Appendix A: What We Heard Report

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Executive Summary

The City of Abbotsford, City of Chilliwack, and the Fraser Valley Regional District (FVRD) are collaborating to develop a Zero Emissions Mobility Strategy (the Strategy) for the Fraser Valley which will serve as a roadmap for transitioning to a cleaner, low-carbon transportation system. The Strategy focuses primarily on expanding light-duty EVs and electric micro-mobility options, building on prior regional initiatives including FVRD's Regional Growth Strategy and BC Hydro's EV Readiness Program.

As part of this project, the project team facilitated two rounds of community and interest group engagement to inform the draft goal areas presented in this summary: the first to identify opportunities and barriers, and the second to gather feedback on proposed directions.

The engagement activities are shown in Figure 1 below.

Figure 1: Engagement by the Numbers

Round 1 Engagement

Between January 15 and 27, 2026 the project team held four focus group meetings with the organizations and governments that expressed interest through a targeted survey. In total, there was representation from 12 organizations/governments during the meetings, including:

- The City of Abbotsford
- The City of Chilliwack
- The Fraser Valley Regional District
- Harrison Hot Springs
- Evolve E-Bike and E-Scooter Share
- Evo Car Share
- BC Trucking Association
- Modo
- Evo Car Share
- Fraser Valley Climate Action
- Fraser Basin Council
- Plug-in BC

Across multiple meetings, participants emphasized the need for better regional coordination. Inconsistent bylaws, permitting processes, data collection, and infrastructure approaches create confusion for residents and barriers for developers and service providers. A coordinated regional framework would provide clarity and streamline implementation.

Grid capacity and early utility coordination were also highlighted as key considerations. Electrical constraints, peak demand charges, and long approval timelines can delay projects and increase costs.

Fragmented charging networks with inconsistent payment systems, poor uptime, and vendor failures create frustrating user experiences. Some participants called for government-mandated interoperability and payment compatibility to ensure charging works seamlessly.

Lastly, participants noted that infrastructure alone will not drive change. Better local data is needed to guide decisions and track progress, and stronger outreach and leadership are required to address misconceptions and encourage adoption. A combination of supply-side investment and demand-side measures will be necessary to support a meaningful shift toward zero emissions mobility.

Round 2 Engagement

The second round of engagement for the Strategy was hosted throughout March of 2026. Round 2 presented an opportunity for First Nations, key interest groups, and the public to provide feedback on the draft goal areas and actions in the strategy document. There were two main forms of engagement:

1. The project team held three focus group meetings with interested organizations and governments. In total, there was representation from 10 organizations/governments including:
   - The City of Abbotsford
   - The City of Chilliwack
   - The Fraser Valley Regional District
   - Fortis BC
   - Evolve E-Bike and E-Scooter Share
   - Fraser Basin Council
   - Plug-in BC
   - Movement YVR
   - Fraser Health Authority
   - Chilliwack Rotary Climate Group
2. The community survey was live between March 3 and March 16, 2026. It received 27 responses.
3. The project team met with Sumas First Nation on April 22, 2026.
4. Lastly, written responses were received from:
   - Fraser Valley Climate Action
   - Modo

A high-level summary of the feedback received for each goal area is listed in Table 1 below.

Table 1: High-summary overview

Goal Areas	Key comments
Goal Area 1: Expand Publicly Available EV Charging	• There is support for expanding public EV charging, especially fast chargers and clustered charging hubs with multiple plug types. Participants support infrastructure that is reliable, well maintained, and not dependent on a single private provider. • Key concerns include vandalism, slow repairs, locked or paid parking locations, and the loss of charging infrastructure when private operators withdraw.
Goal Area 2: Accelerate Light-Duty EV Adoption	• Feedback generally supports efforts to increase EV adoption. However, fully electric car-share models were seen as challenging in rural areas. • Respondents emphasized the importance of education (for both consumers and dealerships) and noted that

	reducing overall vehicle use through mode shift may deliver greater emissions reductions.
Goal Area 3: Expand Home and Workplace Charging	• While improving access to home charging is supported, the proposed requirement for 100% EV-ready new buildings raised concerns about impacts on housing affordability. • Respondents called for clearer definitions of "EV-ready," streamlined permitting and fees, and municipal support for stratas and multi-unit buildings.
Goal Area 4: Lead by Example	• Participants supported municipal leadership on fleet electrification. Some suggested prioritizing EV use where it delivers the greatest benefit, such as longer-distance or highway travel.
Goal Area 5: Support the Decarbonization of Medium- and Heavy-Duty Fleets	• Feedback supports a flexible approach that considers electric vehicles alongside other low-carbon options where full electrification may not yet be feasible. • Respondents identified opportunities to collaborate more closely with utilities, tie fleet requirements to business permits, and position the Fraser Valley as a regional hub for electric freight and truck charging.
Goal Area 6: Support Active Transportation and E-Micromobility	• Active transportation and e-micromobility generated the most feedback. While many see e-bikes and e-scooters as effective low-emissions options, there is broad agreement that protected, connected active transportation infrastructure should be prioritized. • Respondents called for clearer provincial rules, updated local bylaws, and stronger public education before expanding shared e-scooter programs. • Improved transit frequency and coverage were also identified as an effective way to reduce emissions and support mode shift.

Introduction

The City of Abbotsford, City of Chilliwack, and the Fraser Valley Regional District (FVRD) are collaborating to develop a Zero Emissions Mobility Strategy (Strategy) for the Fraser Valley. This Strategy will serve as a roadmap for transitioning to a cleaner, low-carbon transportation system, helping reduce greenhouse gas emissions across the region.

The goal of the Strategy is to promote cleaner, more sustainable ways of travel. The Strategy focuses on expanding the use of light-duty EVs (e.g., passenger cars, small trucks) and electric micro-mobility options. While regional transit and heavy-duty vehicles (like trucks and school buses) have been considered at a high level, they are not the primary focus of this project. This work builds on several previous regional initiatives, including FVRD's Regional Growth Strategy, BC Hydro's EV Readiness Program, and municipal transportation and climate action/energy plans.

Engagement Round 1 and 2

Two rounds of community engagement were conducted to inform the Strategy. The first round sought to identify key opportunities and barriers to zero emissions mobility across the Fraser Valley. The second round presented draft goal areas and associated actions to interest groups and the broader community, gathering feedback to refine the proposed directions.

The draft goal areas are outlined in Figure 2 below:

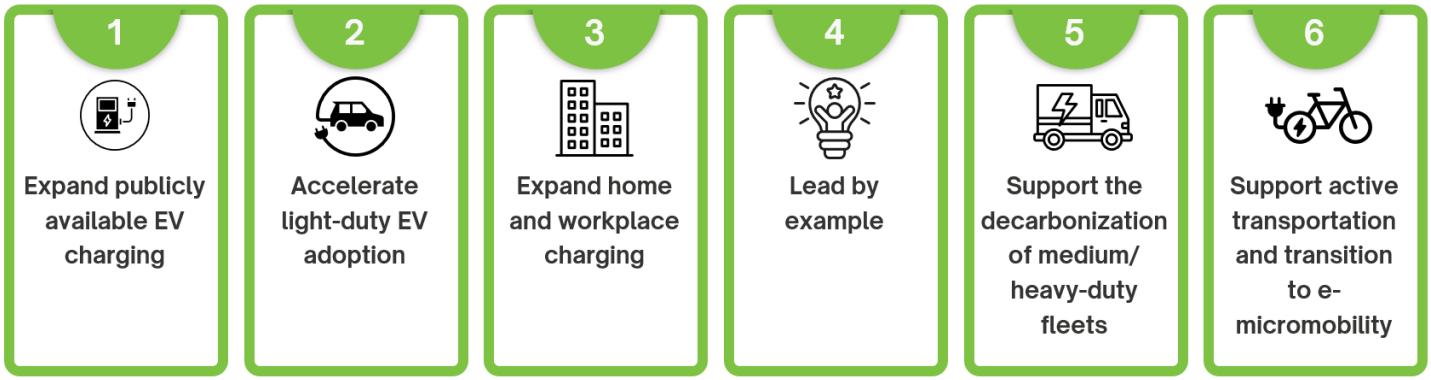


Figure 2: Draft goal areas

What We Heard: Round 1 Engagement

What We Heard: Round 1 Interest Group Meetings

Throughout Round 1 engagement, the project team facilitated four interest group meetings with representatives from the transportation sector, climate and environmental organizations, and local governments. Attendees were identified through an outreach survey distributed to more than 50 organizations and governments, and were selected based on their expressed interest in participating. The meetings presented an opportunity to dive deeper into the high-level themes that emerged through the survey.

Each meeting began with an overview presentation outlining the purpose of the Strategy, the project goals, time timelines, initial findings from the technical analysis, and a summary of what was heard through the outreach survey.

The rest of the session was dedicated to facilitated discussion. Participants were asked to share their perspectives on data sharing, collaboration, policy alignment, potential impacts, and outreach. The questions were adapted for each group based on their fields.

In total, representatives from 12 local organizations and governments participated. This section summarizes the key themes and insights that emerged.

Meeting 1: Transportation

On January 15, 2026, from 1:00 pm – 2:00 pm the project team met with representatives from the transportation sector. Representatives from the following organizations joined the meeting:

- BCAA
    - Evolve E-Bike and E-Scooter Share
    - Evo Car Share
- BC Trucking Association
- Modo
- Evo Car Share

Key themes from this meeting have been summarized below.

Policy Consistency and Regional Coordination

- Maintain consistent policies across the entire region, varying rules at municipal borders create confusion for users (umbrella policies should align across all municipalities)

- Mixed jurisdiction roads (Ministry of Transportation and Transit (MOTT)--controlled vs. city-controlled) create communication challenges about where devices can operate
- Distinguish between regulating personal devices vs. shared services; currently regulated shared programs with restrictions (no-ride zones, slow zones) while private users remain unregulated with no enforcement

Charging Infrastructure Design

- Design universal charging applications (public EV infrastructure should support multiple uses and current installations often can't support additional applications other than cars)
- Provide shared/public access to charging for municipal and car share fleets
- Free-floating car share needs extensive charging network (hundreds of vehicles nightly); requires multi-pronged approach beyond developer-provided chargers; consider commercial charging partnerships
- Emerging micromobility technology focuses on contactless/automated charging stations to reduce operational overhead (currently requires staff swapping batteries, cleaning, rebalancing); shift toward hands-off maintenance

Medium And Heavy-duty Fleet Electrification

- Start with small vehicles (sprinter vans, Class 3-5) not large trucks as there is limited technology available for heavy-duty
- Focus on local fleets running local routes with depot charging and don't invest in opportunistic public charging for commercial vehicles (it's not viable for foreseeable future)
- Barriers include electrical infrastructure, grid distribution, and parking; Class 8 truck charging equivalent to 18 homes creates concentration vs. distribution questions for grid planning
- Work thoughtfully with manufacturers on applications (range varies dramatically by vehicle configuration- BC's first electric ambulance gets only 110 km)

Effective Outreach Approaches

- Municipal staff and council should adopt e-mobility services themselves (strongest validation comes from actual use by community leaders)
- User testimonials are the most effective (hearing from real people using EVs, e-scooters, car share far more successful than government/manufacturer campaigns or advertising)

- Target early adopters and low-barrier demographics first rather than trying to shift everyone's behavior simultaneously
- There are education gaps for e-scooter and e-bike safety rules; unclear who owns responsibility for public education on device usage; RCMP and police feel under-resourced for enforcement (e.g., helmet laws not enforced despite being mandatory)
    - Minimum age requirements (16+), riding under the influence, and helmet laws require stronger public awareness campaigns; lots of misinformation and confusion exists

Data and Analytics

- Shared micromobility and car share fleets generate massive amounts of data; municipalities need compatible platforms and dashboards to help interpret raw data into meaningful reports like heat maps or route analysis
- Desired data tracking includes car ownership trends (households reducing from multiple cars to one or zero), infrastructure gaps where safe connections are missing, and impact metrics (community outcomes) rather than detailed operational metrics

Utility Coordination and Grid Capacity

- Work closely with utilities early on mapping and distribution planning; commercial fleet operators face grid capacity limitations even when facilities have adequate electrical service (example: 8 MW facility unable to access full capacity due to upstream distribution constraints)
- Early coordination with utilities is needed to identify where grid capacity for charging densification exists (this is new territory for utilities as well)

Planning and Development

- Think holistically about mobility hubs bringing together car share, micromobility, and transit rather than treating each as separate space demand
- Leverage levers to advance electrified shared mobility by expanding supply (e.g., EV charging and shared vehicles, which are easier to integrate in buildings than at the curb) and strengthening demand-side measures through TDM

Meeting 2: Climate Action

On January 13 and January 27, 2026, the project team met with representatives from the climate and environmental sector. Representatives from the following organizations joined the meeting:

- Fraser Valley Climate Association
- Fraser Basin Council
- Plug-in BC

Key themes from this meeting have been summarized below.

Policy and Regulatory Recommendations

- Desire for consistent EV-ready bylaws and streamlined permitting processes for all local governments in the District
    - Some buildings are labeled "EV-ready" because they include a charging outlet, but lack the dedicated electrical capacity to actually support charging

> "A lot of times developers put an electrical port at the parking lot, but when you try to install a level 2 charging station there, there's not enough power draw for it."

- Retrofitting existing buildings for EV charging requires significant coordination with utilities and can be costly, particularly when electrical rooms, transformers, or parking layouts were not designed with charging in mind
- Provincial land-use policies push transit-oriented development while promoting universal EV adoption, creating unclear investment priorities (leadership is needed to articulate coherent strategy balancing both visions)
- 100% EV-ready requirements in multi-family buildings may conflict with affordability goals; data gap on EV adoption patterns across income levels suggests need for differentiated requirements based on housing type and resident demographics
- Municipalities should advocate for national zero-emission targets, legal right to install residential chargers without strata votes, reduced tolls/ferry fares/parking costs for EVs, preferential parking locations, waived registration fees, and the replication of successful international models

Active Transportation and Street Design

- Municipalities treat active transportation as amenities rather than essential infrastructure, the funding is sporadic and project-based

    - Need shift to proactive, connected investment comparable to road building instead of waiting for private development
- Prioritize protected bike lanes around elementary schools
- "Build it and they will come"- infrastructure must precede usage; physical separation (not just paint) is necessary for safety and ridership
- Legalize e-scooters in bike lanes, decriminalize sidewalk cycling where road infrastructure is unsafe, prioritize snow clearing for vulnerable road users before cars and require bike racks at all destinations and covered parking at transit hubs

Outreach

- Proactive messaging is needed to address common misconceptions about EVs (range, temperature, etc.); road shows have proven effective in the past
- Pilot projects (e.g., delivery trucks, box trucks, fleet vehicles) demonstrate that many vehicles could already be electrified today based on predictable routes and existing technology

Charging Infrastructure and Network Reliability

- Fragmented charging networks create a poor user experience due to unreliable equipment, inconsistent payment systems/vendors
- Government should mandate universal payment compatibility across all networks to treat charging as essential public utility rather than private profit-driven service with vendor lock-in
- Infrastructure suffers from poor uptime, slow repairs (months of downtime), lack of redundancy, and inadequate monitoring

Equity

- Small municipal incentives ($500) could nudge residents toward EVs; EVs offer long term savings through eliminated fuel and maintenance costs despite higher upfront price (BC EV adoption declined when provincial incentives ended, demonstrating effectiveness)
- EVs support economic equity by eliminating ongoing "oil and gas tax" for daily travel

Data

- Lack of current, localized transportation and emissions data prevents evidence-based decision-making; need for real-time data collection and public dashboards showing progress

Funding Shifts

- Several EV-related programs will end in the next few years (BC Hydro's EV Readiness program, Fleet Charging Program) but additional funding may commence this spring for medium-heavy duty vehicles

Meeting 3: Local Government

On January 22, 2026, from 1:00 pm – 2:30 pm the project team met with representatives from local governments, including:

- The City of Abbotsford
- The City of Chilliwack
- The Fraser Valley Regional District
- Harrison Hot Springs

Key themes from this meeting have been summarized below.

Costs and Funding

- Desire for more clarity on costs (how much upfront cost would be covered by the public sector vs the private sector)
- BC Hydro applies maximum usage charges across the entire day based on peak demand periods, resulting in higher electricity costs for charging infrastructure operators
- Support for increasing charging opportunities in the public right of way, but concerns about cost implications
- Recent changes to federal funding programs require substantial municipal co-investment (e.g., 22 Level 2 chargers or 2 Level 3 chargers, totaling $500,000-$1,000,000) to qualify for grants; this threshold creates barriers for municipalities seeking modest, demand-responsive expansion rather than large-scale buildouts

Electrical Infrastructure and Grid Capacity

- Installing DC fast chargers in public parking areas requires significantly higher electrical capacity than Level 1 or Level 2 systems
    - Desire to fully understand the demand on the grid from charging
- Planning requires alignment between BC Hydro's forecasted electrical output increases and the combined infrastructure needs across Fraser Valley municipalities and neighboring regions to ensure adequate power supply for projected EV charging demand

    - Electrical system upgrades face significant delays due to BC Hydro approval processes
- Electoral areas face significant barriers to EV charging expansion due to inadequate existing electrical infrastructure that cannot support increased development loads
- Current charging system reports do not capture whether vehicles are occupying spaces without plugging in
- Training opportunities are needed for staff to ensure that when making decisions, staff fully understand the technical implications of charging infrastructure and electricity load

Development and Planning

- Municipalities vary in their EV-ready requirements for new developments
- Municipalities are reconsidering EV-ready parking requirements in the context of housing needs reports and affordable housing strategies, with potential for reduced parking ratios in affordable housing developments
- 100% EV-ready requirements in multi-family buildings sometimes conflict with affordable housing goals, with developers and housing advocates identifying this as a barrier to delivering below-market units
- Conflict exists between provincial goals of promoting transit ridership and policies supporting universal EV adoption

Partnerships and Collaboration

- BC Hydro operates an extensive EV charger program and has expressed interest in partnering on fast charging hubs with 6-8 charging stalls per location
- There is an expectation that energy providers and private sector operators will fill the charging infrastructure gap as gas revenues decline and market demand for EV charging grows, rather than municipalities bearing primary responsibility through development requirements
    - Some municipalities view public EV chargers (at parks, parking lots, etc.) as supplementary infrastructure to help drivers reach home, not as primary charging solutions

Safety and Building Codes

- Current building codes lack sufficient requirements for the placement of energy storage systems, creating potential risks to building safety and emergency egress routes; regulations have not yet been updated to ensure these systems are located appropriately and safely

- Critical need for public education on emergency procedures at EV charging locations, including clear protocols for alerting emergency services and evacuation procedures
- Concerns about responding to electrical emergencies at charging sites; NFPA 855 is currently the only industry standard addressing life safety components, and should be integrated into planning and installation processes

Broader Transportation Planning

- Desire to include tourism considerations in the analysis (travel to and from Harrison Lake increases substantially in the warmer months)
- Following initial council approval for EV chargers, municipalities are pivoting investment toward multi-use pathway infrastructure; in land-constrained communities, multi-use paths offer higher value by creating connected active transportation networks

What We Heard: Round 2 Engagement

What We Heard: Semá:th First Nation

The project team met with representatives from Semá:th on April 22, 2026 from 10:00 am – 11:00 am. Those in attendance expressed interest in exploring zero emissions mobility opportunities/chargers for members on a smaller scale. It was also noted that there would be direct benefits for Semá:th if a larger number of gas vehicles could be switched to zero emissions, both on-reserve and in the broader region. The air pollution from growing vehicle congestion on the highway can impact Elders ability to spend time outside. Safety was another key priority, especially as it pertains to youth using e-micromobility. There is a desire to confirm rules and regulations and ensure enforcement to keep youth safe on these devices.

What We Heard Round 2 Interest Group Meetings and Written Feedback

Throughout Round 2 engagement, the project team facilitated three interest group meetings with representatives from Fortis BC, the transportation sector, climate and environmental organizations, and local governments.

Similar to Round 1, each meeting began with an overview presentation outlining the purpose of the Strategy, the project goals, and the project timelines. The team then presented the draft goal areas and associated actions, inviting feedback and questions for each.

In total, representatives from 10 local organizations and governments participated. The organizations are listed in Table 2 below.

Table 2: Interest Group Meetings

Meeting	Date and Time	Attendees
Meeting 1: Utilities [1]	March 23, 2026 10:30 am - Noon	• Fortis BC
Meeting 2: Climate and Transportation	March 23, 2026 1:00 pm – 2:30 pm	• Chilliwack Rotary Climate Group • Community Futures South Fraser • Fraser Health Authority • Movement YVR • BCAA

[1] BC Hydro was contacted but unable to attend the utilities session.

		• Plug In BC/Fraser Basin Council
Meeting 3: Local Governments	March 24, 2026 10:30 am – Noon	• City of Abbotsford • City of Chilliwack • FVRD

Two organizations (Fraser Valley Climate Action and Modo) were unable to attend the meetings, but provided feedback by way of written comments. Those comments have been integrated into this section, which summarizes the key themes and insights that emerged.

Goal Area 1: Expand Publicly Available EV Charging

- Desire for "charging parks" or "energy stations" with a diverse range of chargers independent of a single company (to reduce impacts if private companies such as Chevron remove infrastructure)
    - Vandalism and maintenance of charging infrastructure is a concern; some private companies are slow to repair stations or do not plan to repair stations after they have been damaged
- Consider framing "gas stations" as "energy stations" across the region
- Ensure after-hours accessibility of existing charging sites (e.g., locked lots such as the Bateman Lot are currently inaccessible)
- The proposed 80 km distance between charges along highways may not be relevant for the Fraser Valley region where cities are less than 80 km apart

Goal Area 2: Accelerate Light-duty EV adoption

- EV dealership staff are often poorly informed on key topics like battery recyclability; there may be value in including dealer education as part of the broader EV adoption strategy
    - Support automotive shops through the EV transition by encouraging (and perhaps incentivizing) at least one technician per shop to receive EV training
- Concerns with pursuing a fully electric car-share program across the FVRD
    - A blanket push toward fully electric fleets can be counterproductive from both an environmental and economic perspective
        - Most emission reductions come from mode shift and reduced private car use, not full electrification
        - Forcing full electrification can reduce usage and membership, ultimately leading to worse overall emissions outcomes
        - The required infrastructure investment and operational impacts can significantly strain providers and limit expansion

- Consider using licensing conditions to require transportation network companies (Uber, Lyft, taxis) to meet zero emissions fleet targets, with compliance tied to license renewal

Goal Area 3: Expand Home and Workplace Charging

- Concerns over anticipated pushback from developers and local government Council members for targeting 100% EV ready buildings
    - Impacts on costs in a constrained market (new buildings can have over 150 parking spaces)
    - Impedes the delivery of affordable housing units
    - Not aligned with new (much lower) provincial and federal targets
    - Ongoing pushback on Chilliwack's target of 25% already
- Desire to include more detail on what 100% EV-ready residential buildings include
- Provide direct city support to stratas, condos, and multi-unit housing (don't rely on residents to navigate provincial information alone)
- Streamline permitting related to EVs (auto-approvals subject to certain restrictions, waiving fees)
- Prioritize home charging in detached housing as the long-term goal, with interim public charging to support residents during installation

Goal Area 4: Lead by Example

- Consider prioritizing vehicles travelling longer distances along the highway instead of short-distance trips due to the resources required to create and recycle battery systems
- Support encouraging EV adoption by Council members and staff (community leaders)
    - Council and staff EV adoption could be supported by a coach to ease the transition, while allowing them to experience firsthand the barriers, such as charging accessibility, contractor upselling, and home electrical limitations, with a staff analyst documenting those challenges

Goal Area 5: Support the Decarbonization of Medium and Heavy-duty Fleets

- Opportunities to collaborate with Fortis for the study and exploration of alternative, low-carbon fuel options
- Fleet electrification requirements could be tied directly to business permits, with an escalating annual zero emissions vehicle percentage required to operate in the region

- Explore attracting Canada's first mega-charger installation to the region, positioning the Fraser Valley as a hub for electric truck adoption across the Lower Mainland

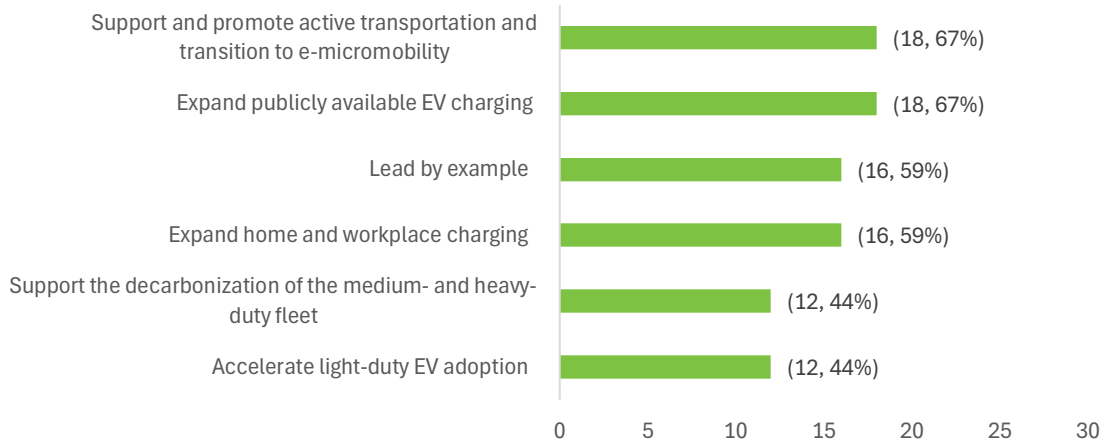
Goal Area 6: Support Active Transportation and Transition to E-Micromobility

- Driver education is needed when it comes to e-micromobility safety
- AAA routes are critical; e-scooters and e-bikes are a highly effective, low-impact mobility option but safety risks cost the healthcare system around $26,000 per injury
    - Painting lines on roads are not sufficient; cities must advance active transportation users through intentional, well-designed infrastructure
- Support for the safety-focused framing around e-mobility and micromobility; many community members have had unsafe encounters with e-scooters
- Desire for more clarity from higher levels of government on rules and regulations for e-micromobility; the current strategy puts the onus on local governments
    - Questions include where the devices belong, where the parking should be located, and what regulations need to be followed
    - Bylaws are needed to clarify e-micromobility operations
- Fully legalizing e-micromobility is a necessary prerequisite before any ride-share scooter program could be introduced
- Greater potential to reduce emissions through transit investment by improving frequency and service levels
    - Adding more buses to the road reduces overall vehicle trips and better transit coverage is what ultimately enables people to go car-free

What We Heard: Round 2 Community Survey

Between March 3 and March 16, 2026, the FVRD hosted a community survey on the Have Your Say platform. The survey was open to all community members and received a total of 27 responses. Respondents were asked to evaluate how well the proposed actions would achieve each of the six draft goal areas, and were invited to provide open-ended comments identifying gaps, concerns, and additional recommendations. The findings summarized below reflect the range of perspectives shared by respondents but are not representative of the community as a whole.

1. **Which of the following goal areas would you like to comment on? Select all that apply.**



Total responses: 27

Respondents were asked which goal areas they would like to provide feedback on. The highest number of respondents provided feedback on active transportation and e-micromobility (67%) and public EV charging (67%).

Expand publicly available EV Charging

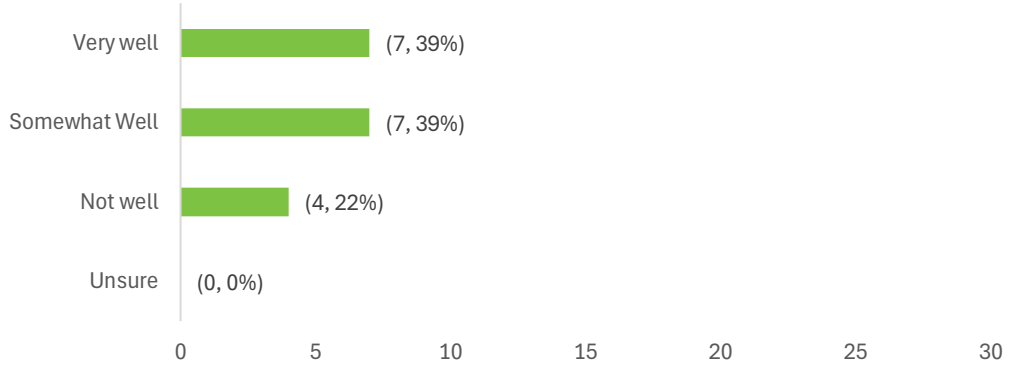
Target: Expand publicly available charging to 2,350 Level 2 and 200 DC Fast Chargers by 2030 DC Fast chargers by 2030 to support approximately 60,000 EVs in the region.

The Strategy identifies the following actions to expand the publicly available charging network:

- Build more public EV chargers so there are 2,350 Level 2 and 200 fast chargers by 2030
- Add EV chargers at common destinations like workplaces, highways, malls, parking garages, tourist destinations, airports, schools, recreation centres, and hospitals
- Focus new chargers in city centres, transit hubs, and apartment-heavy neighbourhoods, while applying an equity lens
- In rural areas, place chargers at least every 80 km along major roads
- Create accessible charging hubs with many chargers and different plug types, easy to use, and consistent across the network

- Work with local governments and transit agencies to explore regional EV charging coverage for buses

2. **How well do you think these actions will help achieve the goal of expanding the publicly available charging network?**



Total responses: 18

Of the respondents, 78% felt these actions would achieve the goal area "well" or "very well", while the remaining 22% selected “not well”.

3. **Is there anything missing in expanding publicly available EV charging?**

In total, there were 11 comments left for this question. They include:

- Install chargers near more amenities (3) / services and businesses (1) / apartment-heavy neighbourhoods (1)
- Install chargers that work for all EV models (2) / create charger clusters for shared EVs (1)
- Install chargers near tourist destinations (2)
- Install more fast chargers overall (2)
- Opposed to the Strategy, EV adoption should not be a local government priority (2)
- Concerns with charging removal in Chilliwack (1)
- Consider danger of EV charger fires (1)
- Mandate EV bus charging stations (1)
- Ensure the charging fee is appropriate (1)
- Reconsider chargers in paid parking locations (not accessible) (1)

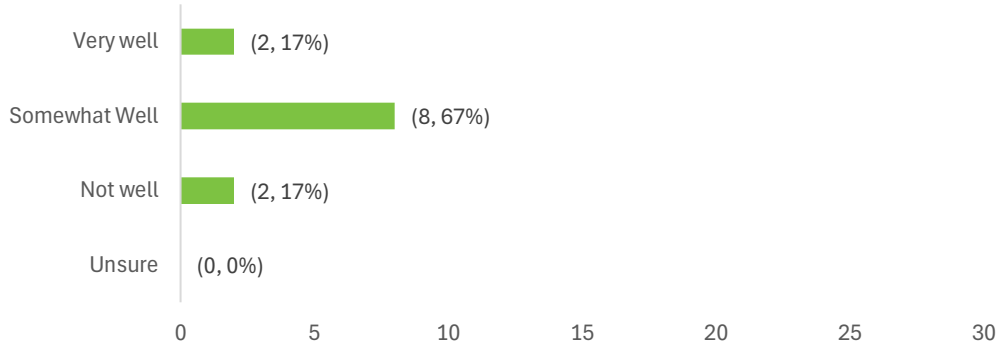
Accelerate light-duty EV adoption

Target: Support a target for 20% of light-duty vehicles registered in the region to be Zero Emission Vehicles by 2030.

The Strategy identifies the following actions to accelerate light-duty EV adoption:

- Encourage utilities and governments to continue and improve incentives and policies that support EVs, charging stations and battery manufacturing
- Create policies that support a fully electric car-share program across the FVRD
- Work with nearby regions to align EV goals and policies so rules are consistent across borders

4. **How well do you think these actions will help achieve the goal of accelerating light-duty EV adoption?**



Total responses: 12

Of the respondents, 84% felt these actions would achieve the goal area "very well" (17%) or "somewhat well" (67%), while 17% felt the actions would not achieve the goal.

5. **Is there anything missing to accelerate light-duty EV adoption?**

In total, there were six comments left for this question. They include:

- Introduce financial penalties for fossil fuel consumption (1)
- Host targeted education and community outreach events (1)
- Substantial subsidies are required to make EVs financially accessible to the average consumer; car-sharing programs are not a viable solution for rural areas (1)
- Expand fast-charging infrastructure in Harrison Hot Springs (1)
- Financial incentives should be administered by senior levels of government rather than municipalities (1)
- Develop policies that support fully electric vehicle car-share programs across the FVRD (1)

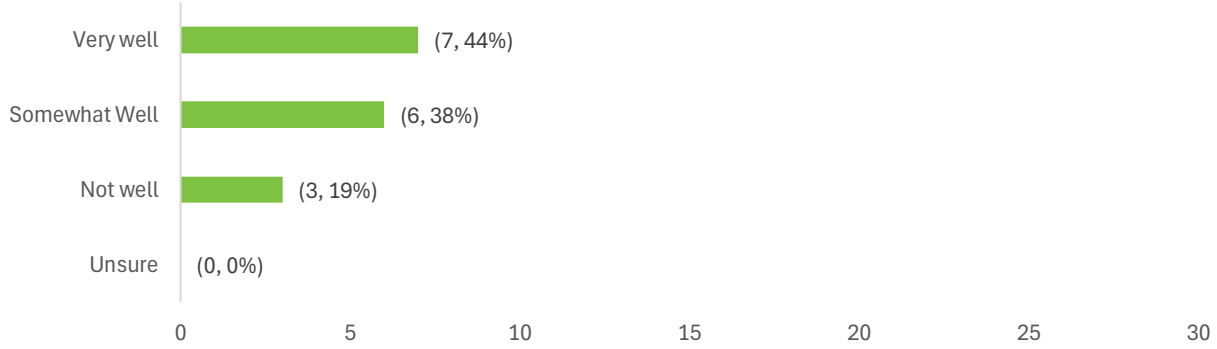
Expand home and workplace charging

Target: Ensure all new residential buildings are 100% EV Ready. The Strategy identifies the following actions to expand home and workplace charging:

- Update bylaws to require EV-ready parking in new buildings
- Promote incentives for adding EV chargers to existing homes and apartments, and explore municipal top-ups
- Create a central EV webpage with information on home charging, apartment retrofits, and incentives

- Support building owners with guidance on electrical upgrades for EV charging
- Study EV options for medium- and heavy-duty farm vehicles and equipment

6. **How well do you think these actions will help achieve the goal of expanding home and workplace charging?**



Total responses: 16

Of the respondents, 82% felt these actions would achieve the goal area "very well" or "somewhat well" (44% and 38% respectively), while 19% selected “not well”.

7. **Is there anything missing to expand home and workplace charging?**

In total, there were five comments left for this question. They include:

- Mandate stratas to install EV charging infrastructure (1)
- Ensure safety procedures are clearly communicated to all relevant user groups (1)
- Electrical systems in many Fraser Valley homes are insufficient to support EV chargers; the cost of electrical upgrades remains prohibitive for many residents (1)
- Electric tractors are not yet a commercially feasible option; the Fraser Valley region could leverage its influence to pressure tractor manufacturers toward developing cleaner alternatives (1)
- Address potential resistance from residents who do not support personal electric vehicles or the installation of home charging infrastructure (1)

Lead by example

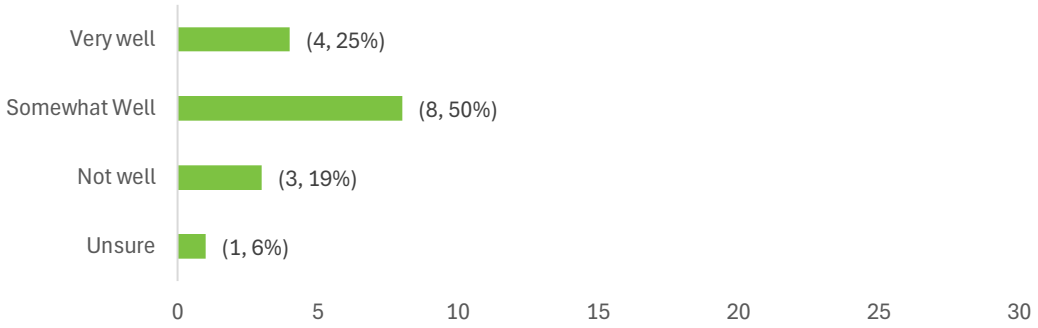
Target: Achieve 100% zero emissions fleet vehicles by 2040 or sooner.

The Strategy identifies the following actions to lead by example:

- Update the municipal Zero-Emission Fleet and Infrastructure Plan

- Prioritize installing EV chargers in municipal parking and explore EV options for municipal and commercial uses (delivery trucks, fleet vehicles, etc.)
- Study all municipal buildings to find the best places for EV chargers and plan ahead by installing larger electrical conduits for future expansion

8. How well do you think these actions will help achieve the goal of leading by example?



Total responses: 16

Three quarters (75%) of respondents thought these actions would achieve the goal area, with 25% selecting "very well" and 50% "somewhat well". Nineteen percent (19%) indicated "not well" and 6% were unsure.

9. Is there anything missing to lead by example?

In total, there were seven comments left for this question. They include:

- Cease procurement of fossil fuel vehicles and divest existing fossil fuel vehicles from the municipal fleet (1)
- Conduct an infrastructure assessment across all municipal locations and utilize available incentive programs such as BC Hydro's Fleet Electrification Program (1)
- Ensure safety procedures are clearly communicated to all relevant user groups (1)
- Address constraints related to power supply capacity (1)
- Require that all municipal operations equipment be fully electric (1)
- Implement a moratorium on the development of new gas stations and establish solutions for the repurposing of redundant gas station sites (1)

- Consult with the fleet manager and team to evaluate the performance of current electric vehicles in municipal operations (1)

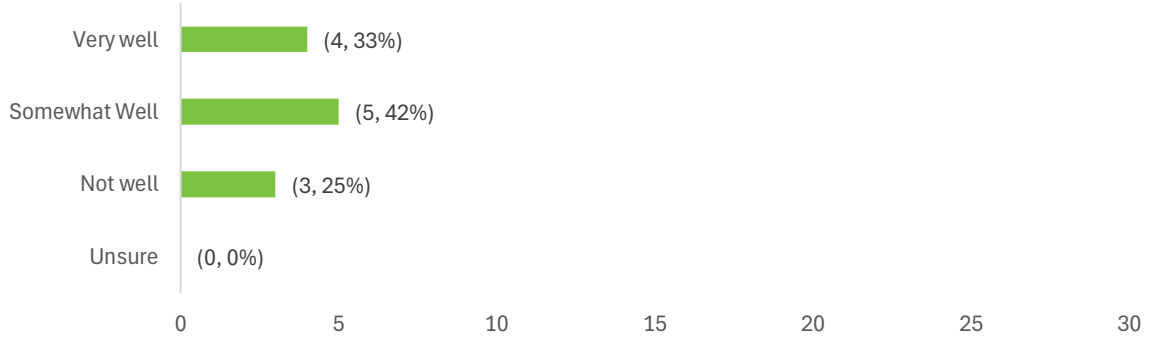
Support the decarbonization of the medium- and heavy-duty fleet

Target: Understand and support the electrification of medium- and heavy-duty fleets, while evaluating complementary low-carbon fuel and technology options.

The Strategy identifies the following actions to support the decarbonization of the medium- and heavy-duty fleet:

- Explore the feasibility, cost and environmental impacts of electrifying medium- and heavy-duty vehicles (like school buses and garbage trucks)
- Support the private sector in building charging hubs for freight trucks in cities and along rural routes
- Encourage school boards and fleet operators to switch school buses to electric
- Explore alternative technologies and other low-carbon options, like hydrogen and renewable natural gas trucks, to support cleaner medium- and heavy-duty fleets
- Work with schools and training institutions to train mechanics and technicians for EV and fleet electrification

10. How well do you think these actions will help achieve the goal of supporting the decarbonization of the medium- and heavy-duty fleet?



Total responses: 12

Most survey respondents (75%) felt these actions would achieve the goal area "very well" (33%) or "somewhat well" (42%), while the remaining 25% selected “not well”.

11. Is there anything missing support decarbonization of medium- and heavy-duty fleets?

In total, there were four comments left for this question. They include:

- Implement a balanced approach of both penalties and incentives to drive EV adoption (1)
- Commission air quality studies to demonstrate the environmental benefits of electric vehicles (1)
- Mandate the transition to electric school buses (1)
- Explore compressed natural gas (CNG) and renewable natural gas (RNG) as valid bridge technologies; battery electric vehicles (BEV) may not be feasible for certain routes and climate conditions (1)

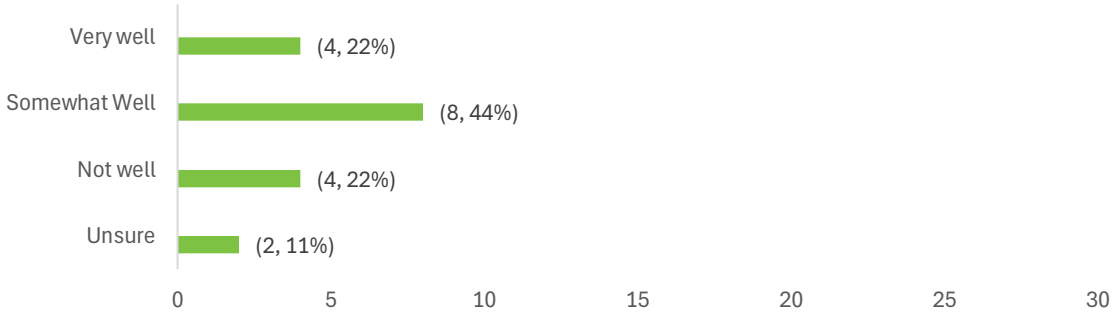
Support and promote active transportation and transition to e-micromobility

Target: Develop a safe and connected active transportation network, including e-micromobility.

The Strategy identifies the following actions to promote active transportation and transition to e-micromobility:

- Improve education, signs, and wayfinding so everyone knows how to safely use micromobility
- Build All Ages and Abilities (AAA) networks for both walking and cycling, along with e-mobility hubs with outdoor charging
- Require secure storage and charging for e-micromobility in new apartment buildings
- Expand shared e-mobility rental programs and explore pilot projects (i.e., Kick Scooter Program)
- Advocate for BC Transit design guidelines that better support safe use of e-mobility
- Work with Fire Prevention Officers to educate the public on safe battery use, charging, and disposal for micromobility devices
- Explore how e-micromobility can support rural and remote travel, especially for first- and last-mile trips

12. How well do you think these actions will help achieve the goal of supporting and promoting active transportation and the transition to e-micromobility?



Total responses: 18

More than half (66%) of respondents felt these actions would achieve the goal area "very well" (22%) or "somewhat well" (44%). The remaining 33% selected “not well” while 11% were unsure.

13. Is there anything missing to support and promote active transportation and e-micro-mobility?

- Prioritize protected lanes and connected trail networks as a foundational first step over vehicle infrastructure (2)
- Require secure, weather-protected storage for bicycles and e-mobility devices in downtown areas and develop strategies to address device theft (2)
- Prohibit e-scooters and e-bikes from local roadways and sidewalks given speed-related safety risks to pedestrians and cyclists; where permitted, mandatory licensing and insurance must apply to both device and operator (2)
- Plan for the mobility needs of seniors, including mobility scooter users, active transportation is not an option especially in the rain or dark (2)
- Zero emissions mobility should not be a priority for the region (2)
- Advocate with the Ministry of Transportation and Transit for dedicated bike lanes along regional highways, including a Highway 1 to Agassiz–Harrison Hot Springs, and ensure active transportation infrastructure is incorporated into future road resurfacing projects (1)
- Advocate for BC Transit design guidelines that accommodate e-mobility and pursue active transportation funding through BC Transit; note this requires advocacy with the Ministry of Transportation and Transit (1)
- Review and update bylaw frameworks to appropriately regulate e-micromobility (1)

- Ensure regulatory frameworks and public education address battery safety and disposal (1)

Additional Comments

14. Is there anything else you'd like to share about zero emissions mobility in the Fraser Valley?

In total, there were 16 comments left for this question. Comments are themed and summarized below.

Active transportation infrastructure

- Active transportation should be made more convenient than private vehicle use to encourage mode shift (1)
- Slower streets and restrictions on larger personal vehicles would have short-term emissions impacts while supporting the transition to zero emissions and encouraging active transportation for shorter trips (1)
- Secure bike parking and other supporting infrastructure are needed to enable active transportation (1)
- Road signage reminding drivers to maintain adequate clearance for active transportation users should be increased (1)

Public transit

- Expansion of public bus and train options is essential to reducing private vehicle use and should be a central pillar of any zero emissions strategy (2)
- Regular electric public transportation across the FVRD would significantly contribute to the 2040 zero emissions goal (1)
- Reliable public transit remains unavailable for many residents who depend on personal gas vehicles for commuting (1)

EV technology

- Fossil fuel vehicle manufacturers are slowing EV innovation; increased competition, including from international manufacturers, is needed to accelerate adoption (1)
- Climate and range limitations of battery electric vehicles should be carefully evaluated for longer rural routes and highway travel (1)

- The Fraser Valley's agricultural waste streams make it well-positioned for renewable natural gas production, which should be considered as part of the regional strategy (1)
- Affordability and cold-weather performance of EVs remain significant barriers, particularly for seniors and those with mobility limitations (1)

Scope

- Opposition to the direction of the plan, citing concerns around cost, environmental impact of battery production, grid capacity, and the relevance of the strategy to smaller rural communities such as Harrison Hot Springs and Agassiz (2)
- EV and zero emissions infrastructure should not be funded through municipal tax dollars (2)
- The plan's scope may exceed local government authority and should be appropriately focused (1)
- Concerns regarding electricity grid capacity to support mass EV adoption must be addressed (1)

Conclusion

The two rounds of engagement conducted for the Strategy reflect a strong regional interest in transitioning to zero emissions transportation.

The City of Abbotsford, City of Chilliwack, and the FVRD are grateful to all those who contributed their time and perspectives throughout this process. The insights gathered through engagement will continue to inform the Strategy, helping to ensure it reflects the needs, priorities, and aspirations of Fraser Valley residents.

As the Strategy moves toward implementation, ongoing collaboration and community involvement will remain essential to achieving a cleaner, low-carbon transportation future for the region.

Appendix B: Demographics and Current State of Mobility

B - Demographics and Current State of Mobility

B.1 - Fraser Valley Current and Projected Population and Employment

Based on demographics provided by TransLink's Regional Transportation Model, in 2023 the Fraser Valley Regional District was home to 343,295 residents, with Abbotsford and Chilliwack accounting for 78% of the total regional population base. 142,711 total jobs were situated in the region, 85% of which were in Abbotsford and Chilliwack. Current (2023) population and job distribution by municipality is noted in **Table B - 1**.

Table B - 1: 2023 FVRD Population and Job Distribution by Municipality (% of Total FVRD[2]

	Abbotsford	Chilliwack	Mission	Hope	Kent	Harrison Hot Springs	Electoral Areas	Total FVRD
Population	166,128 (48%)	101,778 (30%)	46,011 (13%)	7,050 (2%)	6,486 (2%)	1,991 (1%)	13,851 (4%)	343,295 (100%)
Jobs	76,782 (54%)	42,139 (30%)	13,971 (10%)	2,349 (2%)	3,396 (2%)	882 (1%)	3,192 (2%)	142,711 (100%)

Current population and employment density is displayed in **Figure B - 1** and **Figure B - 2**. Furthermore **Table B - 2** and **Figure B - 3** provides an overview of the population and employment growth through to 2053. Population and jobs are focused in core built-up areas of the region within close proximity to either Highway 1 or Highway 7. Within Abbotsford and Chilliwack built-up areas, population and job densities are highest at 30 people and 8 jobs per hectare, and 24 people and 6 jobs per hectare, respectively.

[2] Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP.

Figure B - 1: Fraser Valley Regional District 2023 Population Density

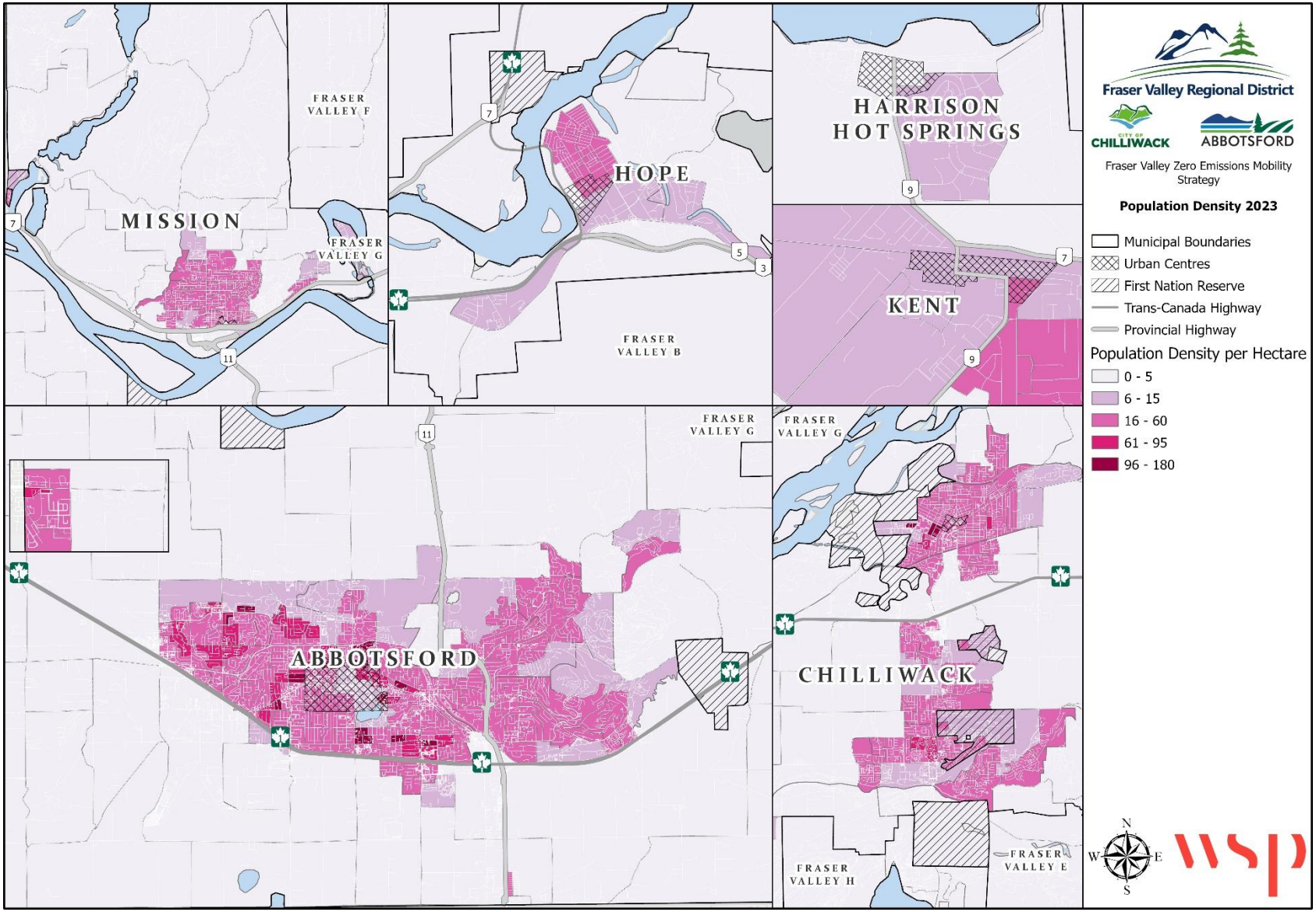


Figure B - 2: Fraser Valley Regional District 2023 Employment Density

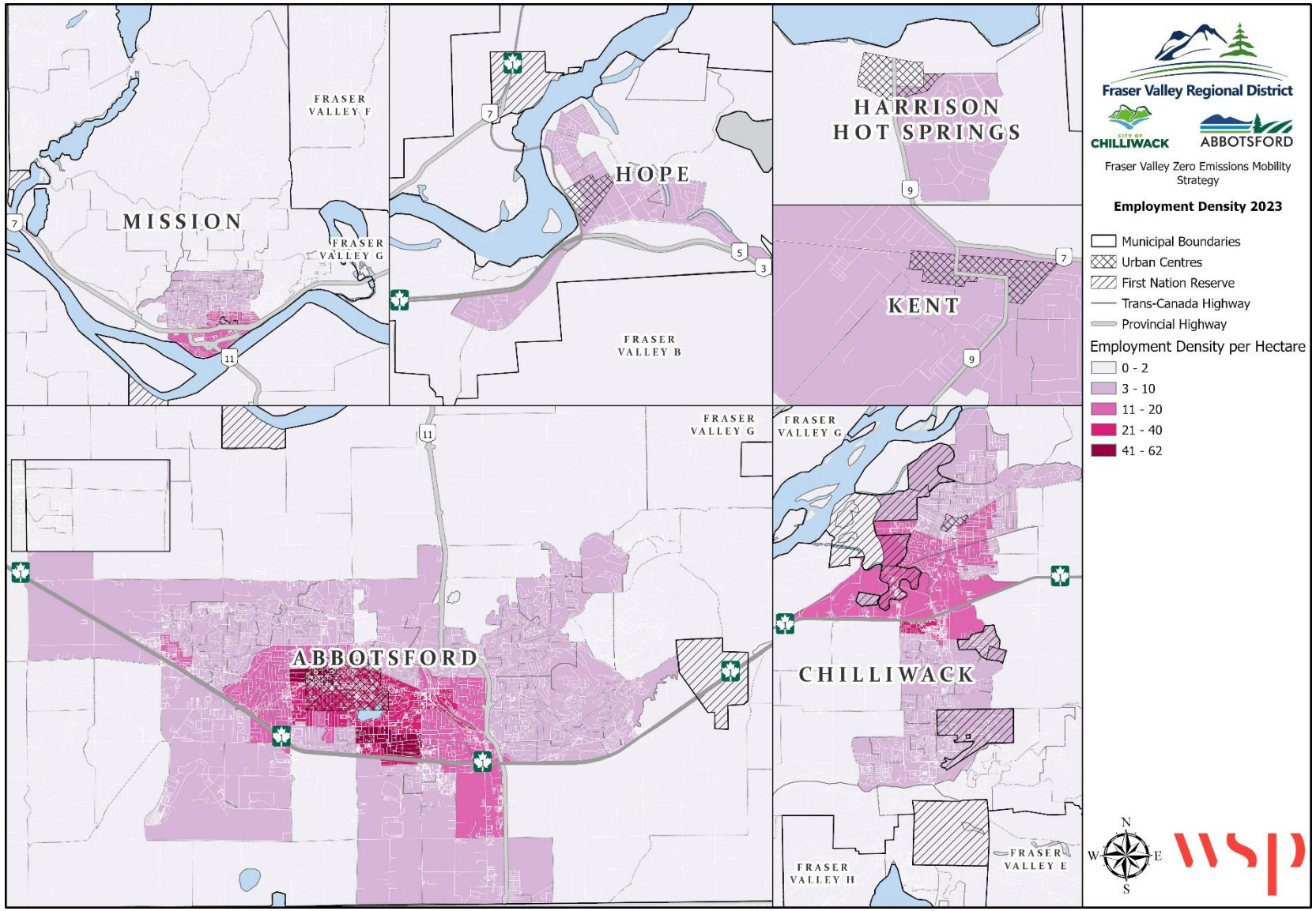
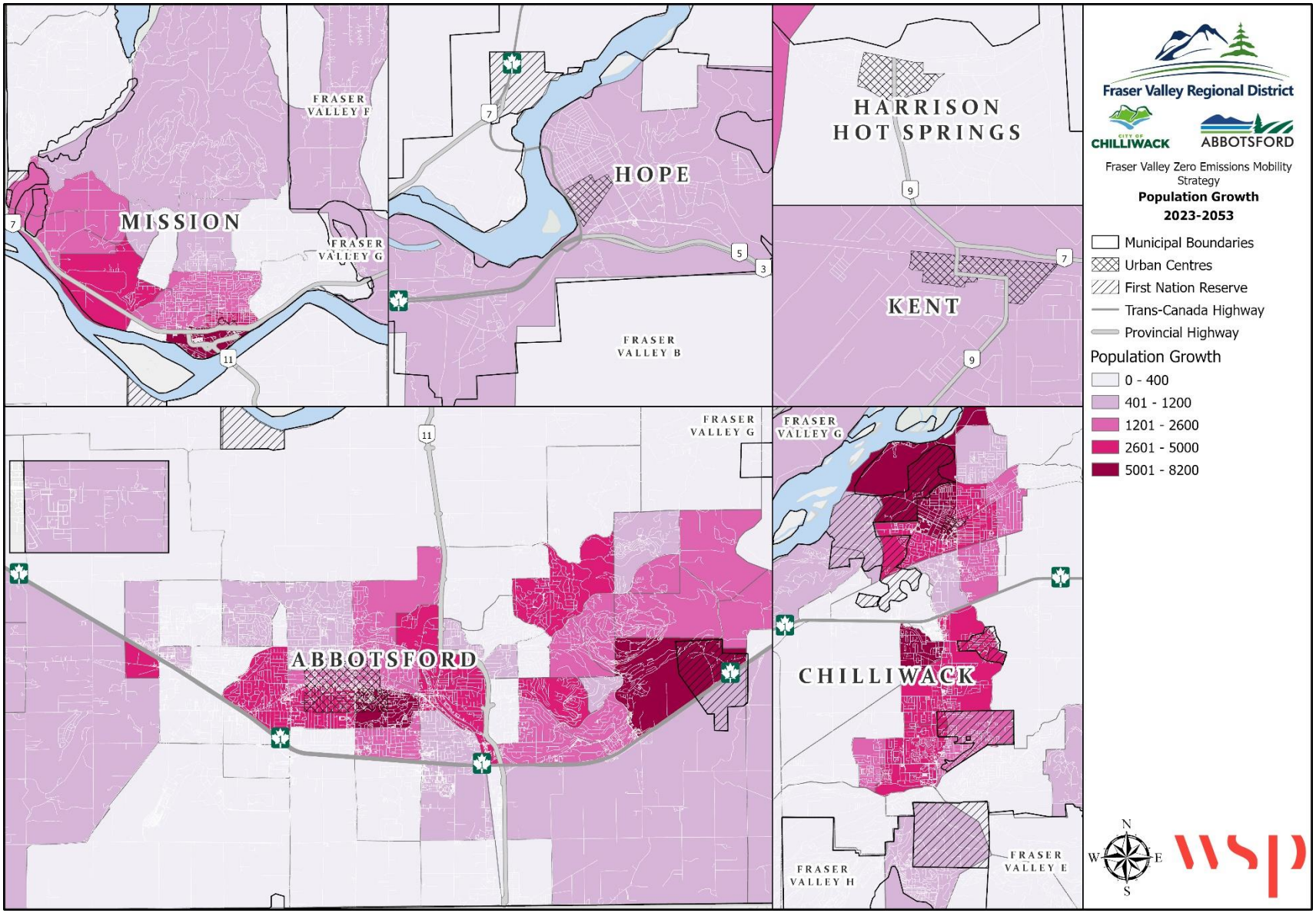


Table B - 2: Overview of Population Growth and Employment Growth[3]

		Abbotsford	Chilliwack	Mission	Hope	Kent	Harrison Hot Springs	Electoral Areas	Total FVRD
Population	Growth (2023-2053)	+ 86,600	+ 54,400	+ 22,700	+ 1,200	+ 800	+ 300	+ 4,000	+ 170,000
	Growth % (2023-2053)	+52%	+53%	+49%	+18%	+13%	+13%	+28%	+50%
	2053 Projection	252,800	156,200	68,700	7,700	7,000	2,200	18,700	513,300
Jobs	Growth (2023-2053)	+ 46,000	+ 25,900	+ 8,000	+ 500	+ 700	+200	+ 1,400	+ 83,000
	Growth % (2023-2053)	+ 60%	+ 62%	+ 57%	+ 21%	+ 19%	+ 17%	+43%	+ 58%
	2053 Projection	123,000	68,100	22,000	2,800	4,100	1,000	4,600	225,300

[3] Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP.

