metrovancouver | CLIMATE 2050

Climate 2050
PROGRESS REPORT

2025

Indigenous Territorial Acknowledgement

Metro Vancouver acknowledges that the region's residents live, work, and learn on the shared territories of many Indigenous peoples, including 10 local First Nations: q̓i̓c̓əy̓ (Katzie), q̓ʷɑːn̓ƛ̓ən̓ (Kwantlen), kʷikʷəƛ̓əm (Kwikwetlem), máthxwi (Matsqui), xʷməθkʷəy̓əm (Musqueam), qiqéyt (Qayqayt), Semiahmoo, Sḵwx̱wú7mesh Úxwumixw (Squamish), scəẇaθən məsteyəxʷ (Tsawwassen), and səlilwətaɬ (Tsleil-Waututh).

Metro Vancouver respects the diverse and distinct histories, languages and cultures of First Nations, Métis, and Inuit, which collectively enrich our lives and the region.

About Metro Vancouver

Metro Vancouver is a diverse organization that plans for and delivers regional services, including water, sewers and wastewater treatment, and solid waste management. It also regulates air quality, plans for urban growth, manages a regional parks system, provides affordable housing, and serves as a regional federation. The organization is a federation of 21 municipalities, one electoral area, and one treaty First Nation located in the region of the same name. The organization is governed by four Boards of Directors of elected officials, one for each legal entity making up Metro Vancouver with representation from member jurisdictions.

4515 Central Boulevard, Burnaby, BC, V5H 0C6
metrovancouver.org
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Contents

Message from the Chair

Continuing to Work Together for a Resilient Region

Local governments are on the front lines of climate action. At Metro Vancouver we continue to work closely with our members and partners to advance practical solutions that protect health, homes, and quality of life for all residents. The climate solutions in Metro Vancouver's *Climate 2050* strategy also help address broader challenges: they can reduce home energy costs, increase affordable transportation options, and create jobs.

The *2025 Climate 2050 Progress Report* provides an update on the region's climate-related trends and highlights the policies, programs, and infrastructure investments of the past year that are reducing emissions and helping prepare our region for climate change now and in the future.

Fourteen member jurisdictions of Metro Vancouver, representing about 93% of the region's population, have now opted in to strong levels in the Energy Step Code and/or Zero Carbon Step Code. This means that most new homes in the region will be climate-ready, to both protect residents from extreme heat and reduce climate-warming emissions. Major investments in public transit are underway, including the Surrey-Langley SkyTrain and the Broadway Subway Projects, giving residents convenient, affordable, and clean travel options. Our region continues to lead North America in electric vehicle adoption, with EVs representing more than one in four new cars purchased in 2024.

The urgency of the climate crisis remains clear. Climate change is impacting our communities and we know these impacts will continue to grow. In 2024, record-setting rainfall in our region led to flooding and landslides that damaged homes and infrastructure, and even resulted in loss of life. In 2025, Canada is on track for a record wildfire season, with wildfire smoke impacting our region. We need to continue to work together and do our part to reduce emissions and prepare our communities.

Organizations across the region are working to address the increasingly frequent extreme weather events in our region. This includes upgrading infrastructure for better flood protection and protecting and restoring ecosystems so that these natural assets can better manage extreme rainfall.

Metro Vancouver is working to do our part. We are recovering waste heat from our sewers to power communities and preparing to construct a district energy system using excess heat from our Waste-to-Energy Facility, which will provide low-carbon heat to thousands of homes in the region. In 2024, we acquired nearly 80 hectares of land to expand the regional parks network. At Metro Vancouver Housing, we are retrofitting homes and building new housing to protect residents from extreme heat, and lower energy bills. We are also reducing our corporate emissions using renewable fuels in hauling and by electrifying our corporate vehicle fleet and facilities.

The actions in this report demonstrate that climate leadership is possible, and taking action on climate helps solve other challenges that can improve our quality of life. Together, we are building a resilient future for everyone.

Sincerely yours,

Mike Hurley, Chair, Metro Vancouver Board of Directors

About *Climate 2050*

Climate change is driven by excess greenhouse gases (GHGs) from human activities and is affecting residents in our region today. Warming of the atmosphere, oceans, and land is leading to more frequent and severe weather events, and widespread disturbances and damage to natural and human systems. In the future, summers are expected to be hotter and drier, and winters warmer and wetter, with more extreme weather (see Metro Vancouver's Climate Projections Report). Scientists emphasize that reducing global GHG emissions can limit the severity of future impacts.

Climate 2050 is the strategy adopted by the MVRD Board in 2018 that commits to:

- Achieve a carbon-neutral region by 2050
- Reduce GHG emissions by 45% from 2010 levels by 2030; and
- Ensure the region's infrastructure, ecosystems, and communities are resilient to the impacts of climate change.

Carbon Neutral Region

A carbon neutral region is achieved when the annual GHG emissions are equal to the amount of carbon removed from the atmosphere and stored annually by the natural ecosystems (e.g. forests and wetlands).

In our region, these ecosystems remove about 1 million tonnes of carbon from the atmosphere every year. Currently, regional GHG emissions are around 17 million tonnes per year. This means that we must reduce these emissions as much as possible, while ecosystems can help to offset a very small amount of remaining emissions to get to net zero.

In this context "Net Zero" can be used interchangeably with carbon neutral. According the International Panel on Climate Change (IPCC) the world must achieve "net zero" emissions by 2050 to avoid catastrophic climate change.

Progress Toward Climate Goals and Targets

Greenhouse gas emissions are decreasing in some sectors across the region, but total emissions are still rising, and the region is not on track to meet the target of 45% reduction in regional emissions by 2030. Continued collective action remains paramount to reduce the future impacts of climate change. This means increased and more coordinated efforts are needed at all levels of government, in collaboration with partner organizations including public sector organizations, businesses, non-profits, and Metro Vancouver residents.

Positive Trends on Reducing Emissions

- Per capita GHG emissions have dropped by 16% since 2010.
- Following several years of growth, EV sales were stable in 2024, accounting for 27% of all new passenger vehicle sales in the Metro Vancouver region.
- Residents are driving less (- 5%) and travelling more by walking (+ 40%) and cycling (+ 61%), likely due to increasingly compact, complete community design and investments in active transportation infrastructure.
- Stronger energy and climate codes are making new buildings cleaner and more efficient, and buildings constructed since 2023 are about 20% more energy efficient than the 2018 code.
- Globally, investments in renewable energy are outpacing fossil fuels, and growth in GHG emissions has started to decouple from economic growth[1].

Regional GHG Emissions Trends

In 2023, Metro Vancouver's total annual regional GHG emissions were 17.3 million tonnes CO_2e (carbon dioxide equivalent), up 6.8% from 2010 (16.2 million tonnes CO_2e). Year-over-year GHG emissions were nearly flat from 2022 to 2023. Emissions also decreased in several sectors including on-road vehicles, buildings, waste, and marine vessels. Reductions in some sectors (e.g., light duty vehicles and waste) may reflect the impacts of climate policy and technological change. Trends and causal factors are less clear for other sectors such as building emissions, which are highly dependent on temperature patterns, and where availability of disaggregated data is limited. Emissions in 2023 increased in other sectors such as non-road engines, industry, and agriculture, compared to 2022.

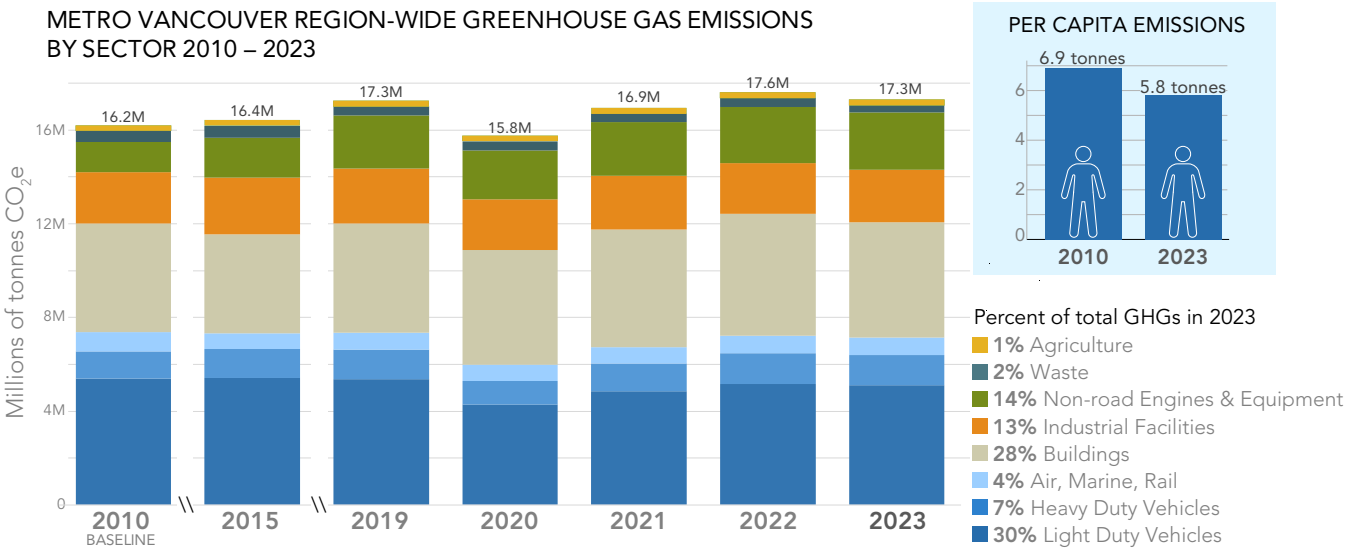
Per-Capita Emissions Are Declining

From 2010 to 2023, regional population grew by 27%, while GHG emissions per person decreased by 16%, from 6.9 tonnes/person to 5.8 tonnes/person, signaling that our buildings, transportation, and economy are becoming cleaner. Total regional emissions are expected to decline in future years, as actions in the Climate 2050 Roadmaps and policies from other orders of government are implemented, and as technology and market shifts continue to take effect[2].

Challenges to Climate Action

Despite these encouraging signals, climate action in the region faces a number of challenges, and total regional emissions continue to rise. These challenges include:

- Political and economic uncertainty associated with international trade.
- Regional affordability challenges
- Rising capital costs of infrastructure
- Mounting costs of responding to the impacts of climate change



Implementing Climate 2050

This *Climate 2050 Progress Report* includes updates on work by Metro Vancouver, member jurisdictions, and other agencies and partners in 2024 and 2025 (to the end of June) to reduce GHG emissions and improve resilience in each of the ten *Climate 2050* issue areas.

For the six approved *Climate 2050 Roadmaps*, the table below provides an update on which actions are complete, in-progress, not started (i.e., delayed), or planned for future years. New climate actions and policies for the remaining four issue areas are being integrated into other existing planning processes and management plans, including *Metro 2050*, the *Clean Air Plan* and updates to Metro Vancouver's *Liquid Waste, Drinking Water, and Solid Waste Management Plans*[3].

See Appendix 1 for a list of actions in Board-endorsed *Climate 2050 Roadmaps*.

***Climate 2050* Action Implementation (from Board-endorsed roadmaps, as of June 2025)**

	59 BIG MOVES	253 TOTAL ACTIONS
Complete	**6**	**15**
In Progress	**35**	**138**
Not Started	**5**	**29**
Planned for Future Years	**12**	**70**
Not Proceeding[4]	**1**	**1**

The icons below indicate the types of actions you will find throughout this report:

BIG Move	Actions that have the most potential to significantly reduce emissions or enhance resilience and adaptation to climate impacts
GHG	Actions that reduce greenhouse gas (GHG) emissions
	Actions that support adaptation and resilience to climate impacts
Corporate LEADERSHIP	Actions by Metro Vancouver in its corporate operations that demonstrate leadership and support regional action
	Actions that support Human Health and Well-Being

Buildings

Creating climate-ready buildings that protect human health, save lives, and stand strong against extreme weather

2024/2025 Regional Outlook

- Recent studies have found that low-emissions buildings have lower annual energy costs compared to conventional buildings and improve health and resilience for residents[5].
- Stronger energy and climate codes are making new buildings cleaner and more efficient, and buildings constructed since 2023 are about 20% more energy efficient than the 2018 code.
- Over 80% of buildings constructed before 2020 are expected to still stand in 2050 and will require upgrades.
- Buildings remain the second-highest source of GHGs across our region. These emissions are still rising, and climate and energy upgrades to existing buildings remain a challenge.

THE CHALLENGE

4.9 million tonnes CO_2e
Total regional GHG emissions from buildings in 2023

28%
of regional GHG emissions are from burning natural gas for heating and hot water in buildings

Over 80% of buildings constructed before 2020 are expected to still stand in 2050, and will require upgrades

PERFORMANCE

6% **increase** in buildings emissions in the region since 2010 (2023)

4,429
heat pump rebates issued in Metro Vancouver region through the CleanBC Better Homes Program (2024), compared to **2,055 in 2023**

14 Metro Vancouver municipalities adopting higher steps of the **Zero Carbon Step Code and/or Energy Step Code**

4% **decrease** in total **GHG emissions** from Metro Vancouver Housing buildings from 2023 to 2024

2024/2025 Case Studies

Safer and More Efficient New Buildings

As of 2025, 14 municipalities in the Metro Vancouver region have adopted higher steps of the Energy Step Code and/or the Zero Carbon Step Code, representing about 93% of the region's population. This means that most new homes in the region will better protect residents from extreme heat, with lower energy costs and emissions. For example, in Richmond, GHG emissions for new detached homes have already decreased by two-thirds since 2022, and energy used for heating, cooling, and ventilation is down 35% compared to buildings completed before 2019.

Supporting Clean Energy Upgrades

Electric heat pumps are increasingly replacing gas heating systems due to their ability to both heat and cool. Some municipalities are providing financial support for residents to install heat pumps in their homes, to help with upfront costs:

- The City of New Westminster provided top-ups to provincial incentives to over 150 homeowners to install electric heat pumps and electrical service upgrades.
- The District of West Vancouver, the District of North Vancouver, and the City of North Vancouver are partnering on the Jump on a New Heat Pump program, which supports homeowners interested in making energy efficiency upgrades to their homes, with a main focus on replacing old heating systems. The program connects homeowners with energy experts to help identify and plan upgrades, review quotations from contractors, and navigate rebate programs. The program was recently expanded to support North Shore residents in condos, co-ops, and rental buildings.

BC Retrofit Accelerator

The BC Retrofit Accelerator program is administered by the Zero Emissions Innovation Centre (ZEIC) and was established with seed funding from Metro Vancouver and other partners. The program supports building owners and property managers to upgrade buildings to achieve deep GHG emissions reductions from larger residential and commercial buildings, and ensure occupants have safe living conditions particularly during heat events caused by climate change. As part of the BC Retrofit Accelerator, the Strata Energy Advisor program has supported 51 buildings representing 4,361 homes in the Metro Vancouver region as of June, 2025.

Reducing Emissions and Improving Resilience at Metro Vancouver Housing

Metro Vancouver Housing is one of the largest non-profit housing providers in the region, with over 3,400 affordable rental homes across 49 sites, serving close to 10,000 people. Metro Vancouver Housing is designing new construction and retrofit projects to increase energy efficiency, reduce greenhouse gas emissions, and improve tenant well-being, for example by including cooling measures to protect residents from extreme heat events. Examples include Heather Place B and Heron's Nest (both fully electric new buildings) and Manor House, which is undergoing building envelope and mechanical system retrofits, which are projected to cut energy use by 51% and GHGs by 65%.

Transportation

Cutting emissions while improving the movement of people and goods across the region

2024/2025 Regional Outlook

- Transportation is the largest source of GHG emissions in our region, with passenger vehicles responsible for about 30% of total regional GHG emissions.
- Metro Vancouver residents are driving less and travelling more by walking and cycling. Between 2017 and 2023, the share of walking trips increased from 14% in 2017 to 18%, and trips by bike increased from 1.7% to 2.4%.
- The Broadway Subway and Langley SkyTrain extensions are under construction and will expand the SkyTrain network by 22 kilometers and 16 new stations, connecting communities with affordable, low-emissions transit.
- Low-carbon transportation modes (transit, walking, cycling and e-mobility) also support affordability, improve health, and reduce air pollution.
- Following several years of growth, EV sales were stable in 2024, accounting for 27% of all new passenger vehicle sales in the Metro Vancouver region[6].
- EVs are becoming cheaper to buy, and are cheaper to operate over their lifetime: when considering the full costs of ownership over a decade, EV drivers can save about $3,000 a year in fuel and maintenance costs compared to a gas vehicle[7].
- Heavy duty vehicles, airplanes, boats, and trains together are responsible for about 12% of total regional GHG emissions. These continue to be challenging to decarbonize, but cleaner alternatives such as electric ferries and seaplanes offer solutions.

THE CHALLENGE

6.4 million tonnes CO_2e
total annual regional GHG emissions from on-road vehicles (2022), making up 37% of regional GHG emissions

37%

0.7 million tonnes CO_2e
total annual regional GHG emissions from **air, marine and rail**[8] (2023), making up **4%** of regional GHG emissions

PERFORMANCE

5% **decrease** in light duty vehicle emissions from 2010-2023

10% **increase** in heavy-duty vehicle emissions from 2010-2023

27% of **new passenger vehicles** sold in region were electric (2024)

EV **7%** of **passenger vehicles** in region are EVs (2024)

2024/2025 Case Studies

Expanding Access and Reducing Emissions of Public Transit

Metro Vancouver's population is growing, and so is the SkyTrain network. The Broadway Subway Project (Millennium Line Extension), opening in 2027, will bring six new stations to one of BC's busiest corridors. Meanwhile, construction of the Surrey Langley SkyTrain continues, with a 16 kilometre extension of the Expo Line from King George SkyTrain Station to Langley City Centre. By 2029, TransLink expects to be able to serve about 20% more customers on the Expo Line, and 50% more on the Millennium Line during the busiest times of the day.

Today, about two-thirds 65 per cent of passenger-kilometres are already on zero-emissions modes such as the all electric SkyTrain and electric-trolley buses. Electrification remains central to TransLink's Climate Action Strategy and Plan. In 2024, it brought 14 new battery-electric buses into service. Work also progressed on the Marpole Transit Centre and Coquitlam Transit Centre, which together will support more than 400 electric buses. Overall TransLink's investments will replace over one-third of its diesel and hybrid-diesel buses by 2030, and together with its use of renewable fuels, TransLink expects to meet or exceed its 45% by 2030 GHG reduction target against its 2010 baseline (in 2024, GHG emissions were 30% below its 2010 GHG baseline).

Enabling Accessible and Safe Active Transportation

Encouraging walking, cycling, and rolling (e.g., electric ride-on and kick-scooters) reduces emissions and traffic congestion, and supports both climate and public health goals. TransLink, Metro Vancouver, member jurisdictions, and the Province, are working to expand active transportation infrastructure across the region.

- In 2024–25, the Province invested $24 million across BC to expand local active transportation infrastructure, supporting eight projects in the Metro Vancouver region.
- TransLink, through their Local Government Funding Program, contributed $144 million to 104 active transportation projects across the region, including 24 bikeway, 21 walkway, and 15 multi-use path projects.
- The success of these efforts can be found in the 2024 State of Cycling Report, which found that nearly 5,000 kilometers of bikeway connects throughout the region.

Municipal Shared E-mobility Programs (Coquitlam and Surrey)

In 2024, the City of Surrey and the City of Coquitlam launched shared e-bike and e-scooter pilot programs, helping connect these communities with quick, convenient, and sustainable travel options. Based on high uptake of these programs, both cities have expanded their shared micromobility service areas, improving connectivity to transit stations and commercial centers.

Improving Access to EV Charging in Metro Vancouver

Expanding EV charging infrastructure is necessary to support EV uptake and reduce transportation emissions. The Metro Vancouver region is increasing access to EV charging. For example:

- 15 member jurisdictions have implemented *EV-Ready Bylaws*, requiring new buildings to provide EV charging in homes, workplaces, and public parking. Installing EV charging in new buildings is three to four times cheaper than upgrading an existing building.
- The City of New Westminster introduced an EV-Ready bylaw for new non-residential buildings that requires 50% of parking to be EV-ready, providing charging opportunities for EV drivers who cannot charge at home.
- To increase access to EV charging in existing buildings, Vancouver's multi-unit retrofit program installed 68 EV chargers across 14 rental buildings, giving over 800 households home charging access for the first time.
- Local governments and partners are also installing EV charging infrastructure at their facilities to support charging for corporate fleets, staff, and the public.

Energy

Powering our region sustainably with clean, renewable energy

2024/2025 Regional Outlook

- 98% of BC's electricity comes from clean and renewable sources, primarily from hydroelectric facilities.
- 75% of energy used in our region is still fossil-fuel based (mostly natural gas, gasoline, and diesel).
- The shift to clean energy is largely driven by the adoption of electric technologies such as EVs and heat pumps, and policies such as the Low Carbon Fuel Standard which is increasing the supply of renewable fuels.
- Through BC Hydro's call for power, and incentives for solar and batteries, more renewable energy is being added to the grid.
- Metro Vancouver and member jurisdictions are recovering waste heat to power communities.

THE CHALLENGE

75%

of **energy used in the region comes from burning fossil fuels** (including fossil natural gas, gasoline, diesel, and coal), accounting for 90% of all regional GHG emissions

PERFORMANCE

273,707 GJ

Electricity provided by the Waste-to-Energy Facility to the region in 2024

In 2024, Metro Vancouver produced

569,554 GJ

of biogas for use in its operations and sold

34,837 GJ

of renewable natural gas to FortisBC, reducing emissions in the region by over 1,700 tonnes.

2024/2025 Case Studies

Advancing Clean Power Supply and Energy Efficiency

BC Hydro is taking a number of actions to meet growing electricity demand from population growth and electrification of buildings, transportation, business, and industrial development. These include:

- Adding the Site C hydroelectric project, which will boost supply by 8% and power 500,000 new homes
- Adding 10 new renewable energy projects in the coming years through the 2024 Call for Power, which will increase supply by 8% and power 500,000 new homes
- Investing in energy efficiency, which is expected to result in 2,000 gigawatt hours per year of electricity—or enough to power 200,000 new homes

As part of its Clean Power Action Plan, BC Hydro has launched another "call for power" (a competitive bidding process), aiming to acquire up to 5,000 GWh per year of clean, renewable energy — enough to power approximately 500,000 homes, doubling the supply from the response to its 2024 call, most of which were wind projects. What's more, BC Hydro plans to invest over $700 million over the next three years in energy-efficiency programs, projected to save enough energy each year to meet the needs of another 200,000 homes.

Analyzing Thermal Energy Opportunities Across Metro Vancouver

Thermal energy networks use water pipes to connect to energy sources such as heat from sewer lines, geothermal, solar, and water bodies, to heat and cool buildings. Thermal energy networks use water pipes to connect to energy sources such as heat from sewer lines, geothermal, solar, and water bodies, to heat and cool buildings. Metro Vancouver is recovering heat from wastewater for several district energy projects under design that will cut GHG emissions by about 45,000 tonnes while providing renewable heat to nearby communities.

Metro Vancouver is partnering with BC Hydro and the Zero Emissions Innovation Centre (ZEIC) to evaluate the opportunities for low-carbon thermal energy networks in the region. This study will explore how low-carbon thermal energy networks for heating and cooling buildings can be scaled up in the region, helping local governments to meet energy and greenhouse gas reduction goals, improve local energy resilience and security, foster local economic development, and protect health by enabling cooling in buildings.

Using Sewer Systems to heat and cool communities

Sḵwx̱wú7mesh Úxwumixw (Squamish Nation)'s new Seńáḵw development located at the head of False Creek is Canada's first large-scale net-zero emissions housing development, with over 6,000 homes for 9,000 residents. Construction is underway on a new district energy system that will recover excess heat from Metro Vancouver sewer infrastructure to heat and cool all homes and businesses in the new development. The system is designed to expand in the future to provide thermal energy to surrounding communities. This is expected to reduce GHG emissions by approximately 120,000 tonnes over 30 years compared to natural gas heating. This project is an innovative example of hyper-local, low carbon energy that will provide safe and clean heat for decades.

Developing New Sources of Renewable Fuel

Metro Vancouver Wastewater Treatment facilities are harnessing wastewater energy to create renewable fuels with a wide range of applications. Pilot examples include:

- At Annacis Island Wastewater Treatment Plant, a hydrothermal liquefaction demonstration facility is being constructed to convert wastewater sludge into biocrude. The biocrude will then be refined into low-carbon transportation fuel.
- An ammonia-to-hydrogen pilot is planned at Annacis Island Wastewater Treatment Plant. This pilot will produce green hydrogen from wastewater, which can displace fossil fuel use and reduce GHG emissions.
- At Lulu Island Wastewater Treatment Plant, excess biogas is cleaned up and sold as renewable natural gas to Fortis BC.
- Also at Lulu Island Wastewater Treatment Plant, a bioreactor will be tested to increase microbial production of biomethane from wastewater sludge, creating more renewable natural gas.

Industry & Business

Driving economic growth and prosperity through a thriving local clean energy economy

2024/2025 Regional Outlook

- Emissions from large industrial facilities remain stable, and policies such as industrial carbon pricing, along with new technologies supporting electrification and renewable fuels, are driving innovation and encouraging emissions reduction.
- Non-road equipment emissions have nearly doubled since 2010 in the region, including from construction and manufacturing, likely due to development activity.
- Industry is exploring emerging technologies like carbon capture to reduce emissions from emissions-intensive processes like cement production.

THE CHALLENGE

2.2 million tonnes CO_2e
total regional emissions from **large industrial facilities** in 2023, making up 12% of regional GHG emissions

13%

2.5 million tonnes CO_2e
total regional emissions from **non-road equipment** in 2023, making up 14% of regional GHG emissions

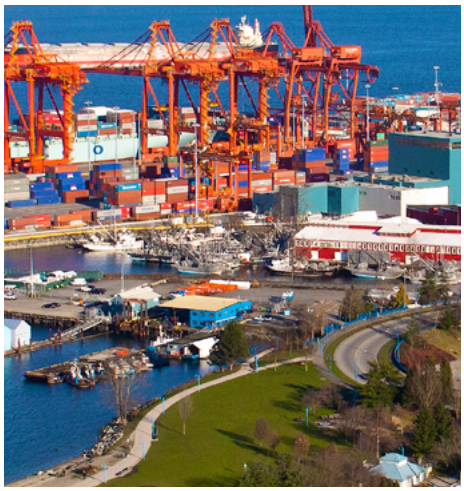
14%

PERFORMANCE

2% **increase** in GHG emissions from **large industrial facilities** from 2010-2023

89% **increase** in GHG emissions from **non- road equipment** from 2010-2023

2024/2025 Case Studies



Decarbonizing Port Operations

The ports in Metro Vancouver handle approximately 20% of Canada's trade. The Vancouver Fraser Port Authority's EcoAction program offers discounts for ships that use lower-emission fuels such as methanol, hydrogen, or liquified natural gas (LNG). Incentives also apply for ships that reduce their emissions by connecting to shore power, wind, or batteries.

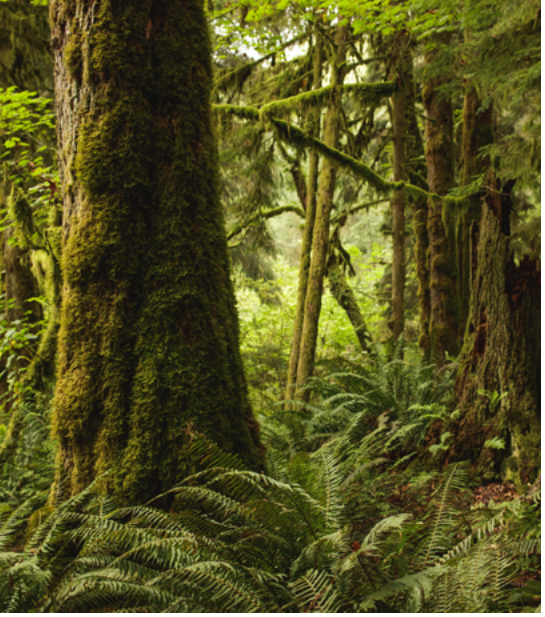
A pilot is also underway to use hydrogen-powered cranes that lift and carry large containers through ports instead of diesel fuel. Switching just one crane to hydrogen can eliminate 150,000 litres of diesel per year, or 400 tonnes of GHG emissions annually.

Reducing Harmful Emissions from Boilers and Heaters

Metro Vancouver is updating an existing bylaw for boilers and process heaters, which are commonly used for heating large commercial, industrial, and residential buildings. They also emit air pollutants such as nitrogen oxides (NOx), and fine particulate matter while also forming ground-level ozone, all of which harm human health. Updates to the bylaw will encourage technologies that reduce these emissions, including electric options that also reduce GHG emissions.

Transition Towards Zero-emissions Equipment

Small gas-powered landscaping equipment in the region, like leaf blowers and lawn mowers, produces about half as much air pollutants that can directly harm human health as all the light-duty vehicles in the region. Transitioning this equipment to emission-free alternatives is an important step toward reducing air pollution and protecting public health. Metro Vancouver is engaging with equipment manufacturers and users, industry associations, and others for input on measures to accelerate the transition towards zero-emissions equipment.



Nature & Ecosystems

Protecting and leveraging green spaces to enhance climate resilience and biodiversity

2024/2025 Regional Outlook

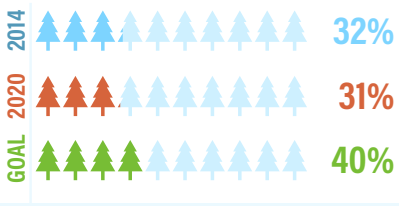
- Ecosystems help to protect people and infrastructure from climate impacts, offer a range of benefits for human health and well-being, and store carbon.
- Urban development is contributing to the loss of natural areas and climate change is impacting ecosystem health in the region.
- Metro Vancouver, member jurisdictions and other partners are also working to protect and restore natural areas, and increase ecosystem connectivity.
- Increased heat events and flooding are highlighting the importance of natural ecosystems for climate-resilient communities.
- For example, municipalities across the region are recognizing the importance of tree canopy in urban areas and are introducing programs and plans to maintain tree canopy cover.

THE CHALLENGE

31% proportion of Urban Containment Boundary with **tree canopy cover** (2020)

54% proportion of the Urban Containment Boundary **covered by impervious surface** (2020)

PERFORMANCE



1% loss of tree canopy cover in Urban Containment Boundary between 2014-2020 (down from 32%).
Metro Vancouver target = 40%

32 restoration projects across 19 regional parks
completed in 2024

2024/2025 Case Studies

Township of Langley Tree Voucher Program

Urban forests help to cool cities, clean the air, manage stormwater, and remove carbon from the atmosphere. Residents in Langley are helping to accelerate the urban tree canopy by planting trees on their property. The Tree Voucher program provides a $350 voucher to purchase trees from local participating nurseries. The program has proven to be very popular amongst residents, and in Spring 2025 over 1,100 trees were planted through the program.

West Vancouver and Maple Ridge Urban Forest Management Plans

Maple Ridge and West Vancouver are implementing urban forest management plans to expand tree canopy — setting ambitious targets of 40% and 52% respectively — while protecting existing green spaces and biodiversity. In Maple Ridge, forests already remove carbon equivalent to the emissions of 884 vehicles annually and prevent billions of litres of stormwater runoff. In fall 2024, West Vancouver also partnered with local schools to plant 60 native trees across 13 campuses, engaging students in environmental stewardship and climate action. In 2025, West Vancouver is continuing tree planting efforts by working with residents to plant trees in their yards.

Protecting Regional Ecosystems Through Land Acquisition

In 2024, Metro Vancouver acquired an additional 79.6 hectares of land in Blaney Bog, Glen Valley, and South Langley Regional Park. The newly protected land includes bog ecosystem that takes carbon out of the atmosphere, a portion of the Fraser River floodplain, and extensive forests that provide cooling for the adjacent neighborhood. Together these additional lands will contribute to our ability to remain resilient in the face of climate change.

Mitigating Wildfire Risk in Regional Parks

Metro Vancouver is conducting a wildfire risk assessment to identify higher-risk areas within regional parks. The project will include risk mapping, development, and prioritization of risk management strategies, and site-level prescriptions for pilot sites to improve forest health and reduce fire risks.

Protecting and Restoring Burns Bog

Burns Bog is a unique raised bog ecosystem, and at 3,000 hectares, is the largest undeveloped urban landmass in North America. The bog is a peatland, which is a special kind of wetland where at least 30 cm of peat (plant matter) has piled up because the very wet conditions have created an environment where decomposition is extremely slow. To promote carbon sequestration and support healthy bog function, Metro Vancouver and Delta are working to raise the water table by blocking drainage ditches, constructing peat berms, removing trees and seedlings, and monitoring water levels and quality. Since 2008, these restoration efforts have prevented over 120,000 tonnes of GHG emissions, mostly methane, a highly potent GHG. Read more about Burns Bog here.

In 2025, Metro Vancouver and City of Delta are partnering to increase the tree seedling removal efforts in an area affected by a fire in 2016. The purpose of this project is to reduce the risk of wildfire in this urban interface area and remove trees that have emerged since the 2016 fire that are competing with bog plants, with the aim of restoring the bog ecosystem.

Agriculture

Protecting farmland to ensure a local, resilient food supply

2024/2025 Regional Outlook

- Metro Vancouver's agriculture sector is an important economic driver for our region and essential for local food production.
- Farmland can also provide valuable ecosystem services such as flood control, soil carbon sequestration and wildlife habitat.
- However, climate impacts such as flooding, extended heat events, annual summer drought, invasive species, and degraded soil conditions, create compounded challenges for the agricultural sector.
- Changing climate conditions, as well as economic uncertainty, highlight the need for a multi-jurisdiction approach to support the agricultural sector to adapt and continue to provide essential products and services for the region.

THE CHALLENGE

0.2 million tonnes CO_2e

total regional emissions from **agricultural sector** in 2023, making **1%** of total regional GHG emissions[9]

1%

PERFORMANCE

12% **increase** in total **agricultural sector** emissions from 2010-2023

2024/2025 Case Studies

Promoting Regenerative Agriculture- Mound Farm Park

In the City of Surrey, a multi-year pilot project at Mound Farm Park across 40 hectares of active farmland involves a collaboration between the City, Kwantlen Polytechnic University and Greenway Farms. The project is studying climate impacts integrated with sustainable agricultural practices, including an area of land left uncultivated to support pollinators, winter cover-cropping, and large-scale ecological restoration. The project includes long-term soil health and carbon monitoring, biodiversity assessments, and adaptive land management practices. Its unique combination of ecological, geological and significance to local First Nations makes Mound Farm Park a model for integrating sustainable agriculture with parkland. Together, the project will help inform future policy changes across other city agricultural lands.

Ensuring Water Availability for Agriculture

At the regional level, Metro Vancouver is conducting a project to understand new ways to protect two critical assets in our region: drinking water and food crops. The Regional Agricultural Drinking Water Demand Study will highlight current sources of water used for agricultural production and calculate the amount of water demand needed for agriculture across our region, including future demand in a changing climate. The findings may also support related research to discover non-potable water sources that could be used to relieve demand on drinking water sources during peak water demand months. These findings can help with resiliency planning across our region.

A similar project is taking place at the City of Surrey: As demands for water rise in a changing climate, Surrey is working to support long-term viability of its agriculture sector. Recognizing that irrigation demands are projected to rise by 20-30% in a hotter and drier climate, the City is conducting an Agricultural Feasibility Study and exploring the use of non-potable water from the Serpentine and Nicomekl River watersheds to support climate-resilient agriculture in the area.

Water and Wastewater Infrastructure

Building climate resilience in our water systems to ensure fresh, safe drinking water and low-carbon resilient wastewater services for all residents

2024/2025 Regional Outlook

- Water and wastewater systems are critical to human health and the environment in the region and need to be resilient to climate change.
- These systems also hold significant opportunities for energy recovery and carbon neutrality.
- Impacts from a changing climate, such as more intense and frequent rainfall in some seasons and drought in other seasons, flooding, landslides, and sea level rise, create challenges for drinking water and wastewater management.
- In 2024, atmospheric river events delivered record rainfall to our region, resulting in flooding, widespread power outages, washed out roads, and landslides.
- Water use per capita in Metro Vancouver has declined from around 500 litres per person daily in 2010 to 379 litres per person in 2023. However, the region is still one of the highest per capita users of water in Canada, with low rates of residential water metering.
- Ensuring water and wastewater systems are resilient to climate change will require significant financial investments, but resource recovery also presents opportunities to harness excess energy to power communities and generate revenue.

THE CHALLENGE

8,084 tonnes CO_2e
Total **corporate energy-related** GHG emissions from **Liquid Waste Services** in 2024

1,886 tonnes CO_2e
Total **corporate energy-related** GHG emissions from **Water Services** in 2024

30% increase in **rainfall** on the wettest days in our region projected by 2050.[10]

PERFORMANCE

23% **decrease** in **daily water use per capita** in the region since 2010 (down from 500 litres/day)

4%
decrease in total **corporate energy-related** GHG emissions from **Liquid Waste Services** from 2023 to 2024

0% change **corporate energy-related** GHG emissions from **Water Services** from 2023 to 2024

In 2024, Metro Vancouver produced

569,554 GJ
of biogas for use in its operations and sold

34,837 GJ
of renewable natural gas to FortisBC, reducing emissions in the region by over 1,700 tonnes.

2024/2025 Case Studies

Using Natural Solutions to Capture Rainwater

City of Vancouver's St. George Rainway began with a group of community volunteers wanting to restore a creek buried below the street. Rainways are networks of green infrastructure that incorporate plants, trees, and soil to manage rainwater. The natural elements work with pipes and streets to capture and clean rainwater before returning it to the ecosystem. This climate friendly project also significantly reduces costs: construction was approximately $1.6 million compared to an estimated pipe upgrade cost of $16 million. The St. George Rainway can divert the equivalent of seven Olympic swimming pools of water per year from the road, and improve resilience to climate change impacts, while providing other ecosystem services such as mitigating extreme heat and creating habitat.

Climate Resilience through Water Metering Programs

Water metering is an essential tool to effectively reduce drinking water demand in the region. Currently 35 per cent of the water service connections in the region are metered, representing about 47 per cent of the total drinking water consumed. Implementing universal water metering is not just a financial or operational decision, it is a necessary step in ensuring the supply of high-quality drinking water into the future. Meters provide accurate water consumption data, detect leaks, support equitable billing, encourage water users to be mindful of their water consumption, and support water conservation initiatives.

Many Metro Vancouver member jurisdictions are working to advance water metering, including approving voluntary metering programs, implementing requirements for metering on new buildings, and accelerating universal metering programs. For example, in 2025, the City of Coquitlam implemented a requirement for water metering on all new builds, and at the City of Burnaby, in addition to requiring metering for all new builds, a universal metering strategy was approved in 2024.

Partnering to Build Climate-Ready Communities

Climate change is increasing flood risk, threatening communities and infrastructure in parts of the region. The City of Coquitlam and kʷikʷəƛ̓əm First Nation are improving flood protection along the confluence of the Coquitlam and Fraser Rivers through the Joint Flood Mitigation Program, which will upgrade the area's flood protection and dike network. The program will also strengthen fish habitat and install new flood boxes to support water connectivity through the dike and drainage system. The $19.9 million program is supported with funding from the Investing in Canada Infrastructure Program, as well as from the Province. Designs are underway and construction is expected for 2027-2029.

Waste

Shaping a low-carbon future through waste prevention and the promotion of a circular economy

2024/2025 Regional Outlook

- Metro Vancouver manages the region's solid waste, which contributes 2% of regional GHG emissions.
- Metro Vancouver and local governments are successfully reducing waste and bringing down emissions, through important programs like organic diversion programs and construction and demolition waste reduction requirements.
- Together with manufacturers, local governments and others, Metro Vancouver is working to implement circular economy principles in the region, to design out waste and ensure products are re-used, repaired, or recycled
- Efforts such as provincewide Extended Producer Responsibility programs as well as Metro Vancouver led behavior change campaigns, and food recovery programs are supporting this work.

THE CHALLENGE

0.4 million tonnes CO_2e
total regional emissions from **solid waste** (2023)[11]

11,629 tonnes CO_2e
total **corporate energy-related** GHG emissions from **Solid Waste Services** in 2024

PERFORMANCE

65% **Recycling rate for regional solid waste** (2023)

2.4 million tonnes
of material recycled in the region (2024)

47% **decrease** in total regional GHGs from the region's solid waste system, 2010-2023

26% **decrease** in regional solid waste disposed since 2011

273,707 GJ
of electricity generated at Waste-to-Energy Facility in 2024

1% **decrease** in total **corporate energy-related** GHG emissions from Solid Waste Services from 2023 to 2024

2024/2025 Case Studies

Construction and Demolition Waste Reduction and Recycling Toolkit

Waste from Construction and Demolition represents about one third of waste sent to landfills in the region. Metro Vancouver is supporting local businesses aiming to find new uses for construction materials that are typically destined for landfill. The Construction and Demolition Recycling toolkit provides practical tips for contractors, designers and homeowners to reuse and recycle building materials. The toolkit includes case studies and a contact directory of service providers and facilities across the region. It also highlights the benefits of alternative demolition methods such as deconstruction, which can salvage and redistribute up to 95% of building materials for reuse or recycling.

Turning Waste into Energy for Nearby Homes

Metro Vancouver's Waste-to-Energy Facility manages approximately a quarter of the region's solid waste, and produces electricity that is sold to BC Hydro to power communities in the region. Metro Vancouver is taking energy recovery at the facility one step further - building a district energy system that will use excess heat from the combustion process to supply heat and hot water for 50,000 homes in Vancouver and Burnaby. The system will also reduce greenhouse gas emissions by up to 70,000 tonnes per year. Construction of the first phase of this project will start in the fall of 2025, and is expected to be complete in 2028. This phase includes the construction of an energy centre adjacent to the Waste-to-Energy Facility and the installation of an approximately 6 km hot water piping system to the River District community in Vancouver.

Food Rescue for Climate Action

Food waste disposed to landfill results in the generation of methane, a powerful greenhouse gas. Metro Vancouver has taken steps to divert edible food away from the landfill. For example, since 2021, Metro Vancouver has supported the development of a regional food recovery network and online platform that rescues and redistributes surplus food. The service provider, Food Mesh, recruits partners, promotes the network, and provides ongoing technical support. Since its inception, the project has diverted more than 12 thousand tonnes of edible food to feed people and animals. This has avoided more than 30,000 tonnes of CO_2e emissions, while creating nearly 70 jobs.

Additionally, Metro Vancouver Housing partners with Food Link Society to reduce food waste and provide residents with free food through the Free Food Program. Food Link Society collects perishable food items nearing their "best before" date from grocery stores and delivers them to housing sites. Over 400 households currently participate in the Free Food Program, which has diverted over 3 million kilograms of food from its inception in 2018 to July 2025.

Turning Waste into Low Carbon Fuel at Surrey Biofuel Facility

Surrey's biofuel facility converts organic waste into renewable natural gas (RNG), reducing GHG emissions and enhancing energy security. Every year, the facility processes organic waste from over 150,000 Surrey households, as well as waste from residential, commercial and industrial operations across the region. The facility can produce up to 120,000 gigajoules (GJ) of renewable natural gas (RNG) annually, or enough to power nearly 2,500 passenger vehicles for a year. This RNG is used to fuel garbage trucks and Surrey's own compressed natural gas vehicles. The facility also produces nutrient-rich compost which is used for landscaping, food crops, and other agricultural applications. Since opening in 2016, the facility has diverted 680,400 tonnes of organic waste from landfills.

Human Health & Well-Being

Safeguarding health and wellbeing as we adapt to the changing climate.

2024/2025 Regional Outlook

- Climate change is already impacting health and well-being in our region, including from degraded air quality during wildfire smoke events, extreme heat events, and flood risks.
- Actions to reduce emissions often have health benefits. For example: heat pumps provide cooling to protect residents from extreme heat; active transportation improves health and wellbeing; and protecting nature provides cooling and supports mental and physical health.
- Safe, affordable housing underpins human health and well-being.
- New programs such as the Rental Apartment Retrofit Accelerator will help accelerate upgrades in rental buildings to add low-emissions heating and cooling.
- Between 2017 and 2023, the share of walking trips increased from 14% to 18%, and trips by bike increased from 1.7% to 2.4% over the same period.

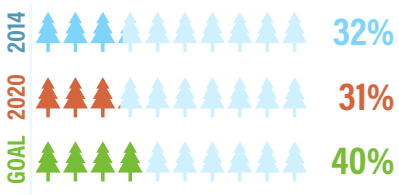
THE CHALLENGE

3 **AIR QUALITY WARNING DAYS**
in Metro Vancouver and Fraser Valley Airshed (2024)

More than **one in three** residents in the region rents their home, and renters tend to live in older and less efficient buildings without cooling.

PERFORMANCE

3 Air Quality Warning Days in Metro Vancouver and Fraser Valley Airshed from sources within the airshed (2024), compared to 5-year average of **3.2 days** (2019-2023).



1% loss of tree canopy cover in Urban Containment Boundary between 2014-2020 (down from 32%).
Metro Vancouver tree canopy cover target = 40%

2024/2025 Case Studies

Fraser Health BREATHE & Cleaner Air Spaces Projects

As wildfire smoke becomes more severe and frequent, improving indoor air quality has become essential for climate resilience. The BREATHE Project, running from 2023 to 2026, is a collaborative initiative involving Fraser Health, Simon Fraser University, and the BC Lung Foundation, and is funded provincially with a Ministry of Health Innovation grant held through Fraser Health Authority. The project empowers communities – especially older adults, new and expecting mothers, people unable to afford commercial air cleaners, Indigenous communities and those living with lung and heart condition – to improve their indoor air quality by building low-cost DIY air cleaners. Workshops and materials are offered in multiple languages across each Health Authority and provide hands-on education about air pollution and health. Fraser Health is also working closely with the First Nations Health Authority on this work. By increasing access to clean air during climate emergencies, the project has contributed to broader regional climate resilience, reducing exposure to air pollution and supporting public health.

Meanwhile, the Cleaner Air Spaces (CASs) project is installing low-cost air quality sensors in community spaces to better understand the effectiveness of these spaces in protecting against wildfire smoke. Community spaces that offer air conditioned and/or filtered air can provide people with cleaner and cooler air when their homes may be too hot and smoky. The project began in 2023 and continues to expand the number of spaces participating in the project. Collaboration with BC Centre for Disease Control as well as libraries, community centers, and government agencies has been central to its implementation. What makes this project unique is its focus on making real-time air quality data accessible to allow for timely informed responses that can lead to more equitable access to cleaner air, directly strengthening regional resilience to climate related air quality threats.

Thermal Safety in Apartment Buildings Toolkit (Partnership with Vancouver Coastal Health, City of North Vancouver, City of Vancouver and Metro Vancouver)

Heat events across BC's Lower Mainland are becoming more frequent and severe. The 2021 heat dome, which brought record-breaking temperatures and resulted in 619 deaths and hundreds of emergency room visits, highlighted the urgent need to adapt buildings to a changing climate.

In response, Vancouver Coastal Health Public Health partnered with the Cities of North Vancouver and Vancouver to develop a Thermal Safety Toolkit. Based on a review of the evidence and consultation with industry and policy experts, this publication outlines 31 actions that local governments and partner agencies from across sectors can consider taking to contribute to advancing thermal safety in existing, multi-family residential buildings. Many of the actions also aim to support broader goals such as affordability, energy efficiency, and emissions reductions.

Indoor Air Quality Grants for Protection During Wildfire Smoke Events

Wildfire smoke, worsened by climate change, severely impacts air quality and health—especially for vulnerable populations. Vancouver Coastal Health awards grants to community organizations for climate resilience actions including to improve air filtration, and support 'train-the-trainer' workshops through the BREATHE Project (see above). Funding will allow BREATHE to expand its engagement with neighbourhood houses, seniors centres, family centres, and other social service organizations that serve populations particularly at-risk from poor air quality. Additional support from the Ministry of Health will help reach even more neighbourhoods in 2025.

THE CHALLENGE

31% proportion of Urban Containment Boundary with **tree canopy cover** (2020)

54% proportion of the Urban Containment Boundary **covered by impervious surface** (2020)

PERFORMANCE

99% of the region's dwelling unit growth within the **Urban Containment Boundary** (2016 to 2021)

41% of the region's dwelling unit growth in **Urban Centres** (2016-2021)

Land Use & Urban Form

Planning healthy and complete communities resilient to climate impacts.

2024/2025 Regional Outlook

- Through *Metro 2050*, Metro Vancouver, member jurisdictions, and other regional partners are planning for the future and developing sustainable and complete communities.
- In 2024, member jurisdictions responded to new provincial legislation requiring increased housing density near transit-oriented areas.
- Population growth will present the region with increased challenges in addressing climate change. Metro Vancouver and member jurisdictions can continue to work collaboratively to use land use tools to reduce emissions and build resilience to changing risks and natural hazards, including flooding, landslide, and wildfire.

2024/2025 Case Studies

A Regional Approach to Assessing Hazard, Risk, and Vulnerability

BC's Emergency and Disaster Management Act will lead to risk assessment requirements for local governments and critical infrastructure owners, including the requirement to incorporate future climate change into risk assessments. Metro Vancouver will be working with key partners to develop a Hazard, Risk and Vulnerability Assessment (HRVA). Given the unique challenges of the region and the interface of hazardous areas across jurisdictional boundaries, there is a critical need for coordination on hazard and risk work. A regional HRVA would deliver a robust understanding of hazards, risks, and vulnerabilities specific to the region and strategies to address them, a coordinated regional resilience network to convene partners, and critical information to support land use planning, climate action, and emergency management efforts.

Protecting Communities against Flooding and Related Hazards

As part of Metro 2050, the regional growth strategy, Metro Vancouver is developing a resource guide to support member jurisdictions build resilience to flooding and related hazards through land use planning. The Guide will consider a range of land use tools, including policies that could be integrated into municipal land use plans, zoning bylaws, and Development

Permit Areas. Other tools may include recommendations for green infrastructure improvements through the development approvals process, the use of covenants, property buy-outs, and site design/urban design considerations for flood proofing.

Delivering Climate Action Through Land Use Planning at City of Surrey

The City of Surrey conducted a review of its *Official Community Plan* (OCP) and *Zoning Bylaw* with the goal of incorporating climate action into future updates, and to align with Surrey's *Climate Change Action Strategy*. This work produced a number of recommendations, along with a Municipal Guidance Report, that is transferable to other BC municipalities. It supports healthy, low-emission buildings and sets a path for resilient community growth.

In addition to supporting climate action through its OCP update, Surrey's new Rapid Transit Development Incentive Program will reduce emissions by supporting new development near rapid transit. The program, which is funded through the Housing Accelerator Fund, will be active until 2026 and provides a 50% rebate on select permit fees for multi-family housing within 1.5 km of SkyTrain or RapidBus corridors. In 2024, the program incentivized 2,613 new homes and rebated over $2.5 million in fees. The initiative supports the City's vision of 15 minute neighbourhoods — walkable, connected communities anchored by low-carbon transportation.

Climate Adaptation to Protect Agriculture

Along the Nicomekl and Serpentine Rivers, climate change is increasing the risk of severe flooding. The City of Surrey is initiating construction on three grant-funded projects to raise the height of sections of the dikes. These upgrades, which are funded through the federal Disaster Management and Adaptation Fund, will increase the resiliency of the diking infrastructure, helping to protect valuable agricultural areas and regionally significant infrastructure.

Rupert and Renfrew Station Area Plan – City of Vancouver

The Rupert and *Renfrew Station Area Plan* will create a comprehensive plan to guide change and growth in the neighbourhood. Approved on July 8, 2025, Vancouver's Rupert and Renfrew Station Area Plan anticipates delivering homes for 18,700 new residents and 8,300 jobs by 2050, centered around transit hubs. It's the first area plan under the Vancouver Plan and delivers climate action by focusing growth near transit while providing job space to sustainable, low-emission living. Other key components of the plan include a focus on complete neighbourhoods (with more shops and services and amenities within easy walking/biking distance), enhancements to regionally significant employment lands, and the long-term restoration of Still Creek to support flood resilience and ecosystem services.

Housing Our Future – City of Delta

In 2024, Delta adopted a new *Official Community Plan* that concentrates housing near transit, shops, and services while meeting new provincial housing requirements. The City also updated its Housing Needs Assessment and zoning bylaws to enable small-scale multi-unit housing in low-density neighbourhoods. Public engagement included over 1,000 conversations and a popular "PLAN-A-THON" event that empowered residents to build climate-friendly housing options.

Conclusion

The *Climate 2050 Progress Report 2025* highlights a range of impactful projects, policies and actions that Metro Vancouver, its member jurisdictions, and other agencies are implementing which are helping to reduce GHG emissions and build resilience to climate change. These initiatives are also delivering important benefits for residents such as expanded parks and green spaces, cooling in buildings, improvements to indoor and outdoor air quality, more transportation options, jobs and economic opportunities, and household cost savings.

In 2023, total regional GHG emissions were 7% higher than 2010, however emissions trends in two sectors (light-duty vehicles and waste) decreased, and per capita emissions dropped by 16%. Coordinated efforts by all levels of government, partner organizations, businesses, and other groups with the participation and support of Metro Vancouver residents have limited growth in regional emissions, and continued action is needed to maintain progress towards reducing emissions and improving climate resilience.

APPENDIX 1 — *Climate 2050* Action Implementation 2024/2025

Buildings

IMPLEMENTATION (AS OF JUNE 2025):
OF 38 TOTAL ACTIONS: 3 COMPLETE, 28 IN PROGRESS, 4 NOT STARTED, 2 PLANNED FOR FUTURE YEARS, 1 NOT PROCEEDING

ACTION	STATUS
New Buildings are Highly Efficient and Electric	Complete
Building Decarbonization Coalition	Complete
Regional Working Group to Reduce Embodied Emissions in Buildings	Complete
GHG Requirements for Existing Large Buildings	Not proceeding
Building Electrification Mandate for BC Hydro	In progress
High Performance Heating and Cooling Equipment Import and Sale Standards	In progress
GHG Performance Requirements for Existing Houses and Townhomes	In progress
Require Greenhouse Gas Reductions During Renovations	In progress
Energy Labels for Homes and Buildings	In progress
Manage Indoor Air Quality in Building Codes	In progress
Significantly Reduce Refrigerant Leaks in Building Equipment	In progress
Expand Low Carbon Upgrade Incentives	In progress
Online Decision Support Tools for Low Carbon Upgrades in Buildings	In progress
New Financing Tools for Low Carbon Upgrades	In progress
Energy Advisor Services for Homes and Large Buildings	In progress
Make Electricity Upgrades Faster and Cheaper	In progress
Increase Public Awareness of the Benefits of Zero Emissions and Resilient Buildings	In progress
Training and Education in Zero Emissions and Resilient Buildings	In progress
Share Lessons from Transitioning Metro Vancouver Corporate Buildings to Zero Emissions	In progress
Test New Zero Emission Building Technologies	In progress

Corporate LEADERSHIP	Low Carbon District Energy Policies	In progress
	Use Building Materials with Low Embodied Emissions	In progress
Corporate LEADERSHIP	Strengthen Metro Vancouver's Corporate Sustainable Design Requirements	In progress
	Broaden Applications of Non-Potable Water Use in Buildings	In progress
	Support Capacity Building of Non-Potable Water Use Applications on Building Sites	In progress
	Incorporate Embodied Emissions into the BC Building Code	In progress
	Require Cooling Measures in New Buildings and Major Retrofits	In progress
	Expand the Network of Public Buildings that can serve as Cool, Clean Air Centres	In progress
	Understand Climate Risk and Resilience for Public Buildings Across the Region	In progress
	Integrate Resiliency into Low Carbon Upgrade Solutions	In progress
	Provide Education on Retrofit Options that can Increase Resilience to Heatwaves and Wildfires	In progress
	Update Climate Projections to Future-Proof Buildings	In progress
	Accurately Value Zero Emission and Resilient Buildings	Not started
Corporate LEADERSHIP	New Public Buildings Set Embodied Emission Reduction Targets	Not started
	Provide Education on Retrofit Options that can Increase Resilience to Severe Storms and Flooding	Not started
	Emissions Requirements for District Energy Systems	Not started
BIG Move	Update Climate Projections to Future-Proof Buildings	Planned for Future
	Update Climate Projections to Future-Proof Buildings	Planned for Future

Transportation

IMPLEMENTATION (AS OF JUNE 2025):
OF 52 TOTAL ACTIONS: 5 COMPLETE, 29 IN PROGRESS, 14 NOT STARTED, 4 PLANNED FOR FUTURE YEARS

	ACTION	STATUS
BIG Move	Accelerate Sales Targets for New Electric Passenger Vehicles	Complete
	Regional Electric Vehicle Charging Strategy	Complete
	Regional Parking Strategy to Reduce Driving	Complete
	Make New Passenger Vehicles Cleaner	Complete

Electric Vehicle Outreach Programs	Complete
Enhance and Improve Regional Transit	In progress
Regional Bike- and Car-Sharing Strategy	In progress
Support Low Emissions Commuting by Staff	In progress
Use Pricing to Reduce Driving and Emissions	In progress
Expand Active Transportation Networks	In progress
More Stable Infrastructure Funding for Regional Active Transportation Networks	In progress
More Stable Funding for Regional Transit	In progress
Support Residents and Businesses in Active Transportation	In progress
Communicate the Benefits of Walking, Cycling and Public Transit	In progress
Implement Trip Reduction Programs	In progress
Develop Regional Emission Requirements for Passenger Vehicles	In progress
Make Electric Vehicles More Affordable	In progress
Expand Electric Vehicle Charging in Buildings	In progress
Transition the Corporate Fleet to Zero Emissions	In progress
Regulate Existing Medium and Heavy Trucks	In progress
Reduce Refuse Trucks Emissions	In progress
Support Innovation in Zero Emission Technology for Medium and Heavy Trucks	In progress
Require Zero Emission Sales Targets for New Medium and Heavy Trucks	In progress
More Stringent Low Carbon Fuel Standards	In progress
Long-term Emissions Strategy for Medium and Heavy Trucks	In progress
Regulate Fuel Economy and Emissions for Medium and Heavy Trucks	In progress
Funding for Zero Carbon Refueling Infrastructure for Medium and Heavy Trucks	In progress
Accelerate Emission Reductions from Marine Vessels	In progress
Support Emission Reduction Actions at Vancouver Fraser Port Authority	In progress
Support Innovation in Low and Zero Emission Marine and Rail Technologies	In progress
Develop Local Sources of Sustainable Aviation Fuel	In progress

Technologies for Zero Emission Aircraft	In progress
Reduce Reliance on Transportation Networks	In progress
Identify Regional Climate Hazards, Risks, and Vulnerabilities Impacting Transportation Networks	In progress
Reduce Delivery Emissions	In progress
Make Low and Zero Emission Medium and Heavy Trucks More Affordable	Not started
Large Fleets to Adopt "ZEV-First" Procurement	Not started
Accelerate Emission Reductions from Rail Locomotives	Not started
Carbon Neutral Aviation Sector	Not started
Support Low Carbon Corporate Business Travel	Not started
Support Regional Emergency Management Planning	Not started
Protect Road Networks	Not started
Protect Key Transportation Hubs	Not started
Adapt Active Transportation and Transit Networks	Not started
Minimize Risk Exposure for New Transportation Infrastructure	Not started
Create Flexible Transportation Networks	Not started
Build Climate Resilient Transportation Infrastructure	Not started
Integrate Resilient Infrastructure in to Transportation Networks	Not started
Electrification Targets for Ride-Hailing Services	Planned for Future
Use Business Licences to Support Emission Reductions	Planned for Future
Zero Carbon Refueling Strategy for Medium and Heavy Trucks	Planned for Future
Prepare for Regional Disruption	Planned for Future

Energy

IMPLEMENTATION (AS OF JUNE 2025):
OF 36 TOTAL ACTIONS: 0 COMPLETE, 26 IN PROGRESS, 8 NOT STARTED, 2 PLANNED FOR FUTURE YEARS

ACTION	STATUS
Align British Columbia's Energy Objectives with Strong Climate Action	In progress
Strong Climate Mandate for Energy Utilities	In progress
Revise Utility Regulation to Align with Strong Climate Action	In progress
Long-term Planning Scenarios for the Transition to 100% Clean, Renewable Energy	In progress
Reduce Energy Poverty	In progress
Regional Climate Action in Energy Utility Regulatory Processes	In progress
Implement Tracking, Verification, and Reporting Requirements for Renewable Natural Gas Supply	In progress
Transition Corporate Energy Use to 100% Clean, Renewable Energy	In progress
Electrification Rates	In progress
Time-of-Use Rates, Demand Response Programs, & EV Peak Reduction Programs	In progress
Modernizing the Electrical Grid	In progress
Regional Grid Constraints	In progress
High Performance Heating and Cooling Equipment Import and Sale Standards	In progress
More Stringent Low Carbon Fuel Standards	In progress
Implement Renewable Gas Content Requirements	In progress
Regional Hydrogen Hub	In progress
Regional Sources of Liquid Biofuels	In progress
Metro Vancouver as a Regional Clean, Renewable Energy Provider	In progress
Innovative Research on Optimizing Energy Recovery from Waste Streams	In progress
Account for the Full Climate Impact of Fossil Fuel Production and Export Projects	In progress
Eliminate Subsidies and Public Financing for Fossil Fuels	In progress
Just Transition Plan for Workers and Communities Engaged in the Fossil Fuel Industry	In progress

BIG Move	Comprehensive Climate Risk and Vulnerability Assessment	In progress
	Pilot Innovative Renewable Energy + Storage Systems to Improve Resiliency	In progress
	Ensure Critical Regional Infrastructure has Backup Power	In progress
	Minimize Air, Land, and Water Impacts	Not started
BIG Move	Prioritize Sustainability in Biofuel Feedstock	Not started
	Expand Anaerobic Digestion of Agricultural Waste	Not started
	Phase Down Use of Thermal Coal and Petroleum Coke	Not started
	Prepare for Regional Disruption due to Extreme Weather Events	Not started
Corporate LEADERSHIP	Protect and Increase Resilience of Existing Regional Energy Generation Infrastructure	Not started
	Protect and Increase Resilience of Existing Energy Distribution Infrastructure	Not started
	Phase Down Use of Thermal Coal and Petroleum Coke	Not started
	Streamline Emission Requirements for Anaerobic Digestion Facilities	Planned for Future
Corporate LEADERSHIP	Vehicle-to-Grid Technologies	Planned for Future

Industry & Business

IMPLEMENTATION (AS OF JUNE 2025):
OF 28 TOTAL ACTIONS: 2 COMPLETE, 16 IN PROGRESS, 2 NOT STARTED, 8 PLANNED FOR FUTURE YEARS

	ACTION	STATUS
BIG Move	More Stringent Greenhouse Gas Requirements for Large Industrial Emitters	Complete
BIG Move	Tighten Emissions Regulation for Non-Road Diesel Engines	Complete
BIG Move	Integrate Greenhouse Gases into Emission Regulations and Permits	In progress
BIG Move	Implement Renewable Gas Content Requirements	In progress
	Industrial Emission Reduction Incentives	In progress
	Develop Sector-Specific Regulations	In progress
	Provincial and Federal Industrial Emission Standards	In progress
	Carbon Tariffs	In progress
	Phase out High Global Warming Refrigerants	In progress

	Emission Standards for New Non-Road Equipment	In progress
	Funding for Cleaner Non-Road Equipment	In progress
	Identify Infrastructure Needs for Zero Emission Non-Road Equipment	In progress
	Encourage Cleaner Non-Road Equipment through Municipal Approvals	In progress
	Awareness Program on Zero Emission Non-Road Equipment	In progress
Corporate LEADERSHIP	Transition Metro Vancouver's Corporate Non-Road Fleet to Zero Emissions	In progress
	Carbon Capture in Metro Vancouver Region	In progress
Corporate LEADERSHIP	Low Carbon Metro Vancouver Corporate Procurement	In progress
	Assess Regional Climate Risks and Vulnerability to Support Business Decision-making	In progress
	Regional Industrial Facilities Emissions Working Group	Not started
	Identify Climate Vulnerability by Clusters with Industry and Business Sectors	Not started
	Develop Carbon Capture Standards	Planned for Future
	Regional Low Carbon Procurement	Planned for Future
	Integrate Climate Considerations into Standard Business Practices	Planned for Future
	Support Knowledge-Sharing to Increase Resilience to Severe Storms and Flooding	Planned for Future
	Coordinate Flood Protection and Flood Risk Management for Industrial Lands	Planned for Future
	Support Employers in Developing Response Plans for Extreme Heat and Air Quality Events	Planned for Future
	Apply Leading Water Efficiency Standards to Industry	Planned for Future
	Promote Water Efficiency Retrofit Incentives and Rebates for Industries and Businesses	Planned for Future

Nature & Ecosystems

IMPLEMENTATION (AS OF JUNE 2025):
OF 31 TOTAL ACTIONS: 1 COMPLETE, 28 IN PROGRESS, 0 NOT STARTED, 2 PLANNED FOR FUTURE YEARS

ACTION	STATUS
Explore Opportunities to Overcome Barriers to natural asset management	Complete
Protect an Additional 10% of the Region for Nature	In progress
Protect, Restore, and Enhance Natural Areas at the Regional Scale	In progress
Protect, Restore, and Enhance Nature at the Local Scale	In progress
Incorporate Climate Change Planning into Protected Area Management	In progress
Prioritize the Conservation of Ecosystem Health and Biodiversity in BC Forest Management	In progress
Support Ecosystem Protection, Enhancement, and Restoration	In progress
Reverse the Loss of the Region's Ecosystems	In progress
Manage Invasive Species	In progress
Develop a Regional Green Infrastructure Network	In progress
Green Urban Areas	In progress
Green the Regional Greenways Network	In progress
Minimize Ecosystem Fragmentation	In progress
Develop Data and Resources to Support Ecosystem Connectivity	In progress
Incorporate Natural Assets into Asset Management and Financial Planning	In progress
Integrate Ecosystems and their Services into the Design of Major Infrastructure	In progress
Consider Ecosystems and their Services in Major Development Decisions	In progress
Support Natural Asset Management at the Local Level	In progress
Achieve 40% Tree Canopy Cover Within the Region's Urban Areas	In progress
Provide Data and Resources to Support Urban Forest Management	In progress
Improve Local Regulations and Management Practices	In progress
Convene Partners on Urban Forestry Issues	In progress

	Consider Equity and Human Health in Urban Forestry Planning	In progress
BIG Move	Explore Innovative Funding and Incentive Programs	In progress
GHG	Include Nature-Based Solutions in Climate Action Plans	In progress
GHG	Support the Implementation of Nature-based Solutions	In progress
GHG	Manage Forests in the Context of a Changing Climate	In progress
	Advance Nature-Based Solutions to Address Flood Hazards	In progress
	Partner with Others to Address Climate Change Issues in Coastal and Marine Ecosystems	In progress
	Plan for Climate Change Impacts on Ecosystems	Planned for Future
	Develop our Understanding of Coastal Ecosystems and Blue Carbon Potential	Planned for Future

Agriculture

IMPLEMENTATION (AS OF JUNE 2025):
OF 68 TOTAL ACTIONS: 4 COMPLETE, 11 IN PROGRESS, 1 NOT STARTED, 52 PLANNED FOR FUTURE YEARS

	ACTION	STATUS
BIG Move GHG	Reduce Emissions from Greenhouses	Complete
BIG Move	Increase Capacity to integrate climate change into business operations	Complete
	Align with the Regional Green Infrastructure Project	Complete
	Estimate financial value of ecosystem service on agricultural lands	Complete
	Prepare a comprehensive, regional high resolution map of ecosystem services locations on agricultural land.	In progress
	Review how regional policy can recognize and support Indigenous Food Sovereignty	In progress
GHG	Encourage and Prioritize Local Agriculture	In progress
	Determine how Agriculture can Benefit from Restoration and Protection of Ecosystems	In progress
	Explore and build a long-term funding mechanism to support payment for ecosystem services	In progress
GHG	Undertake a review of the Regional Food System Strategy	In progress
	Develop a comprehensive analysis of the sub-regional sources of water used by agricultural sector.	In progress
	Provide viable and tangible solutions to ensuring water resources need by agriculture are sustainable.	In progress

	Explore innovative sources and new technology for water re-use.	In progress
	Explore ways to take advantage of rainfall collection opportunities.	In progress
	Update water demand model	In progress
GHG	Determine appropriate agricultural-focused uses on land with limited potential for soil-based agriculture	Not started
BIG Move	Prepare an Agricultural Land Protection and Viability Strategy	Planned for Future
	Better define agricultural uses, agricultural-supporting uses and clarify role of rural lands	Planned for Future
	Develop a comprehensive strategy to manage small lot agricultural lands potentially exempt from the ALCