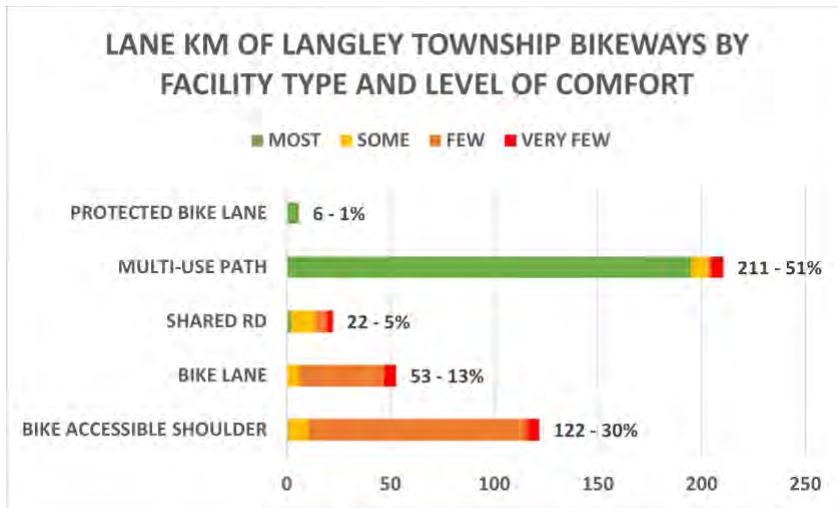


TABLE: CYCLING RATES, SHARE OF TRIPS BY WOMEN AND GIRLS AND SAFETY RATES

Southeast	Cycling Rates (2021)	Share of Trips by Women and Girls (2021)	Safety (Collisions per Million Bike Trips)
Langley City	0.6%	14.3%	33
Langley Township	0.5%	27.1%	
Surrey	0.3%	22.7%	
White Rock	0.6%	50.0%	

Appendix B: Data Sources

Data for this report was drawn from a variety of sources including:

Statistics Canada: Population data and Journey to Work data (which represents people who commute to and from work) were drawn from the 2011, 2016 and 2021 Canada Census.

ICBC Crash Data: Collision data was drawn from ICBC's collision database covering collisions up to and including 2022. ICBC data is available for the entire region; however, known limitations of the data set include the fact that ICBC data only includes information on injuries which involve motor vehicles and which are reported to ICBC.

Province of BC: The Province's Digital Road Atlas provided the road network lines, speed limits and roadway classifications. These were used to inform the classification of bikeways by level of comfort.

TransLink Trip Diary: Provided estimates of daily utilitarian cycling trips region-wide and for most local jurisdictions, except for some smaller municipalities, for which estimates were not available. These daily trip estimates, along with ICBC collision data, were used to calculate subarea collision rates for cyclists.

TransLink and HUB Cycling: The State of Cycling Regional Network dataset provided data about location, type and level of comfort of cycling facilities around the region. Data from the 2019 Benchmarking the State of Cycling report provided comparator data for this report.

TransLink Cycling Perceptions Survey: Provides information on the current use of cycling, intentions to cycle in the future, and attitudes toward cycling. The survey was conducted in two waves in September 2019 and December 2023.

Municipal Self Reporting: Municipal representatives provided information concerning bicycle infrastructure, bicycle infrastructure spending, and supportive policies and practices.

Appendix C: Bikeway Classification System (2023)

Type *	Class A	Class B	Class C	Class D	Class E
Separated from vehicle traffic					
<p>Bike Path Off-road facility for the exclusive use of people cycling, may be unidirectional or bidirectional. Separate from both people driving and walking but designed based on bicycles operating in parallel with pedestrians, especially at intersections.</p>	<p>Width: Bidirectional 3.0-4.8m, Unidirectional 2.0-3.0m Posted Speed: N/ A Volume: N/A</p>	<p>Width: Bidirectional 2.4-2.9m, Unidirectional 1.5-1.9m Posted Speed: N/ A Volume: N/A</p>	<p>Width: Bidirectional 2.1-2.3m, Unidirectional 1.2-1.4m Posted Speed: N/ A Volume: N/A</p>	<p>Width: Bidirectional <2.1m Unidirectional <1.2m Posted Speed: N/ A Volume: N/A</p>	<p>Never</p>
<p>NOTES: When in a road right of way (ROW): A bike path should fall outside of the clear zone (1.2 m on roadways with posted speeds of ≥ 60 km/h - see Transportation Association of Canada Geometric Design Guide (TAC GDG); see Table 7.3.1 for higher speed roads). Further, designs of bike paths should avoid obstacles in the pathway, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards. If cyclist volumes exceed 1,500 per day then <i>recommended</i> facility widths should be ≥ 3.6 m bidirectional, and ≥ 2.4 m unidirectional. Bike Path's are generally appropriate in association with higher speed roads.</p>					
<p>Protected Bike Lane Exclusive on-road facility delineated by a vertical barrier element/physical separation from motor vehicles, as well as separation from pedestrians. Can be unidirectional or bidirectional.</p>	<p>Width: Bidirectional 3.0-4.8m, Unidirectional 2.0-3.0m Posted Speed: 0-60 km/h Volume: N/A</p>	<p>Width: Bidirectional 2.4-2.9m, Unidirectional 1.5-1.9m Posted Speed: 0-60 km/h Volume: N/A</p>	<p>Width: Bidirectional 2.1-2.3m, Unidirectional 1.2-1.4m Posted Speed: 70-80 km/h Volume: N/A</p>	<p>Width: Bidirectional <2.1m Unidirectional <1.2m OR Posted Speed: 90 km/h Volume: N/A</p>	<p>Width: Bidirectional <2.1m Unidirectional <1.2m Posted speed: 100+ km/h Volume: N/A</p>
<p>NOTES: Separation from vehicles by delineator (curbs, bollards, concrete barriers, etc.) is required. Type of delineator dependent on speed and volume of traffic (see TAC GDG Chapter 5, section 5.7.5). At intersections, a protected bike lane should be set back 6 m from the parallel travel lane (see TAC GDG, Chapter 5, section 5.6.2.3). Parking may provide additional barrier beyond the delineator. At a minimum, curbstops over 100 mm high are necessary with periodic gaps for drainage and wheelchair access. Width of delineator is 0.30-1.0 m. If adjacent to parking, min. separation is 0.80 m (Class A) 0.60 m (Class B).</p> <p>Volume: If motor vehicle ADT is greater than 4,000, this facility is more acceptable than others. If cyclist volumes exceed 1,500 per day then <i>recommended</i> facility widths should be 3.6 m bidirectional, and 2.4 m unidirectional.</p>					
<p>Multi-Use Path (MUP) Off-road facility that allows for shared use by people cycling, walking, and rolling.</p>	<p>Width: Bidirectional 3.5-6.0m, Unidirectional bikes 3.0-4.0m Posted Speed: N/A (ie outside of road ROW) Volume: N/A Paved</p>	<p>Width: Bidirectional 3.0-3.4m, Unidirectional bikes 2.4-2.9m Posted Speed: 0-50 km/h on local roadway OR Posted Speed: 50-60 km/h on arterial or collector roadway Lateral buffer or physical barrier: See Notes field. Volume: N/A Paved</p>	<p>Width: Bidirectional 2.7-2.9m, Unidirectional bikes 2.1-2.3m Posted Speed: 70-80 km/h Physical Barrier (per TAC Table 5.7.1 and see Notes field) Paved or Unpaved</p>	<p>Width: Bidirectional <2.7m, Unidirectional bikes <2.1m Posted Speed: 70-80 km/h & desired lateral buffer as per TAC Table 7.3.1 OR Posted Speed: 50-60 km/h & deficient lateral buffer or barrier (see Notes field)</p>	<p>Posted Speed: 90+ km/h OR Posted Speed: 70+ km/h & no lateral buffer or barrier</p>

Type *	Class A	Class B	Class C	Class D	Class E
<p>NOTES: MUPs are not intended to replace a sidewalk where there is sufficient motor vehicle or pedestrian and bicycle volumes that may lead to high rates of conflict, especially in Urban Centres and/or Areas of High Cycling Potential. As a guide, MUPs are not recommended when pedestrian and bicycle traffic volumes exceed a total peak hour volume of 200 users. Further, designs of MUPs should avoid obstacles in the pathway, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards.</p> <p>Guidance on lateral buffer (clear zone) and vertical separation</p> <p>A MUP should fall outside of the clear zone (desired $\geq 1.2\text{m}$ lateral buffer on roadways with posted speeds of 50 km/h in urban environments as per TAC GDG Ch. 7 Section 7.7 and a desired $\geq 2.0\text{m}$ lateral buffer on roadways with posted speeds of 60 km/h (as per BC TAC Supplement Ch. 600, pg. 620-14). Physical barriers to protect MUP users from accidentally falling into the adjacent travel lane are advisable when the minimum lateral buffer cannot be achieved on arterial or collector roadways (see TAC GDG Ch. 7, pg. 69 and BCAT F-12 and Figure F-67). Also see BCAT, Section E15 Table E-20 for lateral buffer guidance in constrained environments. Barrier type should follow TAC GDG Table 5.7.1, based on type and speed of adjacent motor vehicle travel lane. Note a curb without a minimum lateral offset or physical barrier is not advised (see TAC Ch. 7, pg. 77).</p>					
Unseparated from vehicle traffic					
<p>Neighbourhood Street Bikeway or Shared Roadway:</p> <p>Bikes and motor vehicles share the roadway, which provides a continuous corridor of suitable operating conditions for people cycling, including limiting exposure to motor vehicle traffic. Can include a variety of roadways including local roads, alleys and service roads.</p>	<p>Width: Varies by road type. See Notes field. Posted Speed: 0-30km/h Volume: $\leq 1,000$ ADT</p>	<p>Width: Varies by road type. See Notes field. Posted Speed: 0-30km/h Volume: $\leq 2,000$ ADT</p>	<p>Width: Varies by road type Posted Speed: 0-50 km/h Volume: $\leq 3,000$ ADT OR Posted Speed: 0-30 km/h & Collector</p>	<p>Width: Varies by road type Posted Speed: 0-50 km/h Volume: ≤ 6000 ADT OR Posted Speed: 0-30 km/h & Arterial</p>	<p>Width: Varies by road type Posted Speed: 51+ km/h OR Volume: >6000</p>
<p>NOTES: Traffic diversion can include, but not limited to, such treatments as directional and median barriers, raised crossings, and bicycle permeable humps and chicanes. All such, facilities should include shared lane markings to indicate the potential presence and positioning of people cycling. Local governments are <i>recommended</i> to limit posted speeds to 30 km/h on all Neighbourhood Street Bikeways and Shared Roadways.</p> <p>Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan. For recommended road widths for residential street bikeways, see TAC GDG Ch. 5 S.5.3.2.1 and BCAT D19 & 20.</p>					
<p>Bike Lane</p> <p>On-road facility adjacent to a curb or a parking lane and delineated from motor vehicles with paint markings.</p>	<p>Never</p>	<p>Width: 1.7-2.4m Posted Speed: 0-50 km/h Volume: $\leq 4,000$ ADT Absence of curbside parking.</p>	<p>Width: 1.5-1.6m Posted Speed: 0-50 km/h Volume: N/A Curbside parking permitted.</p>	<p>Posted Speed: 51-70 km/h Volume: N/A Absence of curbside parking.</p>	<p>Posted Speed: 71+ km/h OR Posted Speed: 51-70 km/h & curbside parking Volume: N/A</p>
<p>NOTES: If parking present or speeds/ volumes might exceed limits or over 1,500 people cycling per day, separated bikeway recommended.</p> <p>Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan.</p>					

Type *	Class A	Class B	Class C	Class D	Class E
<p>Bike Accessible Shoulder Signed and marked, paved area with no curb, located to the right of roadway's general purpose travel lanes, and separated from general purpose lanes by white edge line or painted buffer. Usually in rural areas. May be shared with pedestrians.</p>	<p>Never</p>	<p>Width: 1.8-2.4m Posted Speed: 0-50 km/h Volume: ≤4,000 ADT Parking NOT permitted outside shoulder.</p>	<p>Width: 1.5-1.7m Posted Speed: <60km/h & Parking permitted outside shoulder OR 51-60 km/h & Parking permitted outside shoulder</p>	<p>Posted Speed: ≤60 51-90 km/h Volume: N/A Parking NOT permitted outside shoulder.</p>	<p>Posted Speed: 61-90 km/h & parking permitted outside shoulder OR Posted Speed: 90+ km/h</p>
<p>NOTES: Parking not permitted in bikeway. If speeds/ volumes exceed limits, or over 1,500 people cycling per day separated bikeway recommended. Width for buffered facility: 2.4-3.5 m total, bike lane 1.8-2.4 m</p>					

* In all cases pavement markings (bicycle stencils) and signage are necessary at regular intervals and should be placed at a distance of 20 to 30 m in advance of, and following each intersection and other decision points, or every 400 m when intersections are not present.

NOTES:

- Class A:** Designed toward the practical and absolute upper limit of the design domain and intended to comfortably accommodate higher volumes of users, including for example passing movements and side-by-side cycling.
- Class B:** Includes dimensions that sit between lower practical and practical upper limits for the dimensions of bikeways. These facilities may not be intended to accommodate passing movements or side-by-side cycling. Agencies implementing such facilities should check with TAC GDG guidance if passing movements or side by side cycling is intended.
- Class C:** These facilities are intended to accommodate lower volumes of cyclists and tend toward the lower practical and absolute lower limits of cycling infrastructure. Such facilities will tend to accommodate single file cycling but are not intended to accommodate passing movements or side-by-side cycling.
- Class D:** These facilities are intended to accommodate low volumes of cyclists and are at or below absolute lower limits of the design domain. These facilities provide basic accommodation of cyclists operating in single file and exhibit deficiencies including, but not limited to deficient signage and pavement markings, higher speed and higher volume motor vehicle traffic on adjacent facilities, and/or motor vehicle parking permitted in close proximity to cyclists.
- Class E:** These facilities do not meet the absolute lower limit of the design domain and even experienced cyclists should use such facilities with caution. Such facilities tend to have a combination of deficiencies including for example, a lack of signage and pavement markings, higher speed and higher volume motor vehicle traffic on adjacent facilities, and/or motor vehicle parking permitted in close proximity to cyclists.

Comfort: ■ Green = Comfortable for "Most", ■ Yellow = Comfortable for "Some", ■ Orange = Comfortable for "Few", ■ Red = Comfortable for "Very Few"

Volume Assumptions: Local (or equivalent) = 2000, Collector (or equivalent) = 4000, Arterial (or equivalent) = 6000

DISCLAIMER:

The Bikeway Classification System (BCS) has been carefully and collaboratively developed by TransLink, together with local stakeholders, and the Class A details/criteria included meet or exceed comparable best practice standards set out in the Transportation Association of Canada's 2017 Geometric Design Guide and Ministry of Transportation and Infrastructure's 2019 BC Active Transportation Design Guide. The BCS is intended to serve as a guide to assist practitioners. TransLink may use the BCS as part of TransLink's eligibility criteria for certain TransLink funding programs; however, the BCS does not establish mandatory standards or requirements of any kind. Transportation design professionals implementing active transportation projects in their communities are solely responsible for all design decisions and will need to make their own decisions/determinations by applying sound professional judgement and considering the unique context of each project.