Figure B - 3: Population Growth



B.2 - Fraser Valley Travel Snapshot

Trip Generation and Mode Share

In 2023, approximately 803,900 total trips were made each weekday across the Fraser Valley Regional District, with Abbotsford and Chilliwack accounting for 79% of total daily trips (**Table B - 3**). Trip generation rates are relatively consistent across municipalities, averaging about 2.3 trips per capita per day, and are comparable to those observed in neighbouring Metro Vancouver.

Table B - 3: Weekday Trip Generation in the Fraser Valley Regional District[4]

	Abbotsford	Chilliwack	Mission	Hope	Kent	Harrison Hot Springs	Electoral Areas	Total FVRD
Total Weekday Trips	396,600	240,000	106,400	14,000	13,400	4,300	29,200	803,900
Weekday Trip Rate (trips per capita)	2.38	2.36	2.31	1.98	2.06	2.15	2.10	2.33

Table B - 4 summarizes mode shares by municipality, electoral areas and the FVRD as a whole. On a typical weekday, approximately 715,700 personal vehicle trips occur within the FVRD. Travel by automobile, including both drivers and passengers, represents 89% of all person trips (ranging between 87% and 100% of total trips by jurisdiction). In 2023, 11% of trips were completed by sustainable transportation modes including walking, cycling, and public transit, which is significantly lower than neighbouring Metro Vancouver's average of 27%. Active transportation and transit mode shares are higher in Abbotsford and Chilliwack than in more rural areas of the FVRD.

In Abbotsford, Chilliwack and Mission, walking trips occur four to seven times more frequently than transit trips, although these municipalities have higher transit mode shares than the region's smaller, more rural communities, where transit use and access is minimal. While municipalities are working to increase sustainable travel through increased investment in public transit and active transportation strategies, private vehicle use is expected to remain high in the Fraser Valley

[4] Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP. Results presented reflect FVRD trips only, unless otherwise noted.

over the medium- to long-term. As a result, accelerating the shift to electric vehicles and other zero-emission modes will be essential to reducing transportation related GHG emissions.

Table B - 4: Weekday Trips (Mode Share) by Mode (x1,000 trips)[5]

Travel Mode	Abbotsford	Chilliwack	Mission	Hope	Kent	Harrison Hot Springs	Electoral Areas	Total FVRD
Auto	346.8 (87%)	212.6 (89%)	96.0 (90%)	14.0 (100%)	13.2 (98%)	4.2 (98%)	29.0 (100%)	715.7 (89%)
Transit	8.7 (2%)	4.2 (2%)	1.3 (1%)	0.0 (0%)	0.0 (0%)	0.0 (0%)	0.0 (0%)	14.2 (2%)
Walk	37.6 (9%)	21.4 (9%)	8.4 (8%)	0.0 (0%)	0.2 (2%)	0.1 (1%)	0.1 (0%)	67.8 (8%)
Bike	3.5 (1%)	1.7 (1%)	0.7 (1%)	0.0 (0%)	0.1 (0%)	0.0 (0%)	0.0 (0%)	6.1 (1%)
TOTAL[6]	396.6	240.0	106.4	14.0	13.4	4.3	29.2	803.8

Travel Patterns and Average Trip Lengths

In 2023, approximately 6.3M vehicle-km were travelled each weekday in the FVRD, or about 18.3 vehicle-km per capita per day. Vehicle-kilometres travelled (VKT) were calculated for vehicle trips originating within the Fraser Valley, regardless of trip destination. Abbotsford accounts for 48% of the vehicle kms driven daily in the Fraser Valley at 3.0 million VKT each day, nearly double that of Chilliwack's 1.6 million (26%) daily VKT. Mission, Hope, Kent, Harrison Hot Springs and the electoral areas collectively account for the remaining 26% of VKTs driven daily as shown in **Figure B - 4**.

[5] Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP.
[6] Totals may not sum to exactly 100% due to rounding of individual values

Figure B - 4: Average Weekday Vehicle-KMs Travelled in the Fraser Valley[7]

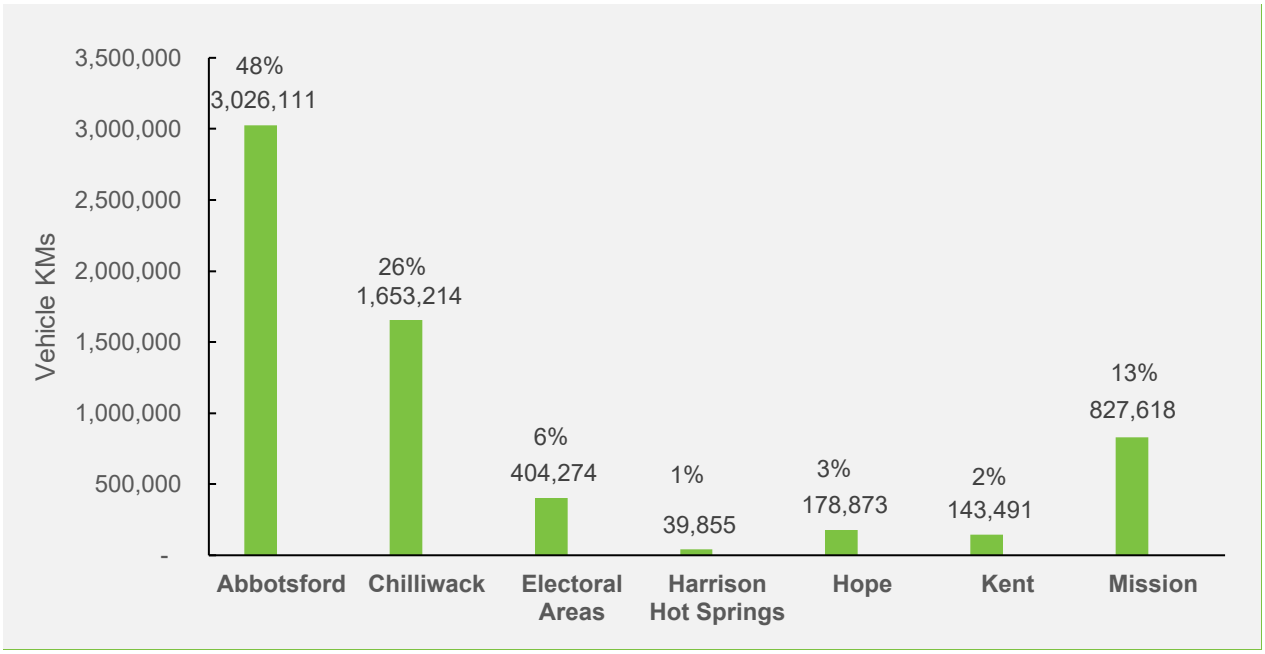


Table B - 5 presents average trip lengths by mode for each municipality. Average weekday trip lengths across all modes were noted at 9.3 km. Average trip lengths vary by mode and location (with smaller municipalities and electoral areas recording longer trips than Chilliwack and Abbotsford). According to the Regional Transportation Model, while auto trips in Abbotsford and Chilliwack averaged near 10 km, transit trips averaged between 4.7 and 5.2 km for those municipalities, reflecting a hyper-localized role for transit. In contrast to Abbotsford and Chilliwack, Mission's average transit trip length is 16.1 km, a pattern that reflects the role of the West Coast Express in supporting longer-distance commuter travel. Average walking and bike trip lengths were noted at 1.3 km and 3.9 km, respectively.

These factors indicate that in urban areas, trips are generally shorter and exhibit a lower probability of range risk for EVs or shared fleets, with a higher proportion of trips beginning and ending in proximity to charging stations. Rural contexts (i.e. electoral areas), where overall VKTs are lower than in the cities, but per-trip distances are longer, present different operational challenges. Vehicles are more likely to start or end far from a publicly-available charger, and longer distances driven in these areas can create range anxiety issues for EV operators. Publicly-available charger access in these contexts may even go beyond convenience and be essential to enable certain trips, necessitating public chargers along key highways or in rural community nodes.

[7]Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP.

Table B - 5: Table 5: 2023 Average Trip Length by Mode (km)[8]

	Abbotsford	Chilliwack	Mission	Hope	Kent	Harrison Hot Springs	Electoral Areas	FVRD
Auto Driver	10.9	10.0	12.5	16.7	13.3	13.4	23.5	11.4
Auto Passenger	9.6	8.9	10.8	16.2	12.3	12.2	22.3	10.1
Transit	5.2	4.7	16.1	-	-	-	-	5.9
Walk	1.2	1.4	1.5	-	3.5	3.5	2.7	1.3
Bike	3.9	3.8	3.3	6.1	4.1	4.8	6.6	3.9
AVERAGE	**8.7**	**8.2**	**10.0**	**16.2**	**12.1**	**12.0**	**22.2**	**9.3**

Inter-Regional Trips and Tourism in the Fraser Valley Regional District

The FVRD is served by the Trans-Canada Highway (Highway 1) corridor, connecting Metro Vancouver to the BC interior and the rest of the country. The Trans-Canada Highway serves as the region's primary through-corridor, with secondary provincial highways such as Highway 7, Highway 9, Highway 11, Highway 5 and Highway 3, serving a range of intra- and inter-regional trips as well as international trips via the Sumas border crossing.

Table B - 6 outlines the annual average daily traffic counts collected at permanent count sites, illustrating high travel volumes moving through major corridors in the Fraser Valley. Traffic volumes range from moderate flows on rural highways to more than 80,000 vehicles per day on the busiest Highway 1 segments, highlighting the importance of these routes as gateways for regional mobility and tourism.

The concentration of vehicle activity along these corridors indicates that inter-regional travel plays and will continue to play a significant role in shaping future charging and infrastructure needs. Corridors experiencing steady year-round traffic, such as those connecting Mission, Abbotsford and Chilliwack, represent strategic locations for current and future on-route chargers to support travel demand.

[8] Data from TransLink's Regional Transportation Model and Trip Diary dataset; outputs and analysis generated by WSP.

Table B - 6: Annual Average Daily Traffic Counts Along Key Tourism Corridors[9]

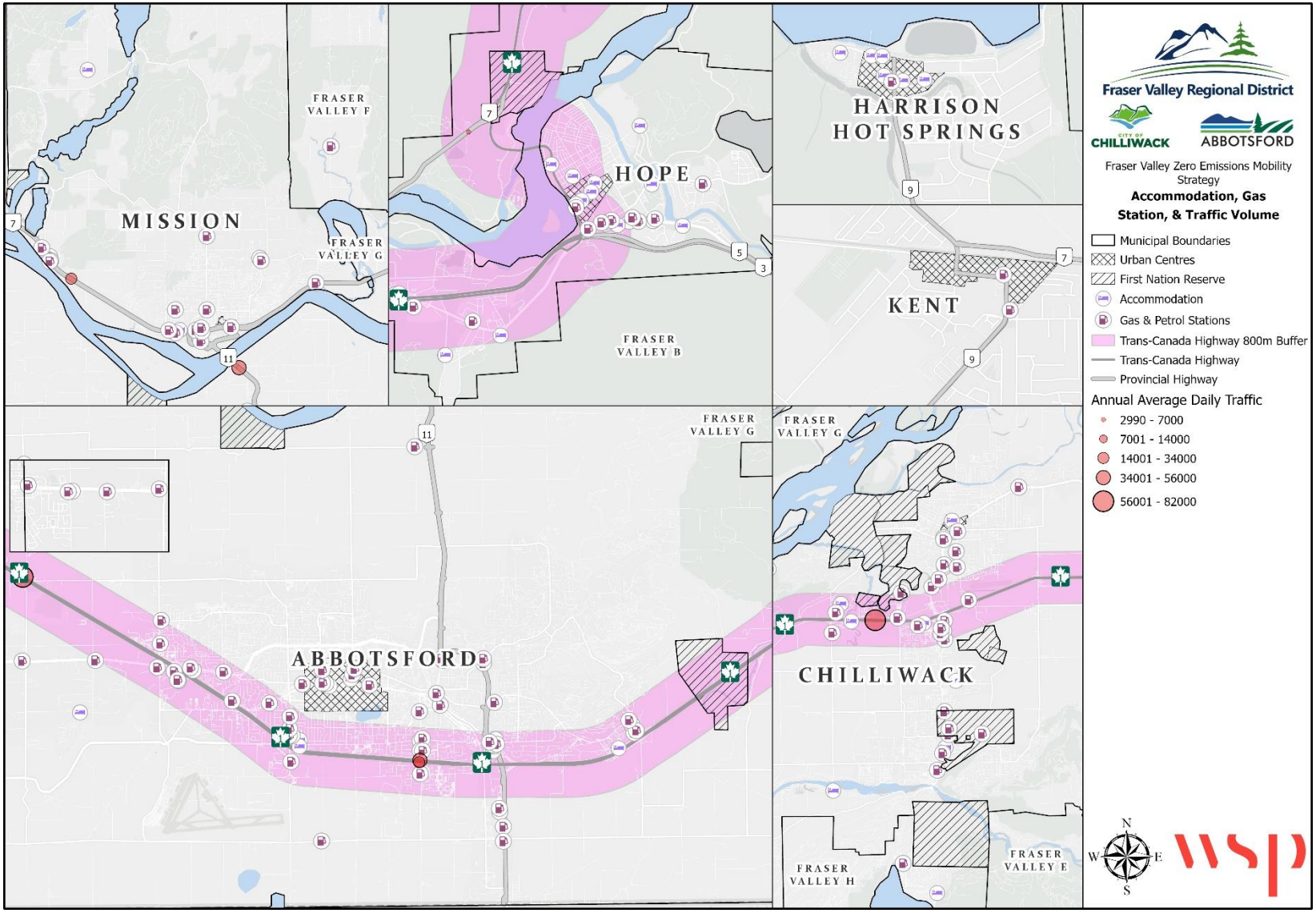
Description	Annual Average Daily Traffic (AADT)	Data Year
Route 1, just east of Bradner Road, Abbotsford	81,885	2024
Route 1, Eb, 0.5 km west of McCallum Road, Abbotsford	33,659	2025
Route 1, Wb, 0.5 km west of McCallum Road, Abbotsford	35,491	2023
Route 1, 1.3 km west of Vedder Road, Chilliwack	56,330	2025
Route 9, 0.6 km north of Old Yale Road, Rosedale	13,706	2025
Route 1, 20.2 km east of Route 9, west of Hope	21,358	2025
Route 5, 0.2 km north of Route 3, east of Hope	13,395	2024
Route 7, 5.0 km west of Route 1, Haige	2,990	2025
Route 11, 0.1 km south of Riverside Road, Mission	41,375	2025
Route 7, 0.1 km east of Hawkins Pickle Road, Dewdney	7,041	2024
Route 7, 5.2 km west of Route 11, Mission	25,576	2025

In addition, the Fraser Valley is a popular destination that attracts many visitors throughout the year. Destination BC lays out the province into six tourism regions. The Fraser Valley falls within the "Vancouver, Coast & Mountains" (VCM) region. As outlined by Destination BC in the VCM Regional Tourism Profile, the VCM accounted for 60% of the total provincial tourism business in 2023. Furthermore, Destination BC revealed that most visitors to the VCM in 2023 came from BC, Alberta and Ontario with BC residents contributing to 33% of the total nights spent in the region[10].

Figure B - 5 maps the distribution of tourist accommodations, gas stations and the region's major transportation corridors. The highest concentration of hotels are located along Highway 1, particularly in Abbotsford, Chilliwack and Hope, where hotels and motels cluster near interchanges, commercial areas, and key services. Additional accommodation clusters appear in Mission and Harrison Hot Springs.

[9] BC MoTT Traffic Data Program.
[10] https://www.destinationbc.ca/content/uploads/2025/04/Destination-BC-Regional-Profile-VCM-V7-FINAL.pdf

Figure B - 5: Distribution of Overnight Accommodation and Gas Stations in the Fraser Valley



B.3 - Electric Vehicles in the Fraser Valley Regional District

The Fraser Valley is highly reliant on personal vehicles, with approximately 89% of weekday trips made by private automobile and around 11% of trips taken by cycling, walking or public transit. This reflects the region's large geographic area, dispersed communities and longer average travel distances, which make driving the most practical option for many residents. As a result, transportation is a major source of GHG emissions in the region. While active transportation and transit improvements remain important, the greatest opportunity to reduce emissions in the near- to medium-term lies in transitioning the existing vehicle fleet from internal combustion engine (ICE) vehicles to zero-emission electric vehicles, allowing residents to maintain mobility while lowering emissions.

Federal and Provincial ZEV context

ZEVs provide a low-emission alternative to ICE vehicles, particularly in British Columbia where the electricity system is largely powered by renewable hydroelectric generation[11]. The total electricity generation in BC is composed of approximately 92.6% hydro-electric (42.4 TWh), 3.7% renewables (1.7 TWh), 3.7% fossil-fuel combustion (1.7 TWh)[12]. Because of this clean energy supply, switching from ICE vehicles to ZEV can substantially reduce emissions from road transportation and has become an important part of how municipalities work toward their climate targets.

British Columbia has been an early leader in ZEV adoption in North America and continues to be a leader in ZEV adoption in Canada. According to the Province's Zero-Emission Vehicles Update 2024, ZEVs accounted for a record 22.4% of new light-duty vehicle (LDV) sales in 2024, and nearly 195,000 ZEVs are now registered across the province. Provincial efforts to increase ZEV uptake include transitioning government fleets to ZEV and exploring new policies and programs to support continued adoption. Together, these trends highlight the growing role of ZEVs in reducing transportation emissions across British Columbia.

Across Canada, ZEVs now represent a growing share of new vehicle sales. According to Statistics Canada, approximately 13.8% of vehicles sold in 2024 was a ZEV[13]. While adoption rates vary by province, the national trend shows that ZEVs are becoming increasingly more common in the Canadian new vehicle market.

Fraser Valley Vehicle Ownership and Make-up

According to ICBC data, there were 242,600 light-duty vehicles registered in the Fraser Valley in 2024. This number represents both passenger and commercially-registered light-duty vehicles.

[11] https://www.bchydro.com/energy-in-bc/operations/generation.html
[12] https://publications.gc.ca/collections/collection_2025/eccc/En81-4-2023-3-eng.pdf
[13] https://www.statcan.gc.ca/o1/en/plus/7915-2024-one-seven-new-vehicles-sold-canada-were-zero-emission

ICBC registration data also provides information on vehicle types by municipality, which is summarized in **Table B - 7**. For this analysis, hybrid vehicles including conventional hybrids and plug-in hybrids are grouped with internal combustion engine (ICE) vehicles.

ZEVs essentially refer to battery electric vehicles (BEVs) only, as there are fewer than ten hydrogen fuel cell vehicles in the Fraser Valley.

Table B - 7: 2024 Vehicle Population by Propulsion Type[14]

	ICE Vehicles	Electric Vehicles	Percentage of Electric Vehicles	Total
Abbotsford	106,382	4,230	3.8%	110,612
Chilliwack	74,149	2,018	2.6%	76,167
Mission	32,574	938	2.8%	33,512
Kent	6,246	118	1.9%	6,364
Hope	4,555	63	1.4%	4,618
Harrison Hot Springs	2,833	58	2.0%	2,891
Unincorporated Areas	8,296	172	2.0%	8,468
Total	235,035	7,597	3.1%	242,632

ZEV adoption in the Fraser Valley generally reflects broader trends across BC. ICBC vehicle registration data for passenger vehicles from 2020 to 2024 show a steady increase in the share of ZEVs across most municipalities in the region, as illustrated in **Figure B - 6** and **Table B - 8**. Abbotsford leads the Fraser Valley in ZEV uptake, with ZEVs making up 4.6% of all registered vehicles in 2024, up from 1.2% in 2020.

The share of ZEVs among new vehicle sales peaked in 2023 before declining in 2024, falling below 2022 levels. This decline might be partially explained by the tightening of Provincial EV Rebates in 2024, a saturation in early adopters, the macroeconomic conditions (affordability) and a shift in consumer preference toward hybrid vehicles. Despite this slowdown in new ZEV purchases, the overall share of ZEVs in the vehicle fleet continues to rise. This is largely because vehicles retiring from the fleet are predominantly older, non-electric models, while most ZEVs added within the past 5 to 10 years remain in service.

[14] Data from ICBC Vehicle Population Dashboard (2024 passenger vehicles)

Figure B - 6: Historic EV Adoption Trends in the Fraser Valley (Passenger LDVs only)

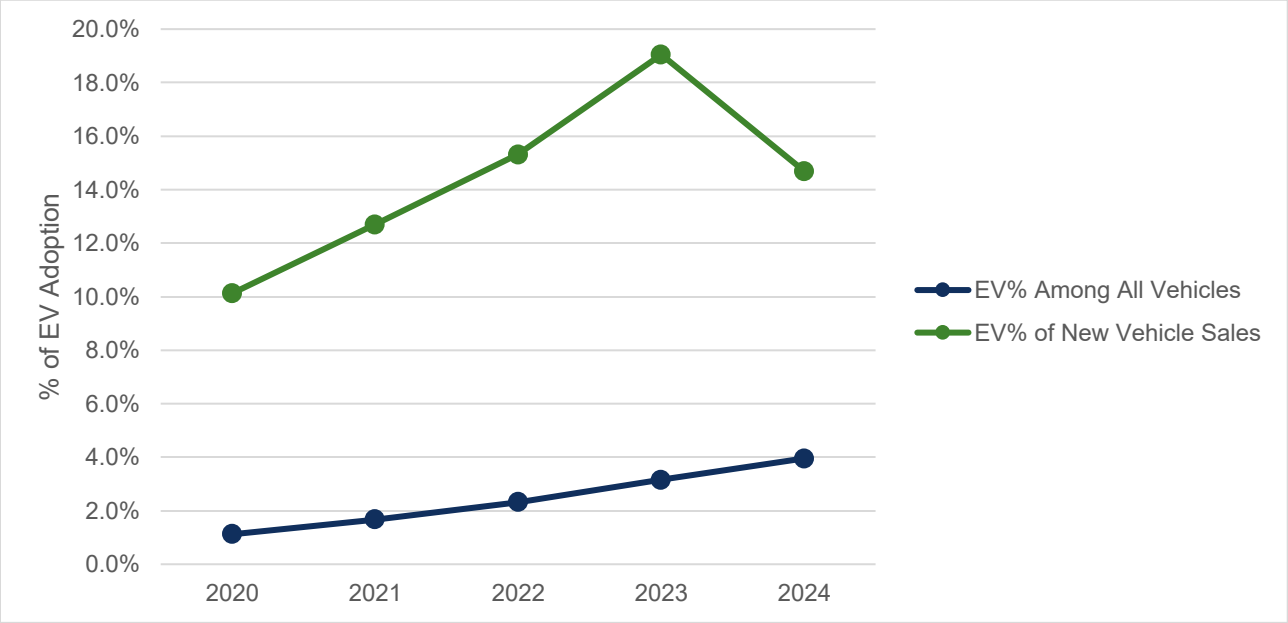


Table B - 8: Passenger LDV EV Adoption Trends in Fraser Valley Region (% of new and % of total)[15]

Town	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
	EV % of new vehicle sales					EV% of all registered vehicles				
Abbotsford	11.6%	15.5%	17.8%	21.6%	17.2%	1.2%	1.8%	2.6%	3.6%	4.6%
Chilliwack	7.2%	8.9%	12.1%	16.6%	12.4%	1.0%	1.5%	2.0%	2.7%	3.4%
Harrison Hot Springs	3.5%	9.0%	5.8%	9.9%	7.7%	1.1%	1.9%	2.0%	2.3%	2.9%
Hope	7.7%	9.0%	5.6%	10.9%	7.0%	0.8%	1.2%	1.3%	1.8%	1.9%
Kent	8.6%	7.1%	8.9%	11.5%	6.8%	1.1%	1.2%	1.7%	2.3%	2.6%
Mission	13.3%	13.5%	16.6%	18.0%	14.1%	1.2%	1.7%	2.2%	2.9%	3.7%
Electoral Areas and First Nation Reserves	10.2%	12.1%	14.3%	15.1%	9.3%	1.1%	1.6%	1.9%	2.7%	2.9%
Average	10.1%	12.7%	15.3%	19.0%	14.7%	1.1%	1.7%	2.3%	3.2%	4.0%

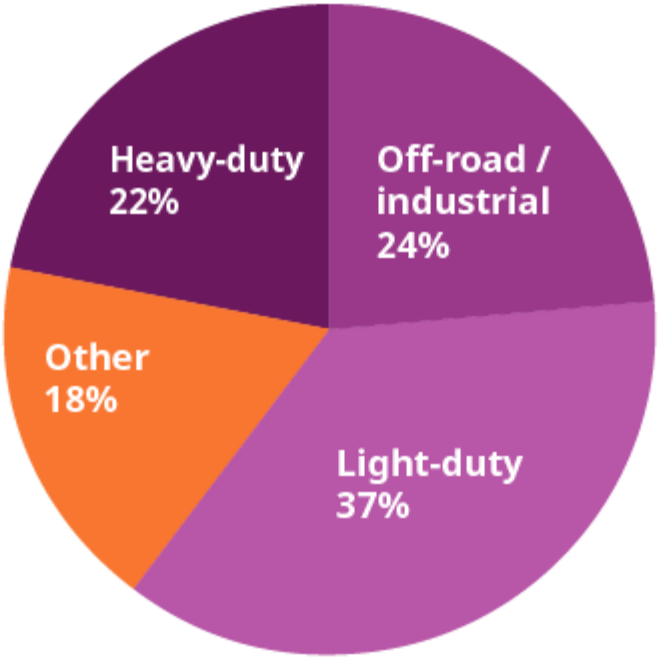
[15] Data from ICBC Vehicle Population Dashboard (2024 passenger vehicles)

Appendix C: Transportation and GHG Emissions

C - Transportation and GHG Emissions

The transportation sector is the largest contributor of community greenhouse gas (GHG) emissions in British Columbia. In 2023, transportation accounted for 42% of the province's total emissions[2]. Light-duty vehicles (LDVs) were the largest source of transportation-related emissions, contributing 37%, followed by off-road and industrial sources (24%) and heavy-duty vehicles (22%), as shown in **Figure C - 1.** The remaining 18% of transportation emissions fall under the "other" category, which includes aviation, public transit (buses and ferries), and commercial and recreational marine vessels.[3]

Figure C - 1: Breakdown of Transportation Emissions in British Columbia (2023)[4]



Through the CleanBC plan, the province is implementing a range of measures to meet its climate commitments and strengthen resilience to climate change. Progress toward a net-zero future will require coordinated action across provincial, regional and local governments. Municipal governments play a particularly important role by influencing on-road transportation emissions through land use and transportation planning that reduces vehicle kilometres travelled and encourages greater use of active, shared, and public transportation. Together, these approaches help reshape transportation systems in line with the Clean Transportation hierarchy, illustrated in **Figure C - 2**.

[2] https://cleanbc.gov.bc.ca/about-climate-change/drivers/transportation/
[3] British Columbia Clean BC
[4] British Columbia Clean BC

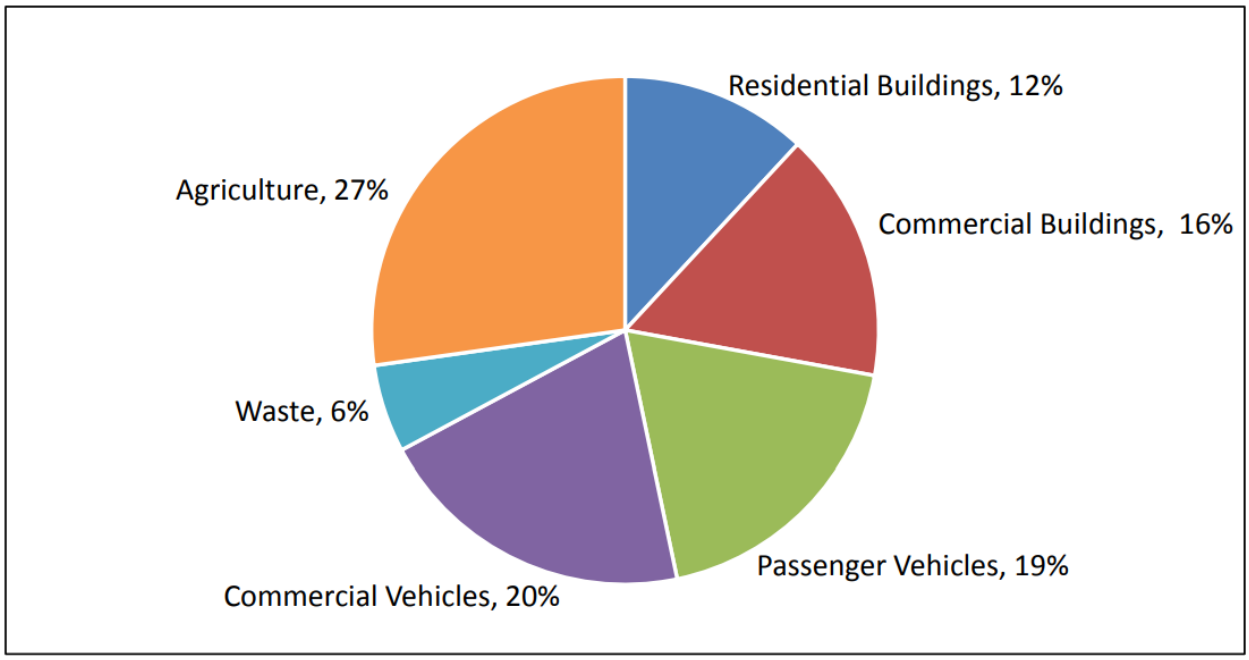
Figure C - 2: Clean Transportation Hierarchy/ Mobility Pyramid[5]

Most preferred methods are at the top and least preferred are at the bottom.

Focusing on the Fraser Valley, the Regional Greenhouse Gas Emission Inventory (2025) reports that approximately 3.1 million tonnes of carbon dioxide equivalent were emitted within the region in 2022. As illustrated in **Figure C - 3**, passenger and commercial vehicles account for nearly 40% of total regional emissions, outlining the significant contribution of on-road transportation to the Fraser Valley's overall greenhouse gas profile

[5] https://www.bcafn.ca/sites/default/files/2025-03/BCAFN_Low_Carbon_Transportation_Planning_Guide_V1_250328.pdf

Figure C - 3: Breakdown of GHG Emissions in the Fraser Valley (2022)[6][7]



The transition to zero-emission vehicles is a key element of this broader sustainable transportation approach, supporting efficient mobility while reducing greenhouse gas emissions from road transportation. Local governments in the Fraser Valley are well positioned to support ZEV adoption through land use policies, transportation planning, targeted programs, and the strategic planning and delivery of charging infrastructure.

In response to the global climate emergency, communities across the Fraser Valley are increasingly prioritizing emission reduction while preparing for the impacts of climate change. Regional and municipal plans place an emphasis on climate-aligned actions, supported by locally adopted emissions reduction targets. These targets, established through a range of regional and municipal strategies, provide a shared framework to guide coordinated action across the Fraser Valley, as outlined below.

→ **Fraser Valley Regional District:** the FVRD's Regional Growth Strategy includes a GHG emissions reduction target of 50% per capita by 2050 from 2007 levels.

→ **City of Abbotsford:** the City of Abbotsford has committed to a 40% reduction of GHG emissions by 2030 and to achieve carbon neutrality by 2050, relative to 2007 baseline levels.

→ **City of Chilliwack:** The City's corporate climate action plan establishes targets to reduce greenhouse gas (GHG) emissions by 50% by 2030 and to achieve carbon neutrality by 2050, relative to 2010 baseline levels. The community climate action plan sets a target to reduce GHG emissions by 40% by 2030 and to achieve carbon neutrality by 2050, relative to 2007 baseline levels.

[6] Regional Greenhouse Gas Emissions Inventory, Fraser Valley Regional District, 2025.
[7] Note: The inventory does not account for emissions arising from exceptional or unplanned events, such as wildfires or accidental releases, which are considered outside the scope of typical community activities and infrastructure.

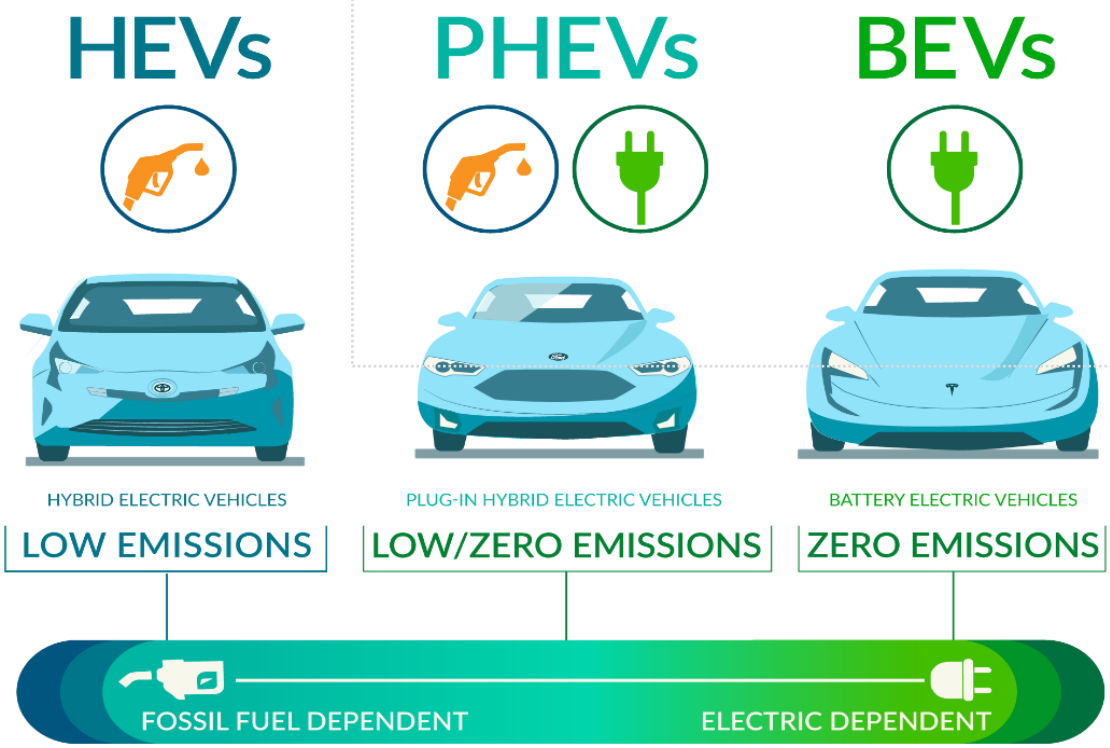
Appendix D:
Electric Mobility

D - Electric Mobility

This strategy focuses on battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), as illustrated in **Figure D - 1**. Other technologies, such as hydrogen fuel cell electric vehicles (FCEVs), may play a role over the longer term, but their limited market presence and supporting infrastructure mean they are not considered further in this assessment. Fuel cell technologies are generally better suited to heavy-duty applications, including freight trucks and buses, where longer range and faster refuelling can be advantageous.

Hybrid electric vehicles (HEVs) combine an internal combustion engine with an electric motor but remain dependent on gasoline and cannot operate solely on battery power. As a result, HEVs are not considered further in this analysis, as they do not support the objective of zero-emission mobility. A comparison of BEVs and PHEVs is provided in **Table D - 1**.

Figure D - 1: Difference between EV Types Commonly Found on the Market[2]



[2] https://marylandev.org/ev-101/

Table D - 1: Comparison of BEV and PHEVs

Plug-in Hybrid Electric Vehicles (PHEV)	Battery Electric Vehicles (BEV)
• Uses a combination of fuel (gasoline or diesel) and electricity stored in a battery • Can operate in electric-only, hybrid, or gasoline/diesel-only modes, depending on driving conditions • Typically equipped with a smaller battery than plug-in electric vehicles • Involves additional maintenance requirements due to the presence of both electric and combustion systems • May capture energy through regenerative braking • Electric-only range is short, typically around 30-50km	• Fully electric vehicle powered by an electric motor and onboard battery • Produces no tailpipe emissions during operation • Captures energy through regenerative braking • Typical range around 250-500km

D.1 - Benefits of EVs

Reduced GHG Emissions

EVs are significantly more energy-efficient than internal combustion engine (ICE) vehicles. EVs use an electric drivetrain with a single-speed transmission, which results in far lower energy losses from heat and friction compared to conventional engines. In addition, EVs can recover energy through regenerative braking and do not consume energy while idling. Together, these characteristics mean that EVs require less total energy to travel the same distance than gasoline- or diesel-powered vehicles.

EVs also produce zero tailpipe emissions and generally have lower lifecycle greenhouse gas emissions than ICE vehicles. This advantage is particularly pronounced in British Columbia, where approximately 98% of electricity generation comes from renewable or clean sources,[3] resulting in a much lower carbon intensity for electric vehicle operation compared to conventional vehicles.

Improved Community Health

EVs produce zero tailpipe emissions, which can substantially reduce localized greenhouse gas emissions and air pollutants. Removing tailpipe emissions from road traffic can help improve local air quality and may contribute to mitigating urban heat island effects, while also reducing health impacts associated with vehicle-related air pollution, including respiratory illness. In addition, the quieter operation of electric drivetrains can reduce traffic noise, supporting quieter and more liveable communities.

[3] https://electricvehicles.bchydro.com/about/our-role-with-EVs

Cost

EVs offer significantly lower operating costs than gas cars, generally saving 40-50% on maintenance and up to 80% on fuel/energy[4]. EVs generally have lower maintenance and repair costs than conventional ICE vehicles, largely because they have fewer moving parts. Routine maintenance associated with ICE vehicles such as oil changes, engine servicing, spark plug replacement, and more frequent brake work is largely eliminated in EVs. EV maintenance is typically limited to items such as tires and brake pads, with regenerative braking further reducing brake wear over time.

As noted, operations costs are significantly lower for EVs. For example, driving approximately 20,000 km per year in an EV will cost approximately $400-600 annually if charging occurs exclusively at home, approximately $1,200-2,900 if charging occurs exclusively using public DCFCs as compared to $2,100-2,500 for a similar gasoline-powered vehicle, assuming an average gas cost of $1.70 per litre.

Potential For Improved Equity

E-mobility can improve equitable access to transportation while advancing energy and environmental justice. EVs reduce ongoing ownership costs, but early adoption has largely been among higher income households, driven by higher upfront costs and better access to overnight charging, which is more common in single detached homes than in multiunit residential buildings.

The benefits of EVs extend beyond individual ownership, as wider adoption can reduce community level air and noise pollution, improving overall health and liveability. At the same time, electric micromobility options such as e-bikes and e-scooters expand the reach of low-cost active transportation, increasing mobility for those without access to a personal vehicle and helping reduce reliance on car ownership.

Despite these benefits, barriers such as uneven charging infrastructure, high upfront costs, and limited vehicle availability continue to limit access for lower income populations. Addressing these challenges particularly through equitable deployment of charging infrastructure in areas without private overnight charging is essential to ensure e-mobility benefits are shared across the Fraser Valley.

D.2 - Factors Affecting EV adoption

While adoption has increased, real and perceived barriers to widespread uptake exist, despite federal and provincial targets, supporting legislation, and significant public investment through incentive programs.

[4] CAA – Cost of owning an electric vehicle (2026).

Affordability/ High Purchase Cost

While the total cost of ownership of electric vehicles in British Columbia is often lower than that of comparable ICE vehicles, the higher upfront purchase price of EVs continues to be a key barrier for many buyers. Although the availability of lower-priced EV models has increased, the used EV market remains limited, particularly for older vehicles, which restricts access for households seeking lower-cost or second-hand options. The price gap between new electric and gasoline vehicles has narrowed considerably over the past decade as battery costs have declined, and some analyses suggest that upfront cost parity may be achievable in certain light-duty segments in the coming years.

Government incentives have historically played an important role in reducing upfront costs. As of 2026, the federal Incentives for Zero-Emission Vehicles (iZEV) program for passenger vehicles has been paused after funds were fully committed[5], and British Columbia's CleanBC Go Electric passenger vehicle rebate has also been paused and is not currently available. While incentive programs for medium- and heavy-duty zero-emission vehicles remain in place at the federal level on a limited basis, there are fewer purchase incentives and limited financial support for associated electric vehicle supply equipment (EVSE). As a result, uncertainty around the availability and continuity of incentives continues to influence consumer adoption and investment decisions.

Electric Range

Electric range anxiety – the concern that an EV may not have sufficient charge to reach a destination or an available location continues to be raised by individuals considering a shift from internal combustion engine vehicles. While EV technology and charging infrastructure have advanced, perceptions of limited range are still influenced by travel needs, trip length, and confidence in charging availabilityparticularly for longer or intercity travel where charging opportunities may be less predictable.

Several factors influence EV range and contribute to these concerns. In Canada, colder winter temperatures can reduce effective range due to higher energy demands for cabin heating and reduced batter efficiency in cold conditions. Driving behaviour, including high speeds, frequent acceleration and braking, as well as factors such as terrain, vehicle load and use of in-vehicle systems can further affect energy consumption. Together, these conditions shape user experiences with EV range and support why range anxiety remains an important consideration in discussions around EV adoption.

Model Availability / Vehicle Supply

While limited vehicle availability was a key barrier to EV adoption in the earlier years, this issue has eased in many parts of Canada as supply chains have stabilized and automakers have expanded production. In some local markets, dealerships now carry higher EV inventory, and demand has

[5] Pause of the Incentives for Zero-Emission Vehicles Program - Canada.ca

softened for certain models. A remaining challenge is that not all vehicle manufacturers and segments offer electric options, which can limit choice for consumers seeking specific vehicle types, price points, or performance characteristics.

Options are more limited for medium- and heavy-duty vehicles. According to the International Energy Association (IEA), electric trucks accounted for 0.3% of truck sales in 2021[6]. Since then, the IEA reports that the global sale of electric trucks more than doubled between 2023 and 2024, indicating growing momentum[7]. Despite this progress, technology remains at an early stage of market penetration and continues to represent only a small share of total truck sales worldwide.

Access To Home Charging

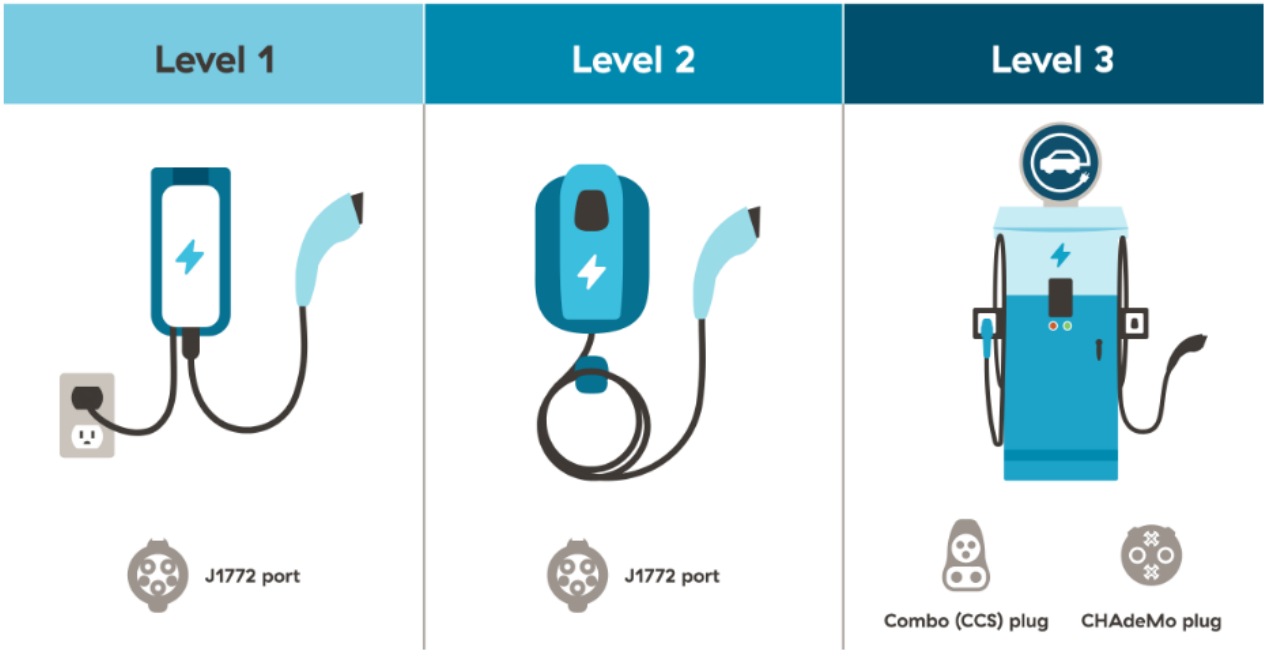
A key barrier to EV ownership is access to home charging. While residents of single-detached homes can typically install chargers in garages or outdoor spaces, this is often not possible for people living in multi-unit residential buildings (MURBs). Apartment and strata residents may face electrical capacity limits or approval hurdles from strata councils or building managers. Those without home charging are often referred to as "garage orphans" and have been slower to adopt EVs due to their reliance on publicly-available charging. However, in 2023 BC adopted amendments to its Strata Property Act and has made it easier for strata residents to install EV charging, assisting in reducing this barrier over time.

D.3 - EV Charging Infrastructure

Plug-in electric vehicles draw electricity directly from the power grid and can be charged using three standard charging levels. These charging options are illustrated in **Figure D - 2** and summarized in **Table D - 2**.

[6] https://www.iea.org/reports/global-ev-outlook-2022/executive-summary
[7] Trends in heavy-duty electric vehicles – Global EV Outlook 2025 – Analysis - IEA

Figure D - 2: Level 1, 2 and 3 Charging Type[8]



[8] https://electricvehicles.bchydro.com/how-use-our-fast-chargers/what-are-different-options-charging-my-electric-vehicle-ev

Table D - 2: Overview of Charging types

	Level 1 (AC)	Level 2 (AC)	Level 3 (DCFC)
Voltage (V)	120	208-240	50-1,000
Maximum Current (Amp)	12-16	≤80	400
Max Power (kW)	1.44-1.92	19.2	400
EVSE and Installation Cost[9]	$1,000 – 3,000[10]	$10,000-$20,000[11]	$40,000 - $100,000[12]
Environment	Home, small battery EV	Home, workplace, publicly-available charging	Publicly-available charging, industrial charging
Typical Use	Level 1 charging relies on a standard 120-volt AC household outlet. While new 120-V outlets are not typically installed specifically for EV charging, existing outlets can offer a convenient option where Level 2 charging is unavailable. As the slowest charging option, Level 1 charging can require up to 16 hours to fully charge a vehicle with a range of approximately 380 km.	Level 2 charging operates at a higher voltage, similar to that used by household appliances such as dryers or ovens, and typically provides 30 to 50 km of driving range per hour of charging. These chargers are the most common option for both public locations and residential settings, and many units support networking and integration with electric-vehicle energy management systems.	Level 3 charging commonly referred to as direct current fast charging (DCFC) uses high-voltage power to deliver charging speeds that can be up to 30 times faster than Level 2. Because of the higher equipment costs and upstream electrical infrastructure requirements, this charging level is generally not suitable for residential use and is typically deployed in major centres and high-demand locations.
Charge Time (400 km range)[13]	Up to 16 hours	8 – 12 hours	0.5 – 2 hours

Electric vehicle charging is supported by Electric Vehicle Supply Equipment (EVSE), which refers to the infrastructure used to safely deliver electricity from the grid to an electric vehicle. Globally, the Society of Automotive Engineers (SAE) International defines two primary standards for plug-in EVSE: SAE J1772 (Type 1, single-phase AC) and SAE J3068 (Type 2, three-phase AC). The

[9] Costs are expressed in 2025 dollars and exclude the effects of inflation overtime.
[10] https://www.flo.com/en-ca/insights/the-real-cost-of-installing-a-home-ev-charger/
[11] https://latestcost.com/commercial-level-2-charging-station-cost/
[12] https://latestcost.com/dc-fast-charger-installation-cost/
[13] Canadadrives.ca. *How Long Does it Take to Charge an Electric Car & How Much Does it Cost.* Accessed online from: https://www.canadadrives.ca/blog/car-guide/how-long-does-it-take-to-charge-an-electric-vehicle

Combined Charging System (CCS) extends these standards to enable fast DC charging. In North America, SAE J1772 and CCS Type 1 connectors are standard across most Original Equipment Manufacturers (OEMs).

Municipal Installation & Ownership

Local governments play an important role in enabling the expansion of electric vehicle supply equipment (EVSE) through policy, regulation, and targeted investment. Municipalities can support charging deployment by integrating EV ready requirements into land use and building policies, facilitating permitting and leveraging funding from provincial and federal funding programs to reduce upfront capital costs. Despite increasing private sector interest in EV charging, public sector involvement is important for addressing gaps in coverage and ensuring that infrastructure is delivered in locations that may not yet be commercially attractive.

Municipal ownership and operation of EV charging infrastructure can help advance equity objectives by improving access in lower-income neighbourhoods, rural locations and areas with limited access to private charging. Updates to the LCFS have clarified eligibility for electricity supplied for transportation purposes, municipally owned charging infrastructure may also generate low carbon fuel credits when properly reported, providing a potential revenue stream to help offset operating and lifecycle costs[14]. The provision of EV charging infrastructure can reasonably be considered a public benefit that supports broader climate and air quality objectives.

The scale and type of infrastructure that municipalities choose to install should be informed by local conditions, including anticipated EV adoption, existing public and private charging availability, site utilization potential, and alignment with municipal and regional sustainability goals. Strategic deployment focused on priority corridors, community hubs and underserved areas can help ensure that public investments in charging infrastructure can deliver maximum benefit while supporting the transition to zero-emission transportation.

Private Sector Installation & Ownership

Private landowners and businesses are able to participate in British Columbia's LCFS by supplying electricity for EV charging, which is recognized as an eligible low carbon fuel when reporting requirements are met[15]. Participation in the LCFS can help offset some of the capital and operating costs associated with EV charging infrastructure, as electricity supplied for transportation purposes may generate tradeable LCFS credits. Credit generation is often facilitated through aggregation across multiple charging sites or through third-party service providers that manage reporting and credit transactions.

[14] Electricity as a renewable and low carbon fuel - Province of British Columbia
[15] https://www2.gov.bc.ca/gov/content/industry/electricity-alternative-energy/transportation-energies/renewable-low-carbon-fuels/electricity

Municipalities can support private sector deployment by encouraging knowledge sharing and partnerships with local businesses, property owners, and charging network operators, particularly in high demand locations such as commercial districts, shopping centres, employment areas, and shared public parking facilities. Public-private partnerships can aid in EV adoption through aligning public objectives such as access, coverage and equity with private investment and operational expertise supporting efficient charging infrastructure across the region.

Advantages & Challenges of Owning and Operating Charging Infrastructure

Given updates to low carbon fuel regulation, the ability for fuel suppliers to generate low carbon fuel credits has strengthened the business case for municipalities considering the expansion of publicly-available charging infrastructure. Participation in the LCFS can help offset installation and operating costs overtime and may contribute to positive financial returns over the asset lifecycle, depending on utilization and market conditions.

Table D - 3 outlines the key advantages and challenges to consider when deciding whether to install and operate EV infrastructure.

Table D - 3: Advantages and Challenges of Installing Zero Emissions Vehicle Infrastructure

Advantages	Challenges
Expanding EV charging infrastructure enables municipalities to support transportation related emission reductions by facilitating the shift from ICE vehicles to EV alternatives, contributing to lower GHG emissions and broader climate change emissions.	**Upfront costs:** Installing electric vehicle charging infrastructure can require significant upfront investment, especially for fast chargers that involve higher equipment, electrical and installation costs, as well as variable networking fees.
Site selection: Municipalities can apply best practices in site selection and prioritize the placement of charging stations in convenient, high-demand locations, including commercial districts, shopping centres and public parking lots.	**Maintenance and repair:** Charging stations require regular maintenance and occasional repairs, which can add to ongoing operating costs and resource requirements.
Data management: Municipal ownership of EV charging infrastructure enables data collection on charging behaviour, demand patterns, and utilization, which can inform future infrastructure planning and investment decisions.	**Electricity costs:** Electricity rates and demand charges can fluctuate overtime, influencing the operating costs associated with EV charging infrastructure.
Equity and access: Municipal ownership and operation of electric vehicle charging infrastructure can help ensure that charging is accessible and equitable for residents who do	**Competition:** Growth in both electric vehicle ownership and charging infrastructure may lead to increased competition among charging providers, potentially affecting utilization and

Advantages	Challenges
not have access to private charging, such as those living in apartment buildings, or other multi-unit or rental housing. Municipalities may also set user fee and where appropriate offer reduced or subsidized charging rates to support affordability and access.	cost recovery. As the private market matures, municipal involvement in charging deployment may be less critical in certain areas.
New revenue stream: Owning and operating charging stations can provide municipalities with a new revenue source through electricity sales and participation in the LCFS credit market.	**Electrical capacity constraints:** Supporting EV charging infrastructure may require upgrades to local electrical capacity, particularly for higher-power installations.

D.4 - Publicly-Available Charging Network

A summary of publicly-available EV charging stations in the Fraser Valley was compiled from Natural Resources Canada (NRCan)'s database and is presented in **Table D - 4**. Publicly available chargers are provided by a mix of government and private providers on both public and private property. As of the final quarter of 2025, the region has 101 Level 2 charging stations and 263 individual Level 2 charging ports. With 11,110 EVs registered, this equates to roughly 42 EVs per publicly-available Level 2 port.

Level 2 EV charging ports are available across most of the Fraser Valley, with the exception of three unincorporated areas: Electoral Area D, E and F which currently have no Level 2 infrastructure. EV to Level 2 charger ratios are in the 40 to 50 range across the urban municipalities of Abbotsford, Chilliwack, and Mission. They are much lower in Hope and Harrison Hot Springs, at 22.8 and 6.8, respectively, noting a surplus of chargers relative to residential needs. This is likely due to tourism and interregional travel requirements in these communities. Conversely, ratios are highest in Kent at over 100, indicating a general lack of publicly-available chargers.

The Fraser Valley hosts 53 DC fast charging stations providing 219 individual DCFC ports, resulting in a ratio of 51 EVs for each publicly-available DCFC port. Hope has the highest number of DCFC ports (70) driven by its role as an interregional gateway, followed by Abbotsford (67) and Chilliwack (46). Among the eight unincorporated areas, only Electoral Areas A, B and C have DCFC infrastructure with 2, 4 and 4 ports respectively.

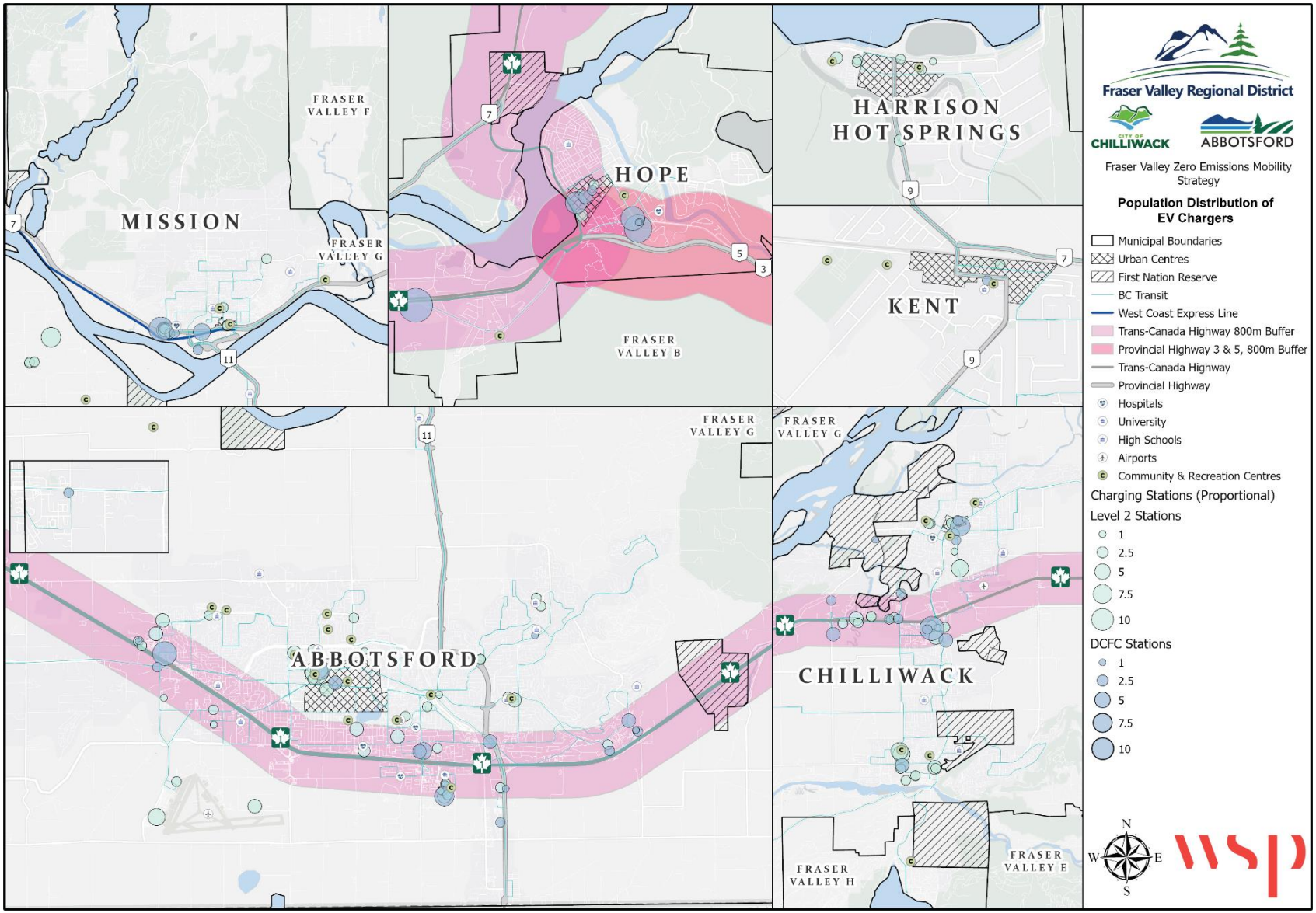
The distribution of the FVRD's current publicly-available charging network is displayed in **Figure D - 3**. Current charging infrastructure is oriented toward major travel routes, with most DC-fast charging stations positioned within 800m of Highway 1, and/or within the urban centres of Abbotsford, Chilliwack, and Hope. Level 2 stations are more widely distributed, and can be found in Mission, Kent and Harrison Hot Springs, through at noticeably lower densities outside the Highway 1 corridor.

Table D - 4: Publicly-Available Charging Stations in the Fraser Valley as of 2025[16]

Municipality	EV Population	Number of Level 2 Charging Ports	EVs per Level 2 Charger	Number of DCFC Ports	EVs per DCFC
Abbotsford	5,762	128	45.0	67	86.0
Chilliwack	3,172	76	41.7	46	69.0
Harrison Hot Springs	102	15	6.8	0	-
Hope	137	6	22.8	70	2.0
Kent	209	2	104.5	4	52.3
Mission	1,426	28	50.9	22	64.8
Electoral Areas and First Nations Reserves	303	8	37.9	10	30.3
Fraser Valley Total	11,110	263	42.2	219	50.7

[16] EV population data obtained from ICBC, charger data obtained from NRCan

Figure D - 3: Distribution of EV chargers (Level 2 and DCFC)



D.5 - Electric Micromobility

Micromobility generally refers to small, lightweight, single-user vehicles such as bicycles, scooters and skateboards, that operate at relatively low speeds. These modes are typically used for short trips and are well suited for urban environments due to manoeuvrability and ability to navigate around pedestrians and other road users. Micromobility devices may be privately owned or provided through a shared fleet system. An increasing share of these devices are electrically powered including e-bikes, and e-scooters; this subset is commonly referred to as electric micromobility and is the focus of the micromobility options assessed in this Strategy. The benefits of micromobility are summarized in **Figure D - 4** and described below.

- **Efficiency and convenience:** Electric micromobility devices provide a faster alternative to walking and offer independent mobility options for people without access to a private vehicle. Well-suited to short trips of approximately 1-5km, they enable efficient local travel and can reduce reliance on both private automobiles and public transit for short-distance trips. These devices allow users to avoid common challenges associated with auto travel including parking constraints, operating and maintenance costs, and traffic congestion.
- **First- and last-mile connectivity:** Electric micromobility can complement public transit by addressing first- and last-mile gaps, providing connections between homes and employment areas and transit stops. This can aid in improving the attractiveness of transit, particularly in lower-density suburban areas where fixed-route coverage may be limited.
- **GHG and Air Quality improvements:** By shifting short trips away from internal combustion engine vehicles, electric micromobility can contribute to reduced vehicle kilometres travelled (VKT) and associated GHG emissions, as well as localized air pollutant reductions.
- **Enhanced mobility and comfort:** E-bikes use pedal-assist motors to reduce physical effort, particularly on hills or longer routes. This added assistance can expand the range of users for whom cycling is a viable option and may influence travel decisions by reducing physical barriers to active transportation.
- **Affordability:** Purchasing or renting an electric micromobility device is generally more affordable than owning a full-sized vehicle, avoiding costs associated with insurance, fuel and ongoing maintenance.
- **Noise reduction:** Electric micromobility devices operate quietly due to the absence of combustion engines, supporting lower ambient noise levels in urban and suburban areas compared to conventional vehicle travel.

Figure D - 4: Benefits of Micromobility Devices

Factors Affecting E-Micromobility Adoption

While e-micromobility devices offer a range of mobility, environmental and accessibility benefits, several barriers continue to limit their uptake. More recent Canadian research indicates that high upfront costs, limited availability of secure parking and concerns about theft, road safety risks, and inconsistent or unclear regulations remain key challenges[17].

- **Purchase Cost:** E-bikes typically have higher purchase prices than comparable conventional bicycles due to the cost of batteries, although the expanding range of models on the market is contributing to improved affordability. Previously, the province of British Columbia offered an incentive program (Go Electric Rebates Program) to help offset upfront costs. However, this program is paused as funds have been fully allocated.
- **Versatility:** Like manually powered bicycles, e-micromobility devices have versatility limitations. The Fraser Valley receives an average of 1,600 mm of precipitation annually, with roughly 75% falling between October and April. Much of the population may not feel comfortable being exposed to rain or other climatic elements through much of the year. Additionally, e-micromobility devices are mainly designed for a single user and, with notable exceptions, are not amenable to hauling additional materials. As 75% of FVRD households have 2 or more people, e-micromobility may be an impractical transportation option for many, especially if drivers are travelling alongside other household members, including children.
- **Geography:** The Fraser Valley's unique geography an attractor for e-micromobility. The region's hilly topography – especially in areas of Abbotsford, Chilliwack, Mission, and Hope – creates

[17] https://transformlab.torontomu.ca/wp-content/uploads/2025/09/CHALLENGES-AND-BARRIERS-TO-ELECTRIC-SHARED-MICRO-MOBILITY-USE-IN-GREATER-TORONTO-AREA-MUNICIPALITIES.pdf

opportunities for electric power assist to reduce barriers to cycling for some members of the public. Additionally, electric mobility extends the boundaries of what can be reached by active transportation within a given period of time, availing micromobility to a greater share of trips.

- **Road Safety Concerns:** A primary barrier for cycling has been the concern of sharing road space with fast-moving vehicles, and e-bikes are no different. An added dimension to e-bikes is their higher operating speed, compounding the risk of accidents with vehicles. A survey conducted by the Capital Regional District, for example, found that approximately 22% of respondents stated that concern about their safety on e-bikes was a barrier to ownership[18]. Additionally, for communities participating in the Provincial e-scooter pilot, e-scooters are required by provincial regulation to use the road – not sidewalks. Improved cycling infrastructure such as protected cycling lanes and intersection reconfigurations that improve rider safety could help mitigate this barrier.
- **Secure and accessible parking**: Secure parking is an important consideration for micromobility adoption across the Fraser Valley. E-scooters are susceptible to theft given their small size and ease of removal, especially for folding models. Secure parking measures such as controlled or monitored parking areas, designated micromobility facilities, lighting surveillance and bike valets can help reduce risk of theft and improve user confidence.
- **Regulations:** In British Columbia, e-scooters may only be operated on public roadways within municipalities that are participating in the provincial Electric Kick Scooter Pilot Project. The use of e-scooters on public roads in non-participating communities is prohibited. This creates a barrier to e-scooter ownership in parts of the Fraser Valley where municipalities have not opted into the pilot. While communities such as Chilliwack currently permit e-scooters under the provincial pilot framework, other Fraser Valley municipalities and communities do not. This limits where e-scooters can be legally used. Expanding municipal participation in the pilot project and adopting enabling bylaws would reduce regulatory uncertainty and help remove this barrier for residents considering purchasing an e-scooter.

[18] ibid.

Appendix E:
EV Policy and Planning Context

E - Electric Vehicle Policy & Planning Context

A review of relevant policies, plans, and targets was undertaken at the federal, provincial, regional and municipal levels.

E.1 - Federal

Zero Emission Vehicles Sales Targets

The Government of Canada has committed to reducing GHG emissions from on road transportation. Under the 2020 climate plan, *A Healthy Environment and a Healthy Economy,* the federal government initially established national ZEV targets of 10% by 2025, 30% by 2030 and 100% by 2040[2]. These targets were subsequently strengthened, and in December 2023 the federal government finalized the *Electric Vehicle Availability Standard*, a binding regulation requiring at least 20% of new light-duty vehicle sales be zero-emission by 2026, 60% by 2030 and 100% by 2035[3].

To provide international context, Canada's commitment to 100% zero-emission light-duty vehicle sales by 2035 is broadly aligned with leading jurisdictions globally. As of 2025 similar phase-out timelines have been adopted across the European Union and the United Kingdom, as well as in several U.S states including California, Colorado, Delaware, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington. At the federal level, the US government has also committed to transitioning its vehicle fleet to zero-emission vehicles, requiring 100% ZEV acquisitions for federal fleets by 2035, with light-duty federal vehicle purchases reaching 100% ZEVs by 2027.

These combined domestic and international policy signals are expected to accelerate electric vehicle adoption nationwide, including within the Fraser Valley. As ZEV sales targets increase, both residents and visitors will require reliable and accessible charging options, highlighting the importance of proactively expanding the charging infrastructure across the Fraser Valley.

EV and Infrastructure Incentives

The Government of Canada has invested more than $1 billion to support the adoption of zero-emission vehicles. This support continues through the Zero Emission Vehicle Infrastructure Program (ZEVIP), a $680 million initiative funding electric and hydrogen refuelling infrastructure through 2027[4]. From 2019 until its closure, the Incentives for Zero-Emissions Vehicles (iZev)

[2] https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/healthy-environment-healthy-economy.html
[3] https://www.canada.ca/en/environment-climate-change/news/2023/12/canadas-electric-vehicle-availability-standard-regulated-targets-for-zero-emission-vehicles.html
[4] https://natural-resources.canada.ca/energy-efficiency/transportation-energy-efficiency/zero-emission-vehicle-infrastructure-program

Program supported consumer ZEV purchases, including eligible minivans, light-duty pick-up trucks, and SUVs, alongside broader federal investments in charging infrastructure.

Federal EV infrastructure incentives can be leveraged to expand publicly-available charging options locally.

Clean Fuel Regulations

In July 2022, the government of Canada finalized the Clean Fuel Regulations (CFR) under the Canadian Environmental Protection Act, 1999, with carbon-intensity reduction requirements for liquid fossil fuels taking effect on July 1, 2023. The CFR require producers and importers of gasoline and diesel to progressively reduce the lifecycle carbon intensity (CI) of fuels they produce in and import into, Canada relative to 2016 baseline levels. The CI reduction requirements began at 3.5 grams of carbon dioxide equivalent per megajoule (gCO2e/MJ) and increase annually to 14 gCO2e/MJ in 2030, representing an approximate 15% reduction in the carbon intensity of gasoline and diesel[5].

The Clean Fuel Standard provides three ways to earn credits:

1. **Compliance category 1:** Implementing projects that reduce the lifecycle carbon intensity of fossil fuels, such as carbon capture and storage, on-site renewable electricity, and co-processing.
2. **Compliance category 2:** Supplying low-carbon intensity fuels to the market, including ethanol and biodiesel.
3. **Compliance category 3:** Supporting advanced vehicle technologies by supplying energy for electric or hydrogen fuel-cell vehicles.

By reducing the carbon intensity of gasoline and diesel used in Canada, the Clean Fuel Regulations help lower greenhouse gas emissions from the existing internal combustion engine fleet over time. This policy plays an important complementary role alongside vehicle electrification reducing emissions from liquid fuels that will continue to be used during the transition to a zero-emission transportation system.

E.2 - Provincial

BC Zero Emissions Vehicles Act

The BC Zero-Emission Vehicles Act (Bill 28-2019) originally established provincial ZEV sales targets of 10% of light-duty vehicle sales by 2025, 30% by 2030, and 100% by 2040, requiring all new light-duty motor vehicle sales to be zero-emission on and after January 1, 2040. As part of the CleanBC Roadmap to 2030, these targets were accelerated in November 2023, increasing the

[5] https://gazette.gc.ca/rp-pr/p2/2022/2022-07-06/html/sor-dors140-eng.html

requirements to 26% of light-duty and Class 2B vehicle sales by 2026, 90% by 2030, and 100% by 2035. To support this accelerated transition, jurisdictions across the Fraser Valley will need to ensure sufficient and accessible charging infrastructure is in place to meet growing demand.

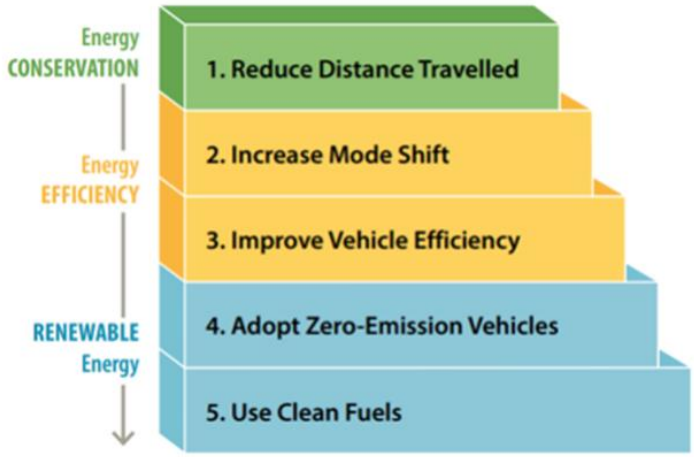
BC Ministerial Order M104

Ministerial Order No. 104 exempts entities that are not public utilities including individuals, landlords, and strata corporations from regulation under the Utilities Commission Act when providing electric vehicle charging services for a fee. This exemption allows these entities to own and operate EV charging infrastructure and resell electricity for charging purposes.
The policy supports the expansion of EV charging infrastructure in British Columbia by enabling infrastructure providers to recover costs and generate revenue. It also aligns with municipal bylaws that require the installation of Level 2 chargers in new developments and redevelopments, as developers and building owners can now receive a return on their investment in charging infrastructure.

Clean BC Roadmap to 2030

The CleanBC Roadmap to 2030 outlines the province's approach to achieving its greenhouse gas reduction targets and transitioning to a lower emission economy. Transportation measures are a central component of the roadmap and are particularly relevant to planning efforts in the Fraser Valley. The CleanBC Roadmap prioritizes transportation actions based on their effectiveness in reducing greenhouse gas emissions, beginning with travel demand reduction and mode shift, followed by vehicle efficiency, electrification and the use of cleaner fuels as outlined in **Figure E-1**.

Figure E- 1: CleanBC Roadmap to 2030 Transportation Prioritization for lowering GHG emissions



Key transportation-related actions include the acceleration of provincial zero-emission vehicle (ZEV) sales requirements under Bill 39-2023, which require 26% of new light-duty vehicle sales to be ZEVs by 2026, increasing to 90% by 2030 and 100% by 2035. The roadmap also introduces new ZEV sales targets for medium- and heavy-duty vehicles, aligned with industry-leading State of California standards. Additional commitments include completing B.C.'s Electric Highway, expanding the publicly-available charging network to 10,000 publicly-available charging stations by 2030, supporting a shift toward active transportation and public transit, and implementing a 100% Clean Electricity Delivery Standard for the BC Hydro grid by 2030.

The roadmap further strengthens fuel-based policies by enhancing the Low Carbon Fuel Standard, increasing the required carbon-intensity reduction for gasoline and diesel from 10% to 20% by 2030, and expanding the program to include marine and aviation fuels beginning in 2023. Supporting actions focus on reducing vehicle travel, improving energy efficiency, and accelerating the transition to zero-emission vehicles. These include targets to reduce light-duty vehicle travel by 25% by 2030 (relative to 2020 levels), increase the share of trips made by walking, cycling, and transit, expand publicly-available EV charging infrastructure, improve vehicle efficiency, and complete the Clean Transportation Action Plan.

As of late 2025, the Province has paused the accelerated electric vehicle sales targets introduced under the CleanBC Roadmap and initiated a formal review of the mandate. Updated targets are expected to be announced in spring 2026 and are anticipated to align more closely with federal standards. The impact of future uncertainty in EV fleet make-up is addressed in the scenario approach undertaken for the technical component of the present Strategy.

Electric Kick Scooter Pilot Regulation

Part 13 of the BC Motor Vehicle Act enables the Province to establish pilot projects to research, test, and evaluate transportation matters not otherwise addressed in the existing legislative framework[6]. These pilot projects allow the province to work with local governments to trial new regulatory approaches that support active transportation and improve road safety. Under the current framework, pilot projects may remain in force for up to four years, with potential for extension where broader application is being considered.

British Columbia's electric kick scooter pilot project was first introduced in 2020 and has been expanded with the current phase in effect since April 5, 2024, under the Electric Kick Scooter Pilot Project Regulation[7]. Electric kick scooters may be operated on public roads only within participating municipal communities, in accordance with provincial regulations and any additional municipal bylaws adopted by those communities. In addition to participating municipalities, the regulation permits limited use of electric kick scooters outside municipal boundaries, including within electoral areas.

Within Fraser Valley, participation in the Electric Kick Scooter Pilot Program is currently limited to the City of Chilliwack.

British Columbia's Low Carbon Fuel Standard

British Columbia's Low Carbon Fuel Standard (LCFS) is a provincial regulatory program that sets requirements to reduce the carbon intensity of fuels used in transportation and certain other prescribed purposes. The program creates a credit market that allows supplies of low-carbon fuels, including electricity used for transportation, to generate compliance credits based on emission reductions achieved relative to conventional fuels. These credits may be sold to regulated fuel suppliers to support compliance with the LCFS.

While participation in British Columbia's Low Carbon Fuel Standard (LCFS) can involve administrative and reporting requirements, it presents an opportunity for the Fraser Valley Regional District and its member municipalities to help offset the costs of zero-emission vehicle infrastructure. Given the size and diversity of the region there may be advantages to coordinating LCFS participation across multiple charging assets either through intermunicipal collaboration to reduce administrative burden and improve the viability of credit generation from smaller or lower-utilized sites. Where electricity is supported for transportation purposes, such as EV charging, the responsible party is required to ensure that eligible fuel volumes are reported through the Province's LCFS Portal.

[6] Motor Vehicle Act pilot projects - Province of British Columbia
[7] https://www2.gov.bc.ca/gov/content/transportation/driving-and-cycling/cycling/personal-mobility-devices/scooter

LCFS Revenue Allocation

To ensure that revenues generated through low carbon fuel credits are used effectively, the Fraser Valley Regional District and its member municipalities may wish to establish a clear framework to guide how LCFS related revenues are allocated and reinvested. A defined policy approach can help ensure that funds are directed toward priority outcomes, such as the expansion and ongoing operation of electric vehicle charging infrastructure or other low-carbon mobility initiatives aligned with regional objectives. Reinvesting LCFS into publicly-available charging infrastructure can support cost recovery over the asset lifecycle. Strategic reinvestment approach can help create a reinforcing cycle in which charging deployment supports credit generation and credit revenues in turn can contribute to the expansion and maintenance of ZEV infrastructure.

E.3 - Regional

Fraser Valley Future 2050 – Regional Growth Strategy

The Fraser Valley Future 2050 Regional Growth Strategy (RGS) is a long-term, strategic framework designed to guide the coordinated development of the Fraser Valley Regional District. Enabled by the Local Government Act, the RGS provides an overarching vision for managing growth, infrastructure, housing, economic development, environmental stewardship, and reconciliation with Indigenous Peoples. It aims to ensure that the region's municipalities, electoral areas, Indigenous communities, and other stakeholders work collaboratively toward a sustainable, healthy, and prosperous future.

Fraser Valley Regional District's Air Quality Management Plan

The Fraser Valley Regional District Air Quality Management Plan (AQMP) 2021 provides a long-term framework for improving and protecting air quality in the Lower Fraser Valley. The AQMP identifies on-road transportation as one of the largest sources of particulate matter (PM2.5) which negatively influences human health and is a significant contributor to regional GHG emissions. While nitrogen oxides emissions have been declining across the region, largely due to improvements in vehicle technology and fuel standards, transportation electrification remains a key strategy for further improving air quality and achieving long-term climate conditions.

The AQMP organizes actions by emission source and prioritizes measures based on effectiveness, feasibility, and expected outcomes. For on-road transportation the AQMP emphasizes accelerating zero emission vehicle adoption through supportive policy, education, incentives and charging infrastructure, as well as reducing emissions from conventional vehicles through fleet upgrades, anti-idling measures and cleaner fuels. The AQMP also identifies the electrification of commercial vehicles, including reduced truck idling through electrification infrastructure at key locations, as a priority opportunity for emission reduction.

Draft Fraser Valley Regional District Active Transportation Network Plan

The Draft Fraser Valley Active Transportation Network Plan (ATNP) establishes a long-term vision for active transportation across the Fraser Valley. The ATNP provides guidance for how the FVRD will work collaboratively with community and agency partners and neighbouring jurisdictions to create a connected active transportation network.
The ATNP focuses on the following seven key strategies which cumulatively include 28 targeted actions.

- Strategy 1: Create Community Active Transportation Connections
- Strategy 2: Establish a Regional Transportation Network
- Strategy 3: Improve Safety for Active Transportation Users
- Strategy 4: Maintain the Active Transportation Network
- Strategy 5: Enhance Active Transportation to Transit and School buses
- Strategy 6: Improve Awareness of Active Transportation
- Strategy 7: Enhance Capacity within the FVRD to Implement the Active Transportation Network Plan.

Furthermore, the draft plan includes an action focused on monitoring the use of active transportation infrastructure and assessing the implications of emerging mobility technologies. This is relevant given the growing presence of new mobility modes such as e-bikes, e-scooters and e-skateboards, which may impact how active transportation facilities are used and managed.

E.4 - Municipal

City of Abbotsford

Abbotsford Official Community Plan

The City of Abbotsford Official Community Plan (OCP), “Abbotsforward 2050”, establishes the long-term policy framework for accommodating growth to 250,000 residents while advancing sustainability and climate resilience. The OCP aligns with federal and provincial climate commitments and sets community-wide GHG reduction targets of a 40% reductions below 2005 by 2030 and net zero carbon emissions by 2050. In accordance with provincial legislation, GHG reduction considerations are integrated throughout the OCP, including land use, transportation, and infrastructure policy, with transportation identified as a key contributor to community emissions.

The OCP emphasizes the coordination of land use and transportation to reduce vehicle dependence and support mode shift. Growth is contained within the Urban Development Boundary, with the majority of new development directed to mixed-use centres and transit served areas. Transportation policies prioritize walking, cycling and micromobility over private vehicle

travel, with a target that 25% of all trips be made without a private vehicle over the life of the OCP. The OCP also calls for the development of a frequent transit network along key corridors, expansion of connected active transportation networks designed for daily travel, reduced parking supply in urban centres and pedestrian-oriented street design.

The OCP includes policy direction to support electric vehicle adoption, including studying requirements for EV charging in new developments and encouraging retrofits in existing buildings. Collectively, these policies provide a clear foundation for advancing zero emissions mobility through compact urban development, mode shift, transit investment, and vehicle electrification.

Transportation and Transit Master Plan 2018

The City of Abbotsford Transportation and Transit Master Plan (TTMP) 2018 provides the long-term framework for managing transportation as the city grows towards a projected population of 200,000 by 2040. The TTMP guides transportation policy, planning and investment decisions and is aligned with Abbotsford's Official Community Plan.

The TTMP establishes goals that prioritize walking, cycling and transit; support safe and equitable movement for people and goods; integrate transportation and land use planning; and prepare for emerging transportation technologies. Of relevance to the Fraser Valley Zero Emissions Mobility Strategy, the TTMP also includes actions related to electric vehicles, shared mobility services and new transportation technologies. While the TTMP was adopted in 2018, prior to recent advances in zero emission mobility, it provides a supportive policy foundation for vehicle electrification, EV ready development requirements and the integration of new mobility services. Furthermore, as outlined within the City of Abbotsford updated Official Community Plan, the Transportation Master Plan will be updated in the future.

Abbotsford Zoning Bylaw

The updated Abbotsford Zoning Bylaw (Bylaw 3249-2022) introduces enhanced requirements for EV charging infrastructure in new residential developments. These requirements apply to new buildings and structures with supported housing developments exempt from EV charging provisions.

Key requirements include:

- **Applicability:** EV charging requirements apply only to new buildings or structures.
- **Residential uses with separate private parking spaces:** one energized outlet capable of providing Level 2 Charging or higher for each dwelling unit that has required residential parking spaces.
- **Residential Principal Uses with Private Parking:** Each dwelling unit with required residential parking spaces must have one energized outlet capable of Level 2 charging or higher.
- **Residential Principal Uses with Common Parking Areas:** All required parking spaces for dwelling units must have raceways or conduit (with drawstrings) capable of supporting Level 2 charging or higher, including all necessary electrical equipment. Additionally,

either all required parking spaces or one per dwelling unit (whichever is less) must have an adjacent energized outlet for Level 2 charging or higher.

- **Visitor Parking:** 20% of required residential visitor parking spaces (and at least one if visitor parking is provided) must have an adjacent energized outlet for Level 2 charging.
- **Labelling:** Energized outlets must be labelled for EV charging use.
- **Energy Management:** Designs using an EV Energy Management System must achieve a performance standard of three-way sharing on a 40A circuit or a comparable charging rate.

City of Chilliwack

2050 Chilliwack Official Community Plan

The City of Chilliwack's 2050 Official Community Plan (OCP) establishes a long-term vision, with land use and policy frameworks, to guide growth, development, and community wellbeing. The OCP seeks to manage population growth by concentrating development with an urban corridor, protecting agricultural lands, and fostering compact, complete communities. Through this approach the plan supports efficient land use, improved accessibility, and more sustainable travel patterns. Key goals of the OCP include:

- **Managing Growth Responsibly**: Maintain the urban growth boundary, densify, comprehensively plan sustainable communities, selectively develop hillsides, ensure development pays for itself and provide required infrastructure capacities.
- **Strengthen Agriculture**: Protect farmland, support the farming community, preserve the urban and rural interface, and ensure the economic viability of agriculture.
- **Grow the Economy**: Diversify economic and employment opportunities, revitalize the downtown, and create jobs for the anticipated population increase.
- **Protect the Environment**: Foster community and individual responsibility in environmental protection and enhancement.
- **Building Healthy, Safe and Attractive Communities**: Engage the public, emphasize social well-being, build healthy environments and promote attractive design.

Chilliwack Active Transportation Plan 2022

The City of Chilliwack's Active Transportation Plan provides a framework for guiding investment in walking and cycling infrastructure to support a more balanced and sustainable transportation system. The Plan focuses primarily on pedestrian infrastructure, including sidewalks, multi-use pathways, crossings and accessibility improvements.

Chilliwack's Active Transportation Plan supports increased active transportation mode shares by addressing infrastructure gaps and prioritizing high need corridors. These actions contribute to safer and more accessible travel options and support the city's broader climate objectives including reducing community wide GHG reductions by 40% by 2030 (relative to 2007 levels) and achieving net zero emissions by 2050.

Chilliwack Cycle Vision Plan

The City of Chilliwack's Cycle Vision Plan establishes a long-term framework for making cycling safer, more accessible and attractive for people of all ages and abilities. Building on existing network of 180km bike lanes and trails, the plan identifies network gaps and outlines a continuous, connected cycling system with the Sardis Rail Trail serving as the primary spine. Key objectives include increasing cycling trips and improving safety through the delivery of protected bike lanes, improved crossings, clear wayfinding and secure bicycle parking.

The plan identifies a combination of near term "quick win" projects and longer-term priorities. Complementary actions include integration with transit, education and outreach, ongoing maintenance, and monitoring through regular surveys. Together, these measures support cycling as a core component of Chilliwack's transportation system and contribute to improved connectivity, public health and reduced transportation emissions.

Corporate and Community Action Plan

The City of Chilliwack's Corporate and Community Climate Action Plans aim to reduce the impacts of climate change over the next decade and beyond. These plans respond to the increasing frequency of extreme weather events caused by climate change and aim to meet provincial and federal GHG reduction. The targets for each of the plans are as follows:

- **Corporate Climate Action Plan:** 50% reduction by 2030 carbon neutral by 2050 baseline year: 2010
- **Community Climate Action Plan:** 40% reduction by 2030 carbon neutral by 2050 baseline year: 2007

Chilliwack's Corporate Climate Action Plan aims to lower emissions from City operations. In 2020, city operations contributed 5,560 tonnes of CO2e, or about 1.3% of total community emissions. Largest contributors include city fleet (31%) and recreational operations (27%). Key actions outlined in the plan are as follows:

- Transitioning to a 100% electric light-duty fleet by 2030–2040.
- Phasing in a 100% zero-emission heavy-duty fleet by 2030–2050.
- Retrofitting City facilities with energy-efficient systems, including heat pumps.
- Ensuring new municipal buildings have net-zero carbon emissions.
- Utilizing biogas at the sewage treatment plant.

The Community Action Plan focuses on activities that generate GHG emissions in Chilliwack. It identifies key sources of emission including transportation and others, such as heating and cooling of buildings, heating water and disposal of compostable waste. To reduce community GHG emissions the city aims to:

- Increase transit mode share by 3–10% and pedestrian mode share by 6–15% by 2050.

- Accelerate heat pump adoption by 40–100% by 2030–2050.
- Encourage energy efficiency upgrades in buildings.
- Promote electric and zero-emission vehicle (EV/ZEV) adoption by 40–50% by 2030.
- Support the building industry in adopting the BC Energy Step Code.
- Reclaim and restore natural areas.
- Divert 95% of compostable waste from landfills by 2040.
- Improve landfill gas capture efficiency by 10–15% by 2030.

Chilliwack Zoning Bylaw 2020, 5000

The Chilliwack Zoning Bylaw 2020, 5000 establishes requirements for electric vehicle charging infrastructure in new developments, particularly in residential and multi-unit buildings as follows:

- **Single Detached Dwellings & Duplexes**: At least one off-street parking space must be equipped with an energized outlet capable of delivering Level 2 charging or higher (including all necessary electrical equipment).
- **Townhouses**: Each townhouse unit must have at least one required off-street parking space (excluding visitor parking) equipped with an energized outlet for Level 2 charging or higher.
- Apartments:
    - Raceways or conduit (with drawstrings) capable of providing Level 2 charging or higher must be installed to service all required off-street parking spaces (excluding visitor parking).
    - Energized outlets for Level 2 charging or higher must be installed to service at least 25% of all required off-street parking spaces (excluding visitor parking).
- General Requirements for EV Parking Spaces:
    - Outlets must be labelled for their intended use and located within 3 meters of the associated parking space.
    - Parking spaces with EV charging must be clearly labelled and signed as “electric vehicle only.”

These requirements are designed so that new developments include provisions for EV adoption within parking infrastructure.

E.5 - Summary of Policies

Table E- 1 provides a summary of the relevant federal, provincial, regional, and municipal policies.

Table E- 1: Mode Share Objectives, Targets, and Municipal EV Readiness Policies

Scenario	Canada / Province	Regional (FVRD)	Abbotsford	Chilliwack
EV Sales Targets	**Federal**: 20% by 2026, 60% by 2030, and 100% by 2035. (**Under review as of 10/2025**) **Provincial**: CleanBC Plan: 26% by 2026, 90% by 2030, 100% by 2035	-	-	-
Sustainable Transportation Mode Share	Provincial: 30% by 2030, 40% by 2040 and 50% by 2050	District of Hope 50% by 2040 (ITMP 2025) BC Transit mode share target 4% by 2038	25% by 2040 (TTMP)	25% by 2040, 40% by 2050 (ATP)
VKT and GHG Reductions (Community)	Provincial: Reduce distance travelled in LDV by 25% by 2030 compared to 2020	40% reduction in transportation GHGs by 2030 (over 2007 levels)	40% reduction in GHGs by 2030	40% reduction in GHGs by 2030
Carbon Neutrality	2050	-	2050	2050
EV Ready Requirements	Provincial: In 2023, new regulations under the Electric Vehicle Charging and Electric Management Regulation (Bill 22:	100% of required parking spaces for new dwelling units (excluding visitor parking spaces) must include an energized outlet capable of providing L2 charging for an EV (20% of commercial spaces).	**Residential principal uses with separate private parking space**: one energized outlet capable of Level 2 Charging or higher shall be provided for each dwelling unit that has required parking spaces. **Residential principal use (except supported housing), with**	**Single Detached Dwellings & Duplexes**: At least one off-street parking space must be equipped with an energized outlet capable of delivering Level 2 charging or higher

Scenario	Canada / Province	Regional (FVRD)	Abbotsford	Chilliwack
	Strata Property Amendment Act) were enacted to simplify EV charging in strata properties by enabling majority votes over certain decisions, limiting unreasonable refusals and allowing up to five years of exclusive parking stall use for owner-funded EV charging.		**common parking area:** all required parking spaces for dwelling units are required to have raceways conduit, with drawstrings capable of providing Level 2 Charging or higher, including electrical equipment; and all required parking spaces or 1 per dwelling unit, whichever is less, are required to have an adjacent energized charging outlet capable of providing Level 2 charging or higher. **Visitor parking:** 20% of parking spaces required for residential visitor parking, and no less than one parking space if residential visitor parking is provided, are each required to have an adjacent energized charging outlet capable of providing Level 2 Charging or higher.	(including all necessary electrical equipment). **Townhouses:** Each townhouse unit must have at least one required off-street parking space (excluding visitor parking) equipped with an energized outlet for Level 2 charging or higher. **Apartments:** • Raceways or conduit (with drawstrings) capable of providing Level 2 charging or higher must be installed to service all required off-street parking spaces (excluding visitor parking). • Energized outlets for Level 2 charging or higher must be installed to service at least 25% of all required off-street parking spaces (excluding visitor parking).

Appendix F: Modelling Methodology

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F.1 - Input Data

The primary data sources used in the present work are listed in **Table F - 1.**

Table F - 1: Primary Data Sources

Input	Data Source	Comment
FVRD demographics	Fraser Valley Regional District	Population estimates (2021, 2030 2040 and 2050) are based on the 2022 mid-year population figures from BC Stats.
Vehicle population data	Insurance Corporation of British Columbia (ICBC)	Data ranging from 2020 to 2024 were considered in the analyses.
Total distance travelled	2015 Metro Vancouver MOVES model	Data attributes were used solely to provide a measure of the average yearly distance travelled per vehicle class.
Average vehicle consumption rates	1) NRCan's Fuel consumption ratings tool 2) TransLink BEB consumption data 3) Renewable natural gas as a complementary solution to decarbonizing transit, by CUTRIC	NRCan's Fuel consumption rates considering all available vehicles from model year 2015 to model year 2026 were considered. TransLink's BEB average between best case (0.8kWh/km) and worst case (2.5kWh/km) is assumed. CUTRIC's average of five transit agencies.
Carbon intensity factors (CIs)	1) Clean Fuels Regulation (CFR) 2) National Inventory Report (NIR) 3) 2025 Biofuels in Canada, by Navius Research	Sources were used to gather the CIs of typical BC fuel blends and mandates related to minimum renewable content.
Existing EV charging station data	NRCan's Electric Charging and Alternative Fueling Stations Locator	Existing chargers and ports for each charger type (L2 and Fast DC) were gathered for each community.

Required EV-to-charger port ratios	2022 Canada's Public Charging Infrastructure Needs, by Dunsky	Required ratios of EV-to-charger projected in the range 2025-2050, with five-year intervals. Data includes L2 and Fast DC charger breakdown, as well as two scenarios: high and low access to home charging.

F.2 - Vehicle Population

Vehicle population projections are estimated based on regional demography. The FVRD provided WSP with demographic numbers including population projections in each community of interest for the years 2021, 2030, 2040 and 2050. The population in each intermediate year is estimated by interpolating the fixed values provided by FVRD. Therefore, WSP used population estimates for the entire analysis horizon (2025-2050).

The number of vehicles per capita in each community of interest is calculated using the vehicle population data from ICBC and the population projection figures provided by FVRD. The 2024 data (last year available in the ICBC dataset) was used as a baseline for this calculation. Moreover, the calculation is broken down per vehicle class. Therefore, for each vehicle class, the number of vehicles per person is assumed to be fixed to 2024 ratios for the entire analysis horizon.

Effort was employed in looking at specific vehicle models when classifying a given vehicle. However, this information was not always available. Therefore, a map between the vehicle classification scheme in the ICBC data (based on vehicle body type) and the vehicle classification scheme in this work was developed:

- LDV-PASS or LDV-COMM: Fourdoorcoupe, Fourdoorfastback, Fourdoorhardtop, Fourdoorsedan, Fourdoorstationwagon, Fourdoorconvertible, Hatchback, Limousinecommercial, Twodoorconvertible, Twodoorcoupe, Twodoorfastback, Twodoorhardtop, Twodoorsedan, Twodoorstationwagon, Sportconvertible, Taxi, Hearse, Limousinepassenger, Clubwagon, Concession, Crewbus, Crewcab, Forklift, Ladder, Mower, Panel, Pickup, Skidder, Smallbusfreighter, Van, Windowvan, Crummy, Lowspeedvehicle, Icesurfacer, Lowspeed, Sedandelivery, Stake, Bus
- HDV-PASS or HDV-COMM: Ambulance, Amphibiousvehicle, Armouredcar, Backhoe, Backhoeloader, Box, Bulkcarrier, Bulldozer, Busfreighter, Cabover, Cementmixer, Crane, Digger, Drill, Dualpurpose, Dump, Emergency, Excavator, Fire, Flatdeck, Garbage, Giraffe, Grader, Handydart, Lifter, Loader, Loggingtruck, Packer, Pallet, Paver, Pumper, Roller, Snowblower, Sweeper, Tank, Towcar, Tractor, Truck, Truckster, Trucktractor, Utility, Welder, Workutilityindustrial, Wrecker, Spreader, Compressor, Doubledeckerbus, Schoolbus
- Transit Bus: Publictransitbus

A binary data attribute (passenger/commercial) present in the ICBC data was used to distinguish between LDV-PASS and LDV-COMM and between HDV-PASS and HDV-COMM.

The total vehicle population projection for each class is estimated by multiplying the 2024 number of vehicles per capita by the projected population for any given year in the analysis.

The average fleet age is calculated and assumed to be constant throughout the analysis horizon. Therefore, new vehicle registrations are calculated accordingly.

The number of new registrations of internal combustion engine (ICE) vehicles is obtained by discounting the assumed EV registrations from the total new vehicle registrations. The ICE registrations are then split

among technologies (e.g. gasoline, diesel) by assuming the 2024 distribution baseline. The share of new gasoline LDV registrations is assumed to decrease by 2% while the share of new gasoline-electric hybrid vehicle registrations is assumed to increase by 2% each year till 2050. As a result, gasoline cars represent approximately 75% of the ICE car population in 2025 while gasoline-electric hybrid cars represent approximately 75% of the ICE car population in 2050.

F.3 - Total Distance Travelled (Annual VKTs)

The 2015 Metro Vancouver MOVES model is used to calculate the average annual distances travelled considering each vehicle class. The ratio between the total fleet distance and the vehicle population was calculated for this purpose. The dataset provides projections for 2020, 2025, 2030 and 2035. Therefore, the analysis considered linear interpolations between 2025 and 2035 and assumed the 2035 values to remain constant throughout the 2035-2050 range.

A map between the vehicle classification scheme in the MOVES model and the vehicle classification scheme in this work was developed as below:

- LDV-PASS: Passenger Car and Passenger Truck
- LDV-COMM: Light Commercial Truck
- HDV-PASS: Passenger Truck
- HDV-COMM: Refuse Truck, Single Unit Short-Haul Truck, Single Unit Long-Haul Truck, Combination Short-Haul Truck and Combination Long-Haul Truck
- Transit Bus: Transit Bus

Weighted averages considering the relative population of each individual class are considered. For example, the average LDV-PASS annual distance is calculated averaging the Passenger Car and the Passenger Truck classes with weights equal to their respective vehicle populations.

F.4 - Annual Fuel Consumption

Since GHG emissions are affected differently by vehicles using different fuels, vehicle subclasses were considered when calculating the annual fuel consumption. Except for “Transit Bus”, all classes were broken down into six subclasses: gasoline, gasoline-electric hybrid, diesel, CNG, ethanol and electricity. For example, the LDV-PASS class is further broken into:

- LDV-PASS-GASOLINE
- LDV-PASS-GAS-ELEC-HYB
- LDV-PASS-DIESEL
- LDV-PASS-CNG
- LDV-PASS-ETHANOL
- LDV-PASS-ELECTRICITY

The LDV-COMM, HDV-PASS and HDV-COMM were broken down similarly. The data on the Transit Bus class, however, required a smaller number of subclasses as shown below:

- HDV-BUS-DIESEL
- HDV-BUS-CNG
- HDV-BUS-ELECTRICITY

The annual fuel consumption for each subclass is calculated by multiplying the total distance travelled and the fuel consumption rate for the respective subclass.

Except for the Transit Bus class, fuel consumption rates were obtained from NRCan’s “Fuel consumption ratings search tool”. WSP retrieved fuel consumption data for thousands of vehicle models manufactured from 2015 to 2026. In most cases, the trend in fuel consumption rates were linearly extrapolated until the analysis horizon of 2050. Some adjustments to the input data were made to fix gaps and remove outliers:

- Cars using CNG were ignored as the dataset only displayed a single vehicle, and this vehicle is dual fuel.
- Consumption rates for cars powered by Ethanol for year model 2023 were classified as outliers and removed.
- Trends in the consumption rate of diesel-powered cars are disregarded. Instead, the 2019 average value is propagated throughout 2050. This is done because the dataset showed no such vehicles manufactured after 2019.
- Trends in the consumption rate of ethanol-powered cars are disregarded. Instead, the 2015-2020 average value is propagated throughout 2050. This is done because the dataset showed no such vehicles manufactured after 2020.

- Where gaps were present, CNG cars and trucks are assumed to consume 20% more than their diesel counterparts.

The fuel consumption rates of diesel and CNG buses were retrieved from the 2022 CUTRIC's Renewable natural gas as a complementary solution to decarbonizing transit report. It features averages considering five transit agencies, including TransLink. The reported average consumption is 57L/100km for diesel buses and 64 DLE/100km for CNG buses. These averages were propagated throughout the analysis horizon.

The consumption rates of battery electric buses were considered the average between the best case (0.8kWh/km) and worst case (2.5kWh/km) for TransLink vehicles, which results in 1.65 kWh/km and was propagated throughout the analysis horizon.

F.5 - Annual GHG Emissions

The annual GHG emissions are calculated by multiplying the total fuel consumption by the respective fuel carbon intensities (CIs). Typical market fuel/biofuel blends, provincial mandates and the Clean Fuel Regulation (CFR) mandates were considered in this analysis. Life-cycle CIs capturing emissions to both produce and consume the fuel (including electricity) are captured in this work.

The primary fuels have CIs and energy density values shown in **Table F - 2**.

Table F - 2: Carbon Intensity and Energy Density of Primary Fuels

Fuel	CI (gCO_2/MJ)	En. Density (MJ/L)
Diesel	95	38.4
Biodiesel	13	35.2
Gasoline	95	34.7
Ethanol	13	23.4
CNG	72	38.4
Electricity	5	N/A

Following Navius Research's 2025 Biofuels in Canada, typical gasoline in British Columbia (BC) is considered as a blend of 88.6% gasoline and 11.4% ethanol. Similarly, diesel is considered as a blend of 68.9% fossil-based diesel and 31.1% biogenic diesel. As a result, the BC fuel blends have the CI and energy density values shown in Table F - 3.

Table F - 3: Carbon Intensity and Energy Density of BC Fuel Blends

Fuel	CI (gCO_2/MJ)	En. Density (MJ/L)	Volumetric CI (gCO_2/L)
Diesel	69.5	37.4	2,600
Gasoline	85.6	33.4	2,861
CNG	72.0	38.4	2,765
Ethanol	12.7	30.0	381
Electricity	5.0	N/A	N/A

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Appendix G: LDV EV Population Projections

Table G - 1: Scenario 0 EV Population Projections by Community

Community	2025	2030	2035	2040	2045	2050
Abbotsford	5,762	12,641	19,188	26,212	33,606	41,610
Chilliwack	3,172	8,256	13,366	18,827	24,592	30,883
Mission	1,426	3,559	5,629	7,806	10,337	13,096
Hope	137	452	700	941	1,212	1,494
Kent	209	587	913	1,227	1,582	1,950
Harrison Hot Springs	102	288	459	632	808	992
Electoral Areas and FN	303	865	1,409	1,973	2,473	3,000
ALL FVRD	11,110	26,648	41,663	57,618	74,609	93,025

Table G - 2: Scenario 1 EV Population Projections by Community

Community	2025	2030	2035	2040	2045	2050
Abbotsford	5,762	20,686	45,938	68,898	84,294	95,542
Chilliwack	3,172	13,836	32,664	50,001	61,913	70,911
Mission	1,426	5,930	13,675	20,665	25,966	30,011
Hope	137	777	1,710	2,495	3,050	3,432
Kent	209	992	2,224	3,249	3,977	4,475
Harrison Hot Springs	102	489	1,125	1,680	2,034	2,280
Electoral Areas and FN	303	1,467	3,467	5,256	6,243	6,908
ALL FVRD	11,110	44,177	100,803	152,245	187,477	213,558

Table G - 3: Scenario 2 EV Population Projections by Community

Community	2025	2030	2035	2040	2045	2050
Abbotsford	5,762	27,836	66,250	100,534	123,487	140,216
Chilliwack	3,172	18,796	47,289	73,084	90,780	104,120
Mission	1,426	8,038	19,777	30,190	38,066	44,061
Hope	137	1,066	2,479	3,648	4,473	5,040
Kent	209	1,353	3,220	4,749	5,830	6,570
Harrison Hot Springs	102	667	1,630	2,456	2,983	3,348
Electoral Areas and FN	303	2,003	5,027	7,687	9,155	10,144
ALL FVRD	11,110	59,759	145,671	222,348	274,774	313,497

Table G - 4: Scenario 3 EV Population Projections by Community

Community	2025	2030	2035	2040	2045	2050
Abbotsford	5,762	38,562	78,722	107,914	127,872	142,831
Chilliwack	3,172	26,236	56,088	78,249	93,827	105,925
Mission	1,426	11,200	23,477	32,360	39,344	44,817
Hope	137	1,500	2,961	3,928	4,636	5,136
Kent	209	1,893	3,833	5,103	6,036	6,690
Harrison Hot Springs	102	934	1,936	2,633	3,085	3,408
Electoral Areas and FN	303	2,806	5,963	8,228	9,469	10,327
ALL FVRD	11,110	83,131	172,980	238,416	284,271	319,134

Appendix H: GHG Reduction Summary

Table H-1: Fraser Valley Regional District GHG Reduction Summary

	Scenario 0		Scenario 1		Scenario 2		Scenario 3	
	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction
2020	970.4606	-5%	970.4606	-5%	970.4606	-5%	970.4606	-5%
2021	1013.944	0%	1013.944	0%	1013.944	0%	1013.944	0%
2022	1016.433	0%	1016.433	0%	1016.433	0%	1016.433	0%
2023	1027.303	1%	1027.303	1%	1027.303	1%	1027.303	1%
2024	1036.604	2%	1036.604	2%	1036.604	2%	1036.604	2%
2025	997.2848	-2%	997.1541	-2%	996.7621	-2%	996.1089	-2%
2026	991.9456	-2%	987.1693	-3%	982.4737	-3%	975.7755	-4%
2027	986.8246	-3%	973.2615	-4%	960.721	-5%	942.5113	-7%
2028	976.4996	-4%	950.5956	-6%	927.1876	-9%	892.7817	-12%
2029	967.4105	-5%	925.9273	-9%	888.9071	-13%	834.0403	-18%
2030	955.2949	-6%	895.7531	-12%	842.8631	-17%	764.1517	-25%
2031	947.493	-7%	866.9697	-15%	797.4099	-22%	703.2608	-31%
2032	937.6691	-8%	834.0622	-18%	747.5363	-26%	645.9396	-36%
2033	927.3397	-9%	798.7327	-21%	694.9112	-32%	592.7656	-42%
2034	917.9655	-10%	762.831	-25%	641.5324	-37%	544.9206	-46%
2035	910.29	-10%	726.587	-29%	587.1529	-42%	501.0829	-51%
2036	904.8371	-11%	696.144	-32%	540.299	-47%	463.4101	-54%
2037	901.6108	-11%	670.8831	-34%	500.0058	-51%	431.1173	-58%
2038	899.5913	-11%	649.284	-36%	464.4826	-54%	402.6345	-60%
2039	889.9138	-12%	624.9701	-39%	429.2608	-58%	374.2076	-63%
2040	886.7894	-13%	607.9365	-40%	401.2848	-61%	351.9047	-65%
2041	882.5403	-13%	592.4741	-42%	376.3575	-63%	332.0786	-67%
2042	877.9479	-14%	578.4139	-43%	353.6587	-65%	313.9763	-69%
2043	873.4756	-14%	566.4923	-44%	334.1756	-67%	298.5771	-71%
2044	868.8109	-15%	556.0144	-45%	316.979	-69%	285.0377	-72%
2045	862.8418	-15%	545.4955	-46%	300.3362	-70%	271.7101	-73%
2046	856.3164	-16%	536.7339	-47%	286.9216	-72%	261.2623	-74%
2047	853.4126	-16%	530.8004	-48%	275.3923	-73%	252.3093	-75%
2048	846.6991	-17%	523.8307	-48%	264.7374	-74%	244.0655	-76%
2049	843.7977	-17%	519.7902	-49%	256.0272	-75%	237.4235	-77%
2050	838.3513	-18%	515.2957	-49%	248.327	-76%	231.6131	-77%

Table H- 2: Abbotsford GHG Reduction Summary

	Scenario 0		Scenario 1		Scenario 2		Scenario 3	
	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction
2020	449.2006	-5%	449.2006	-5%	449.2006	-5%	449.2006	-5%
2021	470.8341	0%	470.8341	0%	470.8341	0%	470.8341	0%
2022	472.2751	0%	472.2751	0%	472.2751	0%	472.2751	0%
2023	478.5212	1%	478.5212	1%	478.5212	1%	478.5212	1%
2024	479.3392	1%	479.3392	1%	479.3392	1%	479.3392	1%
2025	462.8695	-2%	462.7376	-2%	462.3419	-2%	461.6824	-2%
2026	460.9513	-2%	458.7248	-3%	456.2924	-3%	452.9899	-4%
2027	459.2917	-3%	453.1181	-4%	447.1427	-5%	438.7827	-7%
2028	455.2417	-4%	443.5298	-6%	432.7344	-8%	417.2496	-12%
2029	451.8003	-4%	433.09	-8%	416.311	-12%	391.8083	-17%
2030	446.9691	-5%	420.1973	-11%	396.4361	-16%	361.42	-23%
2031	443.3851	-6%	407.4997	-14%	376.5669	-20%	334.9155	-29%
2032	438.6974	-7%	392.8352	-17%	354.6145	-25%	309.8	-34%
2033	434.0425	-8%	377.4029	-20%	331.7485	-30%	286.7448	-39%
2034	429.7138	-9%	361.7122	-23%	308.5809	-35%	266.0379	-44%
2035	426.2902	-10%	346.0295	-27%	285.1219	-40%	247.1736	-48%
2036	423.9197	-10%	332.9222	-30%	264.9669	-44%	231.0139	-51%
2037	422.5483	-11%	322.0961	-32%	247.694	-48%	217.2291	-54%
2038	421.8084	-11%	312.9316	-34%	232.5404	-51%	205.1418	-57%
2039	417.4987	-12%	302.3418	-36%	217.2731	-54%	192.843	-59%
2040	416.2805	-12%	295.1735	-37%	205.4254	-57%	183.4795	-61%
2041	414.4463	-12%	288.6157	-39%	194.8753	-59%	175.1681	-63%
2042	412.5881	-13%	282.7394	-40%	185.3295	-61%	167.6367	-65%
2043	410.7167	-13%	277.7708	-41%	177.1958	-62%	161.3011	-66%
2044	408.7896	-13%	273.4542	-42%	170.0816	-64%	155.7996	-67%
2045	406.204	-14%	268.9592	-43%	162.9981	-65%	150.1749	-68%
2046	403.4573	-15%	265.4012	-44%	157.5658	-67%	146.0579	-69%
2047	402.462	-15%	263.1723	-44%	152.9964	-68%	142.6267	-70%
2048	399.7753	-15%	260.482	-45%	148.8186	-68%	139.5183	-70%
2049	398.836	-16%	259.1221	-45%	145.5203	-69%	137.1368	-71%
2050	396.7317	-16%	257.5444	-45%	142.6754	-70%	135.1332	-71%

Table H - 1: Chilliwack GHG Reduction Summary

	Scenario 0		Scenario 1		Scenario 2		Scenario 3	
	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction	kg CO2e	% Reduction
2020	288.9672	-4%	288.9672	-4%	288.9672	-4%	288.9672	-4%
2021	301.8991	0%	301.8991	0%	301.8991	0%	301.8991	0%
2022	301.32	0%	301.32	0%	301.32	0%	301.32	0%
2023	302.7645	0%	302.7645	0%	302.7645	0%	302.7645	0%
2024	318.3421	6%	318.3421	6%	318.3421	6%	318.3421	6%
2025	305.7346	1%	305.7337	1%	305.7311	1%	305.7268	1%
2026	304.2911	1%	302.8126	0%	301.494	0%	299.5214	-1%
2027	302.8208	0%	298.5357	-1%	294.7216	-2%	289.0095	-4%
2028	299.7099	-1%	291.4754	-3%	284.1521	-6%	273.1776	-9%
2029	296.9629	-1%	283.7397	-6%	271.9853	-10%	254.3635	-16%
2030	293.2597	-3%	274.2196	-9%	257.297	-15%	231.9225	-23%
2031	291.5719	-3%	265.5349	-12%	243.0104	-19%	212.4282	-30%
2032	289.3341	-4%	255.5554	-15%	227.3095	-25%	194.1634	-36%
2033	286.772	-5%	244.5772	-19%	210.489	-30%	177.085	-41%
2034	284.5427	-6%	233.3601	-23%	193.3373	-36%	161.7014	-46%
2035	282.78	-6%	221.9102	-26%	175.7246	-42%	147.5563	-51%
2036	281.7337	-7%	212.3579	-30%	160.575	-47%	135.4263	-55%
2037	281.3967	-7%	204.4833	-32%	147.5485	-51%	125.0284	-59%
2038	281.4023	-7%	197.7735	-34%	136.0567	-55%	115.852	-62%
2039	278.9803	-7%	190.2816	-37%	124.7829	-59%	106.8108	-65%
2040	278.5918	-8%	185.0482	-39%	115.7404	-62%	99.62953	-67%
2041	277.7051	-8%	180.2677	-40%	107.6796	-64%	93.24086	-69%
2042	276.6384	-8%	175.9119	-42%	100.3324	-67%	87.40264	-71%
2043	275.6359	-9%	172.2671	-43%	94.03222	-69%	82.43943	-73%
2044	274.5503	-9%	169.0848	-44%	88.47146	-71%	78.07532	-74%
2045	273.0788	-9%	165.9683	-45%	83.19403	-72%	73.88447	-75%
2046	271.3623	-10%	163.3389	-46%	78.85943	-74%	70.51822	-77%
2047	270.7745	-10%	161.6062	-46%	75.12798	-75%	67.62971	-78%
2048	268.915	-11%	159.5264	-47%	71.68207	-76%	64.97136	-78%
2049	268.2959	-11%	158.4014	-47%	68.86468	-77%	62.82983	-79%
2050	266.8449	-11%	157.1314	-48%	66.37732	-78%	60.95859	-80%

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Appendix I: Canada Wide Projected Charger Needs

Table I - 1: Canada-wide projected charger infrastructure needs and ratios until 2050

		2025	2030	2035	2040	2045	2050
Scenario 1: High access to home charging	DCFC Ports	3,000	11,600	28,200	44,500	55,500	60,900
	ZEVs / DCFC	240	300	340	370	400	430
	Level 2 Ports	48,000	181,000	410,000	593,000	673,000	658,000
	ZEVs / Level 2	21	26	30	35	40	47
Scenario 2: Low access to home charging	DCFC Ports	3,000	12,000	30,000	49,400	65,300	76,800
	ZEVs / DCFC	310	300	310	330	330	340
	Level 2 Ports	49,000	186,000	436,000	659,000	791,000	830,000
	ZEVs / Level 2	21	25	28	31	34	37

Appendix J: Charging Port Gaps by Municipality

Table J- 1: Low Adoption Scenario - L2 Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	146	668	1,403	1,841	1,979	1,905	146	699	1,513	2,095	2,351	2,454
Chilliwack	75	456	1,013	1,353	1,472	1,433	75	477	1,091	1,537	1,745	1,841
Harrison Hot Springs	0	4	22	33	36	34	0	5	25	39	45	47
Hope	1	24	51	65	70	67	1	25	55	74	84	87
Kent	8	36	72	91	97	93	8	38	77	103	115	119
Mission	40	200	428	562	621	611	40	209	460	639	736	783
Unincorporated Areas	8	50	110	144	150	141	8	53	118	164	178	181
Fraser Valley Regional District	278	1,438	3,099	4,089	4,425	4,284	278	1,506	3,339	4,651	5,254	5,512

Table J- 2: Low Adoption Scenario – DC Fast Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	0	2	68	119	144	155	0	2	81	142	188	214
Chilliwack	0	0	50	89	109	119	0	0	59	106	142	163
Harrison Hot Springs	0	2	3	5	5	5	0	2	4	5	6	7
Hope	0	0	0	0	0	0	0	0	0	0	0	0
Kent	0	0	3	5	6	6	0	0	3	6	8	9
Mission	0	0	18	34	43	48	0	0	22	41	57	66
Unincorporated Areas	0	0	0	2	4	4	0	0	0	4	7	8
Fraser Valley Regional District	0	4	142	254	311	337	0	4	169	304	408	467

Table J- 3: Medium Adoption Scenario – L2 Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	146	943	2,080	2,744	2,959	2,855	146	985	2,238	3,115	3,504	3,662
Chilliwack	75	647	1,500	2,012	2,193	2,139	75	676	1,613	2,282	2,594	2,738
Harrison Hot Springs	0	11	39	55	60	56	0	12	43	64	73	75
Hope	1	35	77	98	106	101	1	37	83	112	126	130
Kent	8	50	105	134	144	138	8	52	113	151	169	176
Mission	40	281	631	835	924	909	40	294	678	946	1,092	1,163
Unincorporated Areas	8	71	162	214	223	210	8	74	174	242	263	268
Fraser Valley Regional District	278	2,038	4,594	6,092	6,609	6,408	278	2,130	4,942	6,912	7,821	8,212

Table J- 4: Medium Adoption Scenario – DC Fast Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	0	26	128	205	242	259	0	26	147	238	307	345
Chilliwack	0	17	93	152	181	196	0	17	107	175	229	260
Harrison Hot Springs	0	2	5	7	7	8	0	2	5	7	9	10
Hope	0	0	0	0	0	0	0	0	0	0	0	0
Kent	0	1	5	9	11	11	0	1	6	10	14	15
Mission	0	5	36	60	73	80	0	5	42	69	93	108
Unincorporated Areas	0	0	3	9	11	12	0	0	4	11	16	18
Fraser Valley Regional District	0	51	270	442	525	566	0	51	311	510	668	756

Table J- 5: High Adoption Scenario – L2 Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	146	1,355	2,496	2,955	3,069	2,911	146	1,414	2,683	3,353	3,633	3,732
Chilliwack	75	933	1,794	2,160	2,270	2,178	75	973	1,927	2,448	2,684	2,787
Harrison Hot Springs	0	21	50	60	62	58	0	22	54	70	76	77
Hope	1	52	93	106	110	103	1	54	100	121	130	133
Kent	8	71	126	144	149	140	8	74	135	163	176	179
Mission	40	403	755	897	956	926	40	420	810	1,016	1,129	1,183
Unincorporated Areas	8	102	193	229	231	214	8	106	207	259	273	273
Fraser Valley Regional District	278	2,937	5,507	6,551	6,847	6,530	278	3,063	5,916	7,430	8,101	8,364

Table J- 6: High Adoption Scenario – DC Fast Charger Port Gap

Community	High Access to Home Charging						Low Access to Home Charging					
	2025	2030	2035	2040	2045	2050	2025	2030	2035	2040	2045	2050
Abbotsford	0	62	165	225	253	265	0	62	187	260	320	353
Chilliwack	0	41	119	165	189	200	0	41	135	191	238	266
Harrison Hot Springs	0	3	6	7	8	8	0	3	6	8	9	10
Hope	0	0	0	0	0	0	0	0	0	0	0	0
Kent	0	2	7	10	11	12	0	2	8	11	14	16
Mission	0	15	47	65	76	82	0	15	54	76	97	110
Unincorporated Areas	0	0	6	10	12	12	0	0	7	13	17	18
Fraser Valley Regional District	0	123	350	482	549	579	0	123	397	559	695	773

Appendix K: Zoning Harmonization Assumptions

Table K- 1: FVRD Electoral Area Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	Harmonized Region-Wide Reclassification
AG-1	Agricultural	Agriculture
AG-2	Agricultural	Agriculture
AG-3	Agricultural	Agriculture
AG-4	Agricultural	Agriculture
AG-5	Agricultural	Agriculture
ALP-1	seasonal or year-round Residential Use	Single Family
ALP-2	seasonal or year-round Residential Use	Single Family
ALP-3	seasonal or year-round Residential Use	Single Family
ALP-4	multi-family Residential Use and Temporary Tourist Accommodation	Multi Family
ALP-5	multi-family Residential Use and Temporary Tourist Accommodation	Multi Family
ASL	Alpine Ski Lodge.	Commercial
C-1	Commercial	Commercial
C-2	Commercial	Commercial
C-3	Commercial	Commercial
C-4	Commercial	Commercial
C-5	Commercial	Commercial
CA	Civic Assembly	Institutional
CD-1	Comprehensive Development Zones	Comprehensive Development Zones
CEM	Cemeteries	Park & Rural
CHP	Campground Holiday Park	Park & Rural

Zoning	Full Name	Harmonized Region-Wide Reclassification
CIV	The Civic Institutional (CIV) zone is for Residential uses, with certain site-specific Community Care uses.	Single Family
FP	Film Production	Commercial
GC	Gateway Commercial	Commercial
GI	General Industrial	Industrial
HC-1	Highway Commercial	Commercial
HC-2	Highway Commercial	Commercial
HC-3	Highway Commercial	Commercial
HI	Heavy Industrial	Industrial
LU	Limited Use - Cemetery, Farm	Park & Rural
MHP	MANUFACTURED HOME PARK	Single Family
OR	Outdoor Recreation	Commercial
P-1	Park	Park & Rural
P-2	Park	Park & Rural
P-3	LANDFILL LANDS	Industrial
P-4	INSTIUTIONAL SERVICE AND MANAGEMENT	Institutional
P-5	INSTIUTIONAL COMMUNITY	Institutional
P-6	WATERFRONT COMMERCIAL	Commercial
PR	Reserve	Municipal Reserve
PRD-1	PRIVATE RESIDENTIAL DEVELOPMENT - one unit	Single Family
PRD-2	PRIVATE RESIDENTIAL DEVELOPMENT - one unit	Single Family

Zoning	Full Name	Harmonized Region-Wide Reclassification
PRD-3	PRIVATE RESIDENTIAL DEVELOPMENT - one unit	Single Family
PRD-4	PRIVATE RESIDENTIAL DEVELOPMENT - One (1) dwelling unit per 140.0 m² of lot area to a maximum of 25 dwelling units per lot	Multi Family
PRE	Private Resort	Mixed Use
R-1	Rural Residential; Farm;	Park & Rural
R-2	Rural Residential; Farm;	Park & Rural
R-3	Rural Residential; Farm;	Park & Rural
R-4	Rural Residential; Farm;	Park & Rural
R-5	Rural Residential; Farm;	Park & Rural
R-6	Rural Residential; Farm;	Park & Rural
R-7	Rural Residential; Farm;	Park & Rural
REC	Residential Use, Farm, and Outdoor Recreation	Park & Rural
RI-1	Farm use and Resource Extraction	Industrial
RI-2	Resource Extraction including Gravel Processing and Log Storage.	Industrial
RR	Park Reserve	Park & Rural
RR-1	Rural, Farm, Institutional, and Residential Use	Park & Rural
RR-2	Rural, Farm, Institutional, and Residential Use	Park & Rural
RRA	The Residential and Recreational Assembly	Park & Rural
RST-1	Resort Residential	Mixed Use
RST-2	Resort Residential	Mixed Use
RU	Municipal Reserve	Municipal Reserve

Zoning	Full Name	Harmonized Region-Wide Reclassification
SBR-1	Suburban Residential	Single Family
SBR-2	Suburban Residential	Single Family
SBR-3	Suburban Residential	Single Family
SI	Service Industrial	Industrial
TC	Tourist Commercial	Commercial
TCG-1	Tourist Campground	Commercial
TCG-2	Tourist Campground	Commercial
UR-1	Urban Residential - one to 2 units per lot	Single Family
UR-2	Urban Residential - one unit	Single Family
UR-3	Urban Residential - one to 2 units per lot	Single Family
VR	Vehicle Recycling	Industrial

Table K- 2: Hope Area Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
AG-1	Agricultural	Agriculture
AP-1	Airpark	Park & Rural
C-1	Local Commercial	Commercial
C-2	Highway Commercial	Commercial
C-3	Regional Commercial	Commercial
C-4	Neighbourhood Public House	Commercial
C-5	Commercial Transition	Commercial
CBD	Downtown Commercial	Mixed Use
CD-10	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
CD-11	Comprehensive Development Zones	Comprehensive Development Zones
CD-2	Comprehensive Development Zones	Comprehensive Development Zones
CD-3	Comprehensive Development Zones	Comprehensive Development Zones
CD-4	Comprehensive Development Zones	Comprehensive Development Zones
CD-5	Comprehensive Development Zones	Comprehensive Development Zones
CD-6	Comprehensive Development Zones	Comprehensive Development Zones
CD-7	Comprehensive Development Zones	Comprehensive Development Zones
CD-8	Comprehensive Development Zones	Comprehensive Development Zones
CD-9	Comprehensive Development Zones	Comprehensive Development Zones
CHP-1	Campground and Holiday Park	Park & Rural
CR-1	Country Residential	Single Family
I-1	Heavy Industrial	Industrial
I-2	Light/Service Industrial	Industrial
I-4	Vehicle Wrecking	Industrial
I-5	Heliport	Industrial
I-6	Water Industrial	Industrial
L-1	Rural zone - Limited Use	Park & Rural
MHP-1	Mobile Home Park	Single Family
P-1	Parks and Recreation	Park & Rural

Zoning	Full Name	WSP Class
P-2	Institutional	Institutional
RM-1	Multiple Family Residential	Multi Family
RM-2	Ground Oriented Multiple Family Residential	Multi Family
RR-1	Resort Rehabilitation	Park & Rural
RRA-1	Residential and Recreational Assembly	Park & Rural
RS-1	Small-Scale Multi-Unit Housing	Single Family
RU-1	Rural	Park & Rural

Table K- 3: Kent Area Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
A	Agricultural	Agriculture
A1	Small Lot Agricultural	Agriculture
A2	Agricultural Commercial	Agriculture
CD1	Comprehensive Development	Comprehensive Development Zones
CD2	Comprehensive Development 2	Comprehensive Development Zones
CD3	Comprehensive Development 3	Comprehensive Development Zones
CD4	Comprehensive Development 4	Comprehensive Development Zones
CH	Highway Commercial	Commercial
CM	Marine Commercial	Commercial
CS1	Service Commercial	Commercial
CS2	Service Station Commercial	Commercial
CS3	Tourist Recreation	Commercial

Zoning	Full Name	WSP Class
CS4	Tourist Accommodation	Commercial
CS5	Lakeside Tourist Accomodation Commercial	Commercial
CT1	Town Centre Commercial	Commercial
CT2	Town Centre Commercial and Residential	Mixed Use
M1	Light Industrial	Industrial
M2	Heavy Industrial	Industrial
M4	Enclosed Storage Industrial	Industrial
MR	Resource Management	Industrial
P1	Institutional	Institutional
P2	Park, Recreation and Open Space	Park & Rural
P3	Institutional Assembly	Institutional
R930	Urban Residential 930 Zone	Single Family
RH	Mobile Home Park	Single Family
RL	Lake Area Residential	Single Family
RM1	Multiple Dwelling Residential 1	Multi Family
RM2	Multiple Dwelling Residential 2	Multi Family
RM4	Affordable Rental Housing	Multi Family
RR1	Rural Residential 1	Single Family
RR2	Rural Residential 2	Single Family
RR3	Rural Residential 3	Single Family
RS1	Single-Dwelling Residential 1	Single Family
RS2	Single-Dwelling Residential 2	Single Family
RSS	Single-Dwelling and Secondary Dwelling Residential	Single Family

Zoning	Full Name	WSP Class
RT	Two-Dwelling Residential	Single Family
RS-GSA	Geologically Sensitive Area (Reserve) (RS-GSA)	Municipal Reserve

Table K- 4: Chilliwack Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
AC	Agricultural Commercial (AC)	Agriculture
AFP	Agricultural Food Processing (AFP)	Agriculture
AL	Agricultural Lowland (AL)	Agriculture
AP	Airport Commercial (AP)	Institutional
AP-1	Airport (AP-1)	Institutional
AR	Agricultural Residential (AR)	Single Family
AS	Agricultural Small Lot (AS)	Agriculture
AU	Agricultural Upland (AU)	Agriculture
C1	Neighbourhood Commercial (C1)	Commercial
C2	Local Commercial (C2)	Commercial
C3	Town Centre Commercial (C3)	Mixed Use
C4	Shopping Centre (Commercial) (C4)	Commercial
C5	Liquor Primary (Commercial) (C5)	Commercial
C6	Theatre Commercial (C6)	Commercial
C7	Liquor Store (Commercial) (C7)	Commercial
C8	Cannabis Retail (Commercial) (C8)	Commercial
C9	(MID RISE APARTMENT COMMERCIAL) ZONE	Mixed Use
CD-1	Comprehensive Development (CD-1)	Comprehensive Development Zones

Zoning	Full Name	WSP Class
CD-10	Comprehensive Development (CD-10)	Comprehensive Development Zones
CD-11	Comprehensive Development (CD-11)	Comprehensive Development Zones
CD-12	Comprehensive Development (CD-12)	Comprehensive Development Zones
CD-13	Comprehensive Development (CD-13)	Comprehensive Development Zones
CD-14	Comprehensive Development (CD-14)	Comprehensive Development Zones
CD-15	Comprehensive Development (CD-15)	Comprehensive Development Zones
CD-16	Comprehensive Development (CD-16)	Comprehensive Development Zones
CD-17	Comprehensive Development (CD-17)	Comprehensive Development Zones
CD-18	Comprehensive Development (CD-18)	Comprehensive Development Zones
CD-19	Comprehensive Development (CD-19)	Comprehensive Development Zones
CD-2	Comprehensive Development (CD-2)	Comprehensive Development Zones
CD-20	Comprehensive Development (CD-20)	Comprehensive Development Zones
CD-21	Comprehensive Development (CD-21)	Comprehensive Development Zones
CD-22	Comprehensive Development (CD-22)	Comprehensive Development Zones
CD-23	Comprehensive Development (CD-23)	Comprehensive Development Zones

Zoning	Full Name	WSP Class
CD-24	Comprehensive Development (CD-24)	Comprehensive Development Zones
CD-25	Comprehensive Development (CD-25)	Comprehensive Development Zones
CD-26	Comprehensive Development (CD-26)	Comprehensive Development Zones
CD-27	Comprehensive Development (CD-27)	Comprehensive Development Zones
CD-28	Comprehensive Development (CD-28)	Comprehensive Development Zones
CD-3	Comprehensive Development (CD-3)	Comprehensive Development Zones
CD-4	Comprehensive Development (CD-4)	Comprehensive Development Zones
CD-5	Comprehensive Development (CD-5)	Comprehensive Development Zones
CD-6	Comprehensive Development (CD-6)	Comprehensive Development Zones
CD-7	Comprehensive Development (CD-7)	Comprehensive Development Zones
CD-8	Comprehensive Development (CD-8)	Comprehensive Development Zones
CD-9	Comprehensive Development (CD-9)	Comprehensive Development Zones
CP	Commercial Parking (CP)	Commercial
CS1	Service Commercial (CS1)	Commercial
CS2	Tourist Commercial (CS2)	Commercial
CSM	Service Commercial Industrial (CSM	Commercial
EV	Ecovillage (Rural) (EV)	Single Family

Zoning	Full Name	WSP Class
HR	Hillside Residential (Rural) (HR)	Single Family
M1	Light Industrial (M1)	Industrial
M1-A	Residential Light Industrial (M1-A)	Single Family
M2	Service Industrial (M2)	Industrial
M3	General Industrial (M3)	Industrial
M4	Heavy Industrial (M4)	Industrial
M5	Industrial Salvage (M5)	Industrial
M6	Special Industrial (M6)	Industrial
Not Zoned	Not Zoned	Not Zoned
OR	Outdoor Recreation (Commercial) (OR)	Commercial
P1	Civic Assembly (Institutional) (P1)	Institutional
P2	Special Institutional (P2)	Institutional
P3	Public Service (Institutional) (P3)	Institutional
P4	Civic Exhibition (Institutional) (P4)	Institutional
P6	University Village (Institutional) (P6)	Institutional
Pending	Pending	Not Zoned
R	Rural (R)	Park & Rural
R1-A	Urban Residential (R1-A)	Single Family
R1-B	Urban Duplex Residential (R1-B)	Single Family
R1-C	Urban Infill (Residential) (R1-C)	Single Family
R2	Urban Residential Transition (R2)	Multi Family
R2-A	Seniors Conversion Housing (Residential) (R2-A)	Single Family
R3	Small Lot Residential (R3)	Single Family

Zoning	Full Name	WSP Class
R3-A	Clustered Residential (R3-A)	Single Family
R4	Low Density Multi-Unit Residential (R4)	Multi Family
R4-A	Medium Density Multi-Unit Residential (R4-A)	Multi Family
R4-B	Low Density Multi-Unit Secondary Suite (R4-B)	Multi Family
R5	Low Rise Apartment (Residential) (R5)	Multi Family
R6	Mid Rise Apartment (Residential) (R6)	Multi Family
R7	Special Service Residential (R7)	Multi Family
R8	Supportive Housing (Residential) (R8)	Multi Family
R9	Affordable Rental Housing (Residential) (R9)	Multi Family
RC	Commercial Conversion (Residential) (RC)	Mixed Use
RH	Rural Hillside (RH)	Park & Rural
RMH	Manufactured Home Park (Residential) (RMH)	Single Family
RNC	Rural Neighbourhood Commercial (RNC)	Commercial
RR	Rural Residential (RR)	Single Family
RS2	Public Use Reserve (RS2)	Municipal Reserve
RS3	Special Jurisdictional (Reserve) (RS3)	Municipal Reserve
RS-CWA	Community Water Supply Area (Reserve) (RS-CWA)	Municipal Reserve
RS-FHA	Flood Hazard Area (Reserve) (RS-FHA)	Municipal Reserve
RS-GRA	Geologically Restricted Area (Reserve) (RS-GRA)	Municipal Reserve
RS-GSA	Geologically Sensitive Area (Reserve) (RS-GSA)	Municipal Reserve
RS-GSA-HCA	Geologically Sensitive Area – Hinkley Creek Area (Reserve) (RS-GSA-HCA)	Municipal Reserve
RS-REM	Remnant (Reserve) (RS-REM)	Municipal Reserve

Zoning	Full Name	WSP Class
RS-WLA	Water Lot Area (Reserve) (RS-WLA)	Municipal Reserve
SCR	Suburban Clustered Residential (Rural) (SCR)	Single Family
SHR	Suburban Hillside Residential (Rural) (SHR)	Single Family
SR	Suburban Residential (Rural) (SR)	Single Family

Table K- 5: Mission Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
A16	Agriculture 16 Zone	Agriculture
A36	Agriculture 36 Zone	Agriculture
A80	Agriculture 80 Zone	Agriculture
CCG	Commercial Community Gaming Zone	Commercial
CD12	Comprehensive Development 12 Zone	Comprehensive Development Zones
CD14	Comprehensive Development 14 Zone	Comprehensive Development Zones
CD17	Comprehensive Development 17 Zone	Comprehensive Development Zones
CD19	Comprehensive Development 19 Zone	Comprehensive Development Zones
CD2	Comprehensive Development 2 Zone	Comprehensive Development Zones
CD20	Comprehensive Development 20 Zone	Comprehensive Development Zones
CD21	Comprehensive Development 21 Zone	Comprehensive Development Zones
CD24	Comprehensive Development 24 Zone	Comprehensive Development Zones

Zoning	Full Name	WSP Class
CD27	Comprehensive Development 27 Zone	Comprehensive Development Zones
CD3	Comprehensive Development 3 Zone	Comprehensive Development Zones
CD30	Comprehensive Development 30 Zone	Comprehensive Development Zones
CD31	Comprehensive Development 31 Zone	Comprehensive Development Zones
CD32	Comprehensive Development 32 Zone	Comprehensive Development Zones
CD37	Comprehensive Development 37 Zone	Comprehensive Development Zones
CD38	Comprehensive Development 38 Zone	Comprehensive Development Zones
CD39	Comprehensive Development 39 Zone	Comprehensive Development Zones
CD4	Comprehensive Development 4 Zone	Comprehensive Development Zones
CD41	Comprehensive Development 41 Zone	Comprehensive Development Zones
CD43	Comprehensive Development 43 Zone	Comprehensive Development Zones
CD44	Comprehensive Development 44 Zone	Comprehensive Development Zones
CD46	Comprehensive Development 46 Zone	Comprehensive Development Zones
CD48	Comprehensive Development 48 Zone	Comprehensive Development Zones
CD49	Comprehensive Development 49 Zone	Comprehensive Development Zones

Zoning	Full Name	WSP Class
CD50	Comprehensive Development 50 Zone	Comprehensive Development Zones
CD52	Comprehensive Development 52 Zone	Comprehensive Development Zones
CD53	Comprehensive Development 53 Zone	Comprehensive Development Zones
CD54	Comprehensive Development 54 Zone	Comprehensive Development Zones
CD59	Comprehensive Development 59 Zone	Comprehensive Development Zones
CD6	Comprehensive Development 6 Zone	Comprehensive Development Zones
CD7	Comprehensive Development 7 Zone	Comprehensive Development Zones
CD9	Comprehensive Development 8 Zone	Comprehensive Development Zones
CGS	Commercial Gas Service Station Zone	Commercial
CH1	Commercial Highway One Zone	Commercial
CH2	Commercial Highway Two Zone	Commercial
CL1	Commercial Local One Zone	Commercial
CM	Commercial Medical Zone	Commercial
COR	Commercial Open Land Recreation Zone	Commercial
CPH	Commercial Neighbourhood Public House Zone	Commercial
CR	Commercial Rural Zone	Commercial
CTR	Commercial Tourist Recreation Zone	Commercial
CVD	Commercial Vehicle Dealership Zone	Commercial
DT1	MissionCity Downtown One Zone	Commercial

Zoning	Full Name	WSP Class
DT2	MissionCity Downtown Two Zone	Commercial
DT3	MissionCity Downtown Three Zone	Commercial
DT4	MissionCity Downtown Four Zone	Commercial
I-5	Institutional Residential Camp Zone	Institutional
IA	Institutional Assembly Zone	Institutional
IC	Institutional Care Zone	Institutional
IE	Institutional Educational Zone	Institutional
INBP1	Industrial Park One Zone	Industrial
ING	Industrial General Zone	Industrial
ING2	Industrial General Two Zone	Industrial
INL1	Industrial Light Impact One Zone	Industrial
INR	Industrial Resource Extraction Zone	Industrial
INRP	Industrial Resource Extraction and Procession Zone	Industrial
INVR	Industrial Motor Vehicle Repair Zone	Industrial
INWM	Industrial Waste Resource Management Zone	Industrial
IPRC	Institutional Parks, Recreation and Civic Zone	Institutional
IU	Institutional Utility Zone	Institutional
MA1	Multi-Unit Apartment One Zone	Multi Family
MA2	Multi-Unit Apartment Two Zone	Multi Family
MB558	Multi-Unit Boarding House 558 Zone	Multi Family
MD465	Multi-Unit Duplex Zone	Single Family
MM1	Mid-Rise Multi-Unit One Zone	Multi Family
MMP	Multi-Unit Manufactured Home Park Zone	Single Family

Zoning	Full Name	WSP Class
MR1	Multi-Unit Rowhouse One Zone	Multi Family
MT1	Multi-Unit Townhouse One Zone	Single Family
MU1	Mixed-Use Commercial Residential One Zone	Mixed Use
MU2	Mixed-Use Commercial/Residential Two Zone	Mixed Use
NC1	Neighbourhood Centre Zone	Mixed Use
R465	Urban Residential 465 Zone	Single Family
R465s	Urban Residential 465 Secondary Dwelling Zone	Single Family
R558	Urban Residential 558 Zone	Single Family
R558s	Urban Residential 558 Secondary Dwelling Zone	Single Family
R669	Urban Residential 669 Zone	Single Family
R930	Urban Residential 930 Zone	Single Family
RR7	Rural Residential 7 Zone	Single Family
RR7s	Rural Residential 7 Secondary Dwelling Zone	Single Family
RU16	Rural 16 Zone	Park & Rural
RU16s	Rural 16 Secondary Dwelling Zone	Park & Rural
RU36	Rural 36 Zone	Park & Rural
RU36s	Rural 36 Secondary Dwelling Zone	Park & Rural
RU80	Rural 80 Zone	Park & Rural
RU80s	Rural 80 Secondary Dwelling Zone	Park & Rural
S10	Suburban 10 Zone	Single Family
S20	Suburban 20 Zone	Single Family
S20s	Suburban 20 Secondary Dwelling Zone	Single Family
SN-1A	Silverdale Neighbourhood 1A Zone	Mixed Use

Zoning	Full Name	WSP Class
UC300	Urban Compact 300 Zone	Single Family
UC372	Urban Compact 372 Zone	Single Family
UC372s	Urban Compact 372 Secondary Dwelling Zone	Single Family
UC465	Urban Compact 465 Zone	Single Family
UC465s	Urban Compact 465 Secondary Dwelling Zone	Single Family

Table K- 6: Abbotsford Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
A1	210 - Agricultural One Zone (A1)	Agriculture
A2	220 - Agricultural Two Zone (A2)	Agriculture
A3	230 - Agricultural and Resource Processing Zone (A3)	Agriculture
A4	240 - Agricultural and Produce Processing Zone (A4)	Agriculture
A5	250 - Agricultural and Farm Industrial Zone (A5)	Agriculture
A6	260 - Agricultural and Commercial Mushroom Composting Zone (A6)	Agriculture
C1	510 - Local Commercial Zone (C1)	Commercial
C2	520 - Neighbourhood Commercial Zone (C2)	Commercial
C3	530 - Community Commercial Zone (C3)	Commercial
C4	540 - Service Commercial Zone (C4)	Commercial
C5	550 - City Centre Commercial Zone (C5)	Mixed Use
C7	570 - Historic Downtown Commercial Zone (C7)	Mixed Use
CAM	585 - Automall Commercial Zone (CAM)	Commercial
CGC	595 - Golf Course Zone (CGC)	Commercial
CGS	580 - Gas Station Commercial Zone (CGS)	Commercial

Zoning	Full Name	WSP Class
CHR	560 - Commercial High Rise Zone (CHR)	Commercial
CR	320 - Country Residential Zone (CR)	Single Family
CRC	590 - Recreation and Campground Zone (CRC)	Commercial
CRZ	547 - Regional Commercial Zone (CRZ)	Commercial
CSC	545 - Secondary Commercial Zone (CSC)	Commercial
H-LU/R-1	Rural area	Park & Rural
I1	610 - Residential Industrial Zone (I1)	Industrial
I2	620 - General Industrial Zone (I2)	Industrial
I3	630 - High Impact Industrial Zone (I3)	Industrial
I4	640 - Airport Zone (I4)	Institutional
I5	650 - Special Industrial Zone (I5)	Industrial
N1	Comprehensive Development Zones	Comprehensive Development Zones
N10	Comprehensive Development Zones	Comprehensive Development Zones
N102	Comprehensive Development Zones	Comprehensive Development Zones
N105	Comprehensive Development Zones	Comprehensive Development Zones
N106	Comprehensive Development Zones	Comprehensive Development Zones
N11	Comprehensive Development Zones	Comprehensive Development Zones
N115	Comprehensive Development Zones	Comprehensive Development Zones
N116	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N14	Comprehensive Development Zones	Comprehensive Development Zones
N15	Comprehensive Development Zones	Comprehensive Development Zones
N16	Comprehensive Development Zones	Comprehensive Development Zones
N17	Comprehensive Development Zones	Comprehensive Development Zones
N18	Comprehensive Development Zones	Comprehensive Development Zones
N19	Comprehensive Development Zones	Comprehensive Development Zones
N2	Comprehensive Development Zones	Comprehensive Development Zones
N21	Comprehensive Development Zones	Comprehensive Development Zones
N22	Comprehensive Development Zones	Comprehensive Development Zones
N23	Comprehensive Development Zones	Comprehensive Development Zones
N24	Comprehensive Development Zones	Comprehensive Development Zones
N25	Comprehensive Development Zones	Comprehensive Development Zones
N26	Comprehensive Development Zones	Comprehensive Development Zones
N29	Comprehensive Development Zones	Comprehensive Development Zones
N30	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N32	Comprehensive Development Zones	Comprehensive Development Zones
N33	Comprehensive Development Zones	Comprehensive Development Zones
N34	Comprehensive Development Zones	Comprehensive Development Zones
N35	Comprehensive Development Zones	Comprehensive Development Zones
N37	Comprehensive Development Zones	Comprehensive Development Zones
N38	Comprehensive Development Zones	Comprehensive Development Zones
N39	Comprehensive Development Zones	Comprehensive Development Zones
N4	Comprehensive Development Zones	Comprehensive Development Zones
N40	Comprehensive Development Zones	Comprehensive Development Zones
N41	Comprehensive Development Zones	Comprehensive Development Zones
N42	Comprehensive Development Zones	Comprehensive Development Zones
N43	Comprehensive Development Zones	Comprehensive Development Zones
N44	Comprehensive Development Zones	Comprehensive Development Zones
N45	Comprehensive Development Zones	Comprehensive Development Zones
N46	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N47	Comprehensive Development Zones	Comprehensive Development Zones
N48	Comprehensive Development Zones	Comprehensive Development Zones
N49	Comprehensive Development Zones	Comprehensive Development Zones
N5	Comprehensive Development Zones	Comprehensive Development Zones
N50	Comprehensive Development Zones	Comprehensive Development Zones
N51	Comprehensive Development Zones	Comprehensive Development Zones
N52	Comprehensive Development Zones	Comprehensive Development Zones
N53	Comprehensive Development Zones	Comprehensive Development Zones
N54	Comprehensive Development Zones	Comprehensive Development Zones
N56	Comprehensive Development Zones	Comprehensive Development Zones
N59	Comprehensive Development Zones	Comprehensive Development Zones
N6	Comprehensive Development Zones	Comprehensive Development Zones
N60	Comprehensive Development Zones	Comprehensive Development Zones
N61	Comprehensive Development Zones	Comprehensive Development Zones
N62	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N64	Comprehensive Development Zones	Comprehensive Development Zones
N66	Comprehensive Development Zones	Comprehensive Development Zones
N67	Comprehensive Development Zones	Comprehensive Development Zones
N68	Comprehensive Development Zones	Comprehensive Development Zones
N69	Comprehensive Development Zones	Comprehensive Development Zones
N7	Comprehensive Development Zones	Comprehensive Development Zones
N70	Comprehensive Development Zones	Comprehensive Development Zones
N71	Comprehensive Development Zones	Comprehensive Development Zones
N72	Comprehensive Development Zones	Comprehensive Development Zones
N74	Comprehensive Development Zones	Comprehensive Development Zones
N76	Comprehensive Development Zones	Comprehensive Development Zones
N78	Comprehensive Development Zones	Comprehensive Development Zones
N8	Comprehensive Development Zones	Comprehensive Development Zones
N80	Comprehensive Development Zones	Comprehensive Development Zones
N81	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N82	Comprehensive Development Zones	Comprehensive Development Zones
N83	Comprehensive Development Zones	Comprehensive Development Zones
N84	Comprehensive Development Zones	Comprehensive Development Zones
N85	Comprehensive Development Zones	Comprehensive Development Zones
N86	Comprehensive Development Zones	Comprehensive Development Zones
N87	Comprehensive Development Zones	Comprehensive Development Zones
N88	Comprehensive Development Zones	Comprehensive Development Zones
N89	Comprehensive Development Zones	Comprehensive Development Zones
N90	Comprehensive Development Zones	Comprehensive Development Zones
N92	Comprehensive Development Zones	Comprehensive Development Zones
N93	Comprehensive Development Zones	Comprehensive Development Zones
N94	Comprehensive Development Zones	Comprehensive Development Zones
N96	Comprehensive Development Zones	Comprehensive Development Zones
N97	Comprehensive Development Zones	Comprehensive Development Zones
N98	Comprehensive Development Zones	Comprehensive Development Zones

Zoning	Full Name	WSP Class
N99	Comprehensive Development Zones	Comprehensive Development Zones
P1	710 - Civic Institutional Zone (P1)	Institutional
P2	720 - Park, Open Space and School Zone (P2)	Park & Rural
P3	730 - Assembly Zone (P3)	Park & Rural
P4	740 - Special Housing Zone (P4)	Multi Family
P6	760 - Entertainment and Sports Centre Zone (P6)	Institutional
P7	770 - University/College Campus Zone (P7)	Institutional
P8	780 - Health Campus Zone (P8)	Institutional
RCS	395 – Residential Corner Store	Mixed Use
RH1	491 – Manufactured Home Park Zone	Single Family
RHR	470 - High Rise Apartment Zone (RHR)	Multi Family
RM16	405 – Low Density Townhouse Zone (RM16)	Multi Family
RM30	410 - Low Density Townhouse Zone (RM30)	Multi Family
RM45	420 - Medium Density Townhouse Zone (RM45)	Multi Family
RM60	430 - High Density Townhouse Zone (RM60)	Multi Family
RMC	City Centre Residential Zone (RMC)	Mixed Use
RMF	435 - Multi-Unit Residential Flex Zone (RMF)	Multi Family
RMG	431 - Multifamily Ground Oriented Zone (RMG)	Multi Family
RML	450 - Low Rise Apartment Zone (RML)	Multi Family
RMM	460 - Mid Rise Apartment Zone (RMM)	Multi Family
RMM-R	465 - Mid Rise Apartment Zone - Rental (RMM-R)	Multi Family
RMR	440 - Rowhouse Residential Zone (RMR)	Single Family

Zoning	Full Name	WSP Class
RMU	480 - Mixed Use Apartment Zone (RMU)	Mixed Use
RMX	Rural and Single Family Residential Zones	Single Family
RR	Rural and Single Family Residential Zones	Single Family
RS1	Rural and Single Family Residential Zones	Single Family
RS3	Rural and Single Family Residential Zones	Single Family
RS3-A	Rural and Single Family Residential Zones	Single Family
RS3-i	Rural and Single Family Residential Zones	Single Family
RS4	Rural and Single Family Residential Zones	Single Family
RS4-i	Rural and Single Family Residential Zones	Single Family
RS5	Rural and Single Family Residential Zones	Single Family
RS5-A	Rural and Single Family Residential Zones	Single Family
RS6	Rural and Single Family Residential Zones	Single Family
RS6-C	Rural and Single Family Residential Zones	Single Family
RS7	Rural and Single Family Residential Zones	Single Family
RSH	Rural and Single Family Residential Zones	Single Family
RSMH	Rural and Single Family Residential Zones	Single Family
SR	Rural and Single Family Residential Zones	Single Family
SRH	Rural and Single Family Residential Zones	Single Family

Table K- 7: Harrison Hot Springs Zoning and Harmonized Region-Wide Reclassification

Zoning	Full Name	WSP Class
C-1	Village Commercial	Commercial
C-2	Neighbourhood Commercial	Commercial
C-3	Tourist Commercial	Commercial

Zoning	Full Name	WSP Class
-4	Marine Commercial	Commercial
P-1	Community	Park & Rural
R-1	Residential 1 (Conventional Lot)	Single Family
R-2	Residential 2 (Duplex)	Single Family
R-3	Residential 3 (Small Lot)	Single Family
R-4	Residential 4 (Townhouse)	Multi Family
R-5	Resort Residential Development	Multi Family
RR	Rural	Park & Rural
	Village Reserve	Municipal Reserve

Appendix L:
Capital Costs

1. CAPEX Results

Table L-1, **Table L-2** and **Table L-3** present the results of the CAPEX calculations for the case of High Access to Home Charging for low, medium, and high adoption scenarios, respectively, for each five-year period over the coming 25 years. Values are represented in 2026 dollars and are not discounted.

Table L-1: CAPEX – Low Adoption - High Access to Home Charging

Community	Scenario 1 - High Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$10,660,000	$14,830,000	$9,400,000	$3,400,000	$540,000	**$38,820,000**
Chilliwack	$7,210,000	$11,240,000	$7,270,000	$2,850,000	$490,000	**$29,050,000**
Harrison Hot Springs	$160,000	$330,000	$270,000	$50,000	$0	**$810,000**
Hope	$380,000	$430,000	$220,000	$80,000	$0	**$1,110,000**
Kent	$570,000	$710,000	$400,000	$140,000	$0	**$1,820,000**
Mission	$3,160,000	$4,480,000	$2,900,000	$1,370,000	$240,000	**$12,150,000**
Unincorporated Areas	$790,000	$950,000	$630,000	$190,000	$0	**$2,560,000**
Fraser Valley Regional District	**$22,910,000**	**$32,960,000**	**$21,100,000**	**$8,080,000**	**$1,270,000**	**$86,330,000**

Table L-2: CAPEX – Medium Adoption - High Access to Home Charging

Community	Scenario 2 - High Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$16,170,000	$22,930,000	$14,240,000	$5,200,000	$830,000	**$59,370,000**
Chilliwack	$11,060,000	$17,180,000	$10,960,000	$4,270,000	$730,000	**$44,190,000**
Harrison Hot Springs	$270,000	$590,000	$350,000	$80,000	$50,000	**$1,340,000**
Hope	$560,000	$660,000	$330,000	$130,000	$0	**$1,670,000**
Kent	$840,000	$1,060,000	$650,000	$260,000	$0	**$2,810,000**
Mission	$4,680,000	$7,040,000	$4,390,000	$2,040,000	$340,000	**$18,500,000**
Unincorporated Areas	$1,130,000	$1,580,000	$1,110,000	$240,000	$50,000	**$4,110,000**
Fraser Valley Regional District	**$34,680,000**	**$51,050,000**	**$32,040,000**	**$12,210,000**	**$2,000,000**	**$131,990,000**

Table L-3: CAPEX -High Adoption - High Access to Home Charging

Community	Scenario 3 - High Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$24,430,000	$23,040,000	$10,170,000	$3,160,000	$580,000	**$61,400,000**
Chilliwack	$16,740,000	$17,400,000	$8,020,000	$2,910,000	$540,000	**$45,610,000**
Harrison Hot Springs	$480,000	$600,000	$210,000	$80,000	$0	**$1,370,000**
Hope	$830,000	$650,000	$210,000	$60,000	$0	**$1,740,000**
Kent	$1,220,000	$1,110,000	$430,000	$130,000	$50,000	**$2,940,000**
Mission	$7,100,000	$7,120,000	$3,120,000	$1,470,000	$290,000	**$19,100,000**
Unincorporated Areas	$1,620,000	$1,730,000	$760,000	$130,000	$0	**$4,230,000**
Fraser Valley Regional District	**$52,390,000**	**$51,660,000**	**$22,920,000**	**$7,940,000**	**$1,460,000**	**$136,380,000**

Table 4-4, **Table 4-5** and **Table 4-6** present the results of the CAPEX calculations for the case of Low Access to Home Charging for low, medium, and high adoption scenarios, respectively, for each five-year period over the coming 25 years.

Table L-4: CAPEX – Low Adoption - Low Access to Home Charging

Community	Scenario 1 - Low Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$11,140,000	$16,710,000	$12,170,000	$6,280,000	$2,890,000	**$49,200,000**
Chilliwack	$7,540,000	$12,570,000	$9,340,000	$5,040,000	$2,540,000	**$37,030,000**
Harrison Hot Springs	$180,000	$410,000	$270,000	$140,000	$80,000	**$1,080,000**
Hope	$400,000	$470,000	$300,000	$160,000	$50,000	**$1,370,000**
Kent	$600,000	$760,000	$560,000	$290,000	$110,000	**$2,320,000**
Mission	$3,300,000	$5,040,000	$3,750,000	$2,310,000	$1,180,000	**$15,590,000**
Unincorporated Areas	$840,000	$1,030,000	$920,000	$370,000	$100,000	**$3,250,000**
Fraser Valley Regional District	**$23,990,000**	**$37,000,000**	**$27,300,000**	**$14,590,000**	**$6,950,000**	**$109,830,000**

Table L-5: CAPEX – Medium Adoption - Low Access to Home Charging

Community	Scenario 2 - Low Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$16,830,000	$25,690,000	$18,290,000	$9,510,000	$4,350,000	**$74,660,000**
Chilliwack	$11,510,000	$19,190,000	$13,880,000	$7,560,000	$3,780,000	**$55,920,000**
Harrison Hot Springs	$290,000	$640,000	$430,000	$240,000	$80,000	**$1,670,000**
Hope	$590,000	$730,000	$460,000	$220,000	$60,000	**$2,050,000**
Kent	$870,000	$1,210,000	$800,000	$480,000	$160,000	**$3,510,000**
Mission	$4,890,000	$7,870,000	$5,550,000	$3,480,000	$1,850,000	**$23,640,000**
Unincorporated Areas	$1,170,000	$1,770,000	$1,420,000	$580,000	$180,000	**$5,110,000**
Fraser Valley Regional District	**$36,140,000**	**$57,090,000**	**$40,820,000**	**$22,060,000**	**$10,460,000**	**$166,570,000**

Table L-6: CAPEX – High Adoption - Low Access to Home Charging

Community	Scenario 3 - Low Access to Home Charging					
	2026-2030	2031-2035	2036 - 2040	2041- 2045	2046 - 2050	Total
Abbotsford	$25,360,000	$26,140,000	$14,140,000	$5,880,000	$3,170,000	**$74,690,000**
Chilliwack	$17,380,000	$19,650,000	$10,960,000	$6,020,000	$2,990,000	**$56,990,000**
Harrison Hot Springs	$490,000	$650,000	$350,000	$140,000	$60,000	**$1,700,000**
Hope	$860,000	$730,000	$330,000	$140,000	$50,000	**$2,100,000**
Kent	$1,270,000	$1,260,000	$590,000	$350,000	$140,000	**$3,610,000**
Mission	$7,360,000	$8,060,000	$4,330,000	$2,810,000	$1,490,000	**$24,050,000**
Unincorporated Areas	$1,680,000	$1,940,000	$1,110,000	$420,000	$50,000	**$5,190,000**
Fraser Valley Regional District	**$54,380,000**	**$58,420,000**	**$31,810,000**	**$17,230,000**	**$7,950,000**	**$169,800,000**

Figure 4-1 and **Figure 4-2** summarize the cumulative capital investment projections for Level 2 and DC Fast Chargers for the Fraser Valley for the High and Low Access to Home Charging scenarios, respectively. Capital costs are grouped by 5-year period over the next 25 years and are based on projected charger requirements.

Figure L-1: CAPEX - High Access to Home Charging

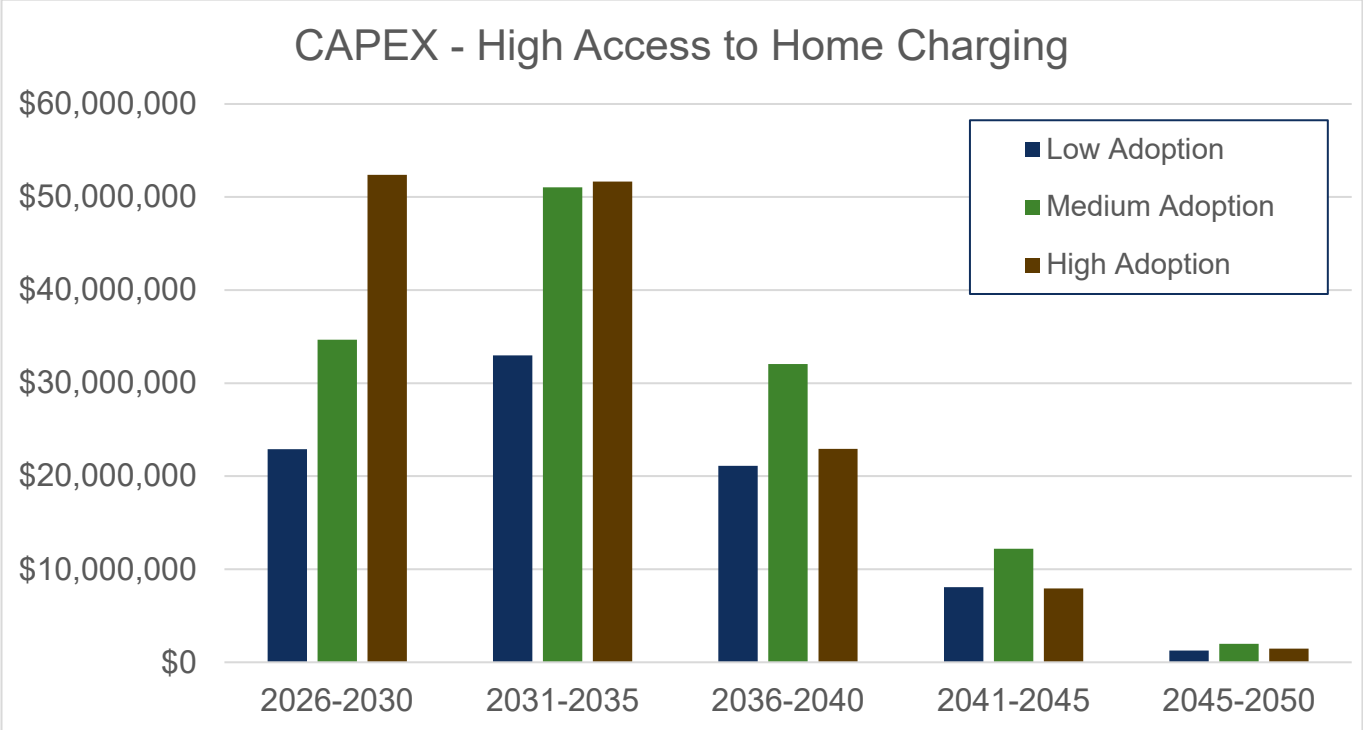
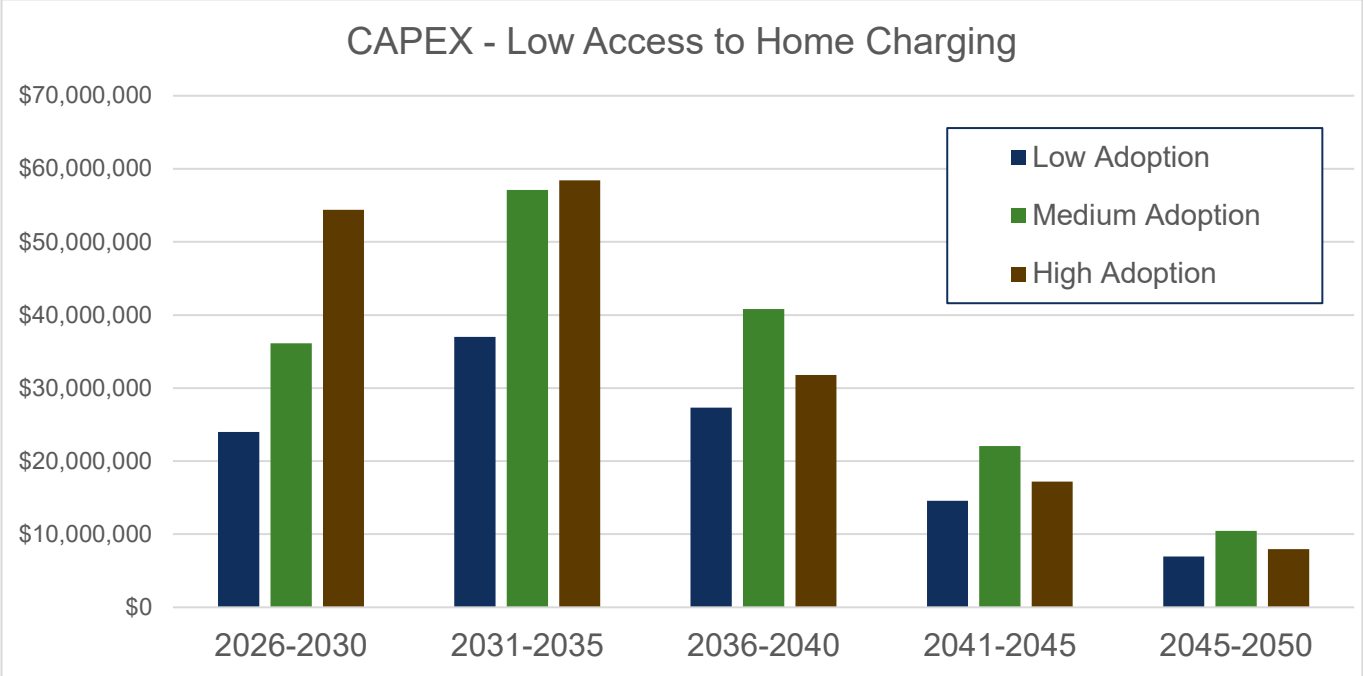


Figure L-2: CAPEX - Low Access to Home Charging



To address the publicly available charger infrastructure gap, between $24M and $54M would need to be invested between 2026 and 2030. Investment levels would then peak at between $37M and $58M between 2031 to 2035, before gradually decreasing. Altogether, between $86M and $170M is required in capital

costs to address the public charging gap over the coming 25 years. It is anticipated that this investment would be shared between the public and private sectors and be offset by revenue generation opportunities.

Appendix M:
Funding & Incentives

1. EV Funding and Incentives

Funding Level	Federal
Organization	Government of Canada
Program Name	Electric Vehicle Affordability Program
Program Status	Intake for the program began in March 2026 and can apply to vehicles bought or leased after February 16, 2026.
Eligible Recipients	Individuals, businesses and organizations purchasing or leasing new EVs in Canada.
Description of Program	The EVAP is a new federal incentive program that provides rebates for affordable EVs. Incentives apply to EVs with a final transaction value of $50,000 or less. This program aims to increase EV adoption in Canada.
Vehicle / Fleet Eligibility Requirements	To be eligible for the incentive, the EV must: • Be bought or leased after February 16, 2026 • Have a final transaction value of $50,000 or less (cap does not apply for Canadian-made EVs) • Be made in Canada or in countries that have a free-trade agreement with Canada • Meet all of Canada's Motor Vehicle Safety Standards • Be highway capable • Have 4 functioning wheels • Be a new vehicle registered for the first time.
Funding Support	Incentives start at: 1. Up to $5,000 for battery electric and fuel cell electric vehicles 2. Up to $2,500 for plug-in hybrid vehicles.
Stacking	There are no rules against stacking the EVAP with other incentives.
Limitations	• One rebate per individual; businesses can claim up to 10 vehicles and car-share organizations can claim up to 50 per year. • Vehicles that exceed $50,000 final transaction value unless made in Canada are ineligible. • Optional add-ons and dealer accessories count toward the total transaction.

Funding Level	Municipal Association
Organization	Federation of Canadian Municipalities
Program Name	Municipal Fleet Electrification – Study Stream
Program Status	Active – applications accepted year-round. Subject to close when all funding is allocated.
Eligible Recipients	Canadian municipal governments and municipal partners (private sector entities, municipally owned corporations, regional, provincial or territorial organizations delivering municipal services, non-governmental

	organizations, not-for-profit organizations, research institutes, indigenous communities partnering with a Canadian municipal government).
Description of Program	The program provides grant funding to support studies that assess the feasibility of transitioning municipal and transit fleets to ZEVs. Funded studies evaluate technical, financial, and operational considerations, including lifecycle costs, GHG emission reductions, and infrastructure needs to help municipalities plan and implement fleet electrification in alignment with Canada's climate targets.
Vehicle / Fleet Eligibility Requirements	The study should assess one of the following and develop a fleet transition plan: • Assessment of entire municipal and/or transit fleet and may consider private vehicles that deliver municipal services such as contracted waste management. • Assess entire segments of fleet (i.e. all vehicles in the waste fleet). • Assess transition of several heavy-duty vehicles within fleet.
Funding Support	The fund can cover up to 50% of eligible costs up to a maximum of $200,000.
Stacking	Funding can be combined with provincial, territorial or other non-federal funding sources. It cannot be stacked with federal funding.
Limitations	Funding is limited to studies only; vehicle purchases, retrofits etc. are not funded under this stream. The study must also focus on ZEV vehicles only.

Funding Level	**Municipal Association**
Organization	Federation of Canadian Municipalities
Program Name	Municipal Fleet Electrification – Capital Stream
Program Status	Active – applications accepted year-round. Subject to close when all funding is allocated.
Eligible Recipients	Canadian municipal governments and municipal partners (private sector entities, municipally owned corporations, regional, provincial or territorial organizations delivering municipal services, non-governmental organizations, not-for-profit organizations, research institutes, indigenous communities partnering with a Canadian municipal government).
Description of Program	The program provides grant and loan funding to support large scale capital projects that transition municipal fleets from ICE vehicles to ZEVs. The program supports the purchase of ZEVs including battery electric, plug-in hybrid electric and hydrogen fuel cell vehicles, as well as the installation of required charging infrastructure and upgrades to existing municipal facilities.
Vehicle / Fleet Eligibility Requirements	Eligible vehicles include: • Battery-electric and plug-in hybrid electric vehicles. • Hydrogen fuel cell vehicles if the project demonstrates a low carbon intensity level for hydrogen production (threshold: 4kg CO2e per kg of hydrogen).

	The project should replace one or more existing vehicles with ZEVs or deploy the necessary EV charging infrastructure for municipal and/or transit ZEVs.
Funding Support	Combined grant and loan for up to 80% of eligible costs. Maximum grant and loan up to $10 million. Grant for up to 15% of the loan amount. The grant contribution is determined as a function of the loan and cannot be separated.
Stacking	Stacking with other funding sources is permitted, subject to Green Municipal Fund contribution limits and the requirement that total funding does not exceed eligible project costs.
Limitations	Funding is only eligible for capital projects that focus on ZEVs. Projects must be fully planned and implementation ready. Projects must demonstrate significant GHG reductions and long-term impacts.

2. EV Infrastructure Incentives & Funding

Funding Level	Federal
Organization	Natural Resources Canada
Program Name	Zero Emission Vehicle Infrastructure Program (ZEVIP)
Description	The ZEVIP is a federal funding program administered by Natural Resources Canada that supports the deployment of EV charging and hydrogen refuelling infrastructure across Canada. The program aims to address gaps in charging and refuelling availability in public places, on-street locations, workplaces and multi-unit residential buildings. Currently the only stream open for applications is for owner/operators of ZEV infrastructure.
Eligible Recipients	Eligible applicants include legal entities validly incorporated or registered in Canada or abroad, including not-for-profit and for-profit organizations such as: • Electric utilities • Companies • Industry associations • Indigenous businesses (registered under the Indigenous Business Directory) • Canadian provincial, territorial, regional or municipal governments or their departments or agencies where applicable
Funding Support	NRCan will contribute up to 50% of total project costs (75% for Indigenous businesses and communities), to a maximum cost of $2 million per project.
Stacking	ZEVIP funding can be combined with provincial and municipal incentives.
Limitations	• Funding for smaller EV charging projects with under 20 Level 2 connectors or 2 DC Fast Chargers can be found through organizations authorized to redistribute a component of the ZEVIP funding. • Larger EV charging or hydrogen refuelling projects above $20 million and carried out by the private sector will be redirected to the Canada Infrastructure Bank's Charging and Hydrogen Refuelling Infrastructure Initiative for funding consideration.

Funding Level	Provincial
Organization	CleanBC
Program Name	Rebates for home and workplace charging

Description	This CleanBC program provides rebates to support the purchase and installation of Level 2 EV chargers at homes, multi-unit residential buildings, and workplaces in BC. The program also supports EV ready planning and electrical upgrades for multi-unit residential buildings to improve access to EV charging.
Eligible Recipients	Individuals and organizations associated with homes, multi-unit residential buildings, workplaces.
Funding Support	Home chargers: ▪ Rebate of up to 50% (up to $350) to install a Level 2 charging station within a single-family home, duplex, or other semidetached housing. Multi-unit residential buildings: ▪ EV ready plan rebate: Stratas or building owners can get a rebate of up to 75% of the costs to a maximum of $3,000 to develop an EV ready plan for a building. ▪ EV ready infrastructure rebate: Stratas or building owners can get a rebate of up to 50% of the infrastructure and installation costs, to a maximum of $600 per parking stall and a project maximum of $120,000.
Stacking	Rebates may be combined with other incentives, provided that the total combined incentives do not exceed the total eligible cost of the equipment and installation.
Limitations	Tesla products are not eligible for rebates. Pre-approvals are required for multi-unit residential building and workplace rebates.

Funding Level	**Provincial**
Organization	Fraser Basin Council Society (through Plug in BC)
Program Name	Go Electric Fleet Charging Program
Description	The program supports public, private and Indigenous fleets in transitioning to ZEVs. It provides financial and technical support including: • ZEV population advisor services • Support for telematics tools and ZEV population assessments • Rebates for fleet planning assessments, electrical upgrades and chargers for light-, medium-, and heavy-duty vehicles. Organizations that receive electricity from BC Hydro can apply for electric fleet planning and infrastructure incentives through BC Hydro's Fleet Electrification Program.
Eligible Recipients	• BC registered companies • Local governments

	• Indigenous communities and businesses • Public sector organizations that have fleet vehicles (except BC Ministries and Crown Corporations, which are not eligible)
Funding Support	Eligible costs supported by the program include: 1. Electrical design 2. Civil and electrical work for service connection 3. New connection service from BC Hydro if required 4. Electrical hardware associated with the fleet charging electrical system. For the EV ready fleet plan rebate: 1. 50% of planning costs (excluding GST), up to $15,000 For electrical infrastructure incentive (requires pre-approval based on the EV ready plan) 2. Up to 50% of eligible electrical infrastructure costs (general applicants) 3. Up to 75% of eligible costs (if criteria is met for additional funding) 4. Up to 100% of eligible costs for indigenous communities or businesses, not-for-profits, government organizations Additional funding is capped at $100,000 per project and determined by number and power of charge ports.
Stacking	No formal rules on stacking fleet incentives. Applicants need to confirm directly with the Fraser Basin Council.
Limitations	1. EV ready plan must be approved before applying for infrastructure funding. 2. Purchase cost of chargers is not eligible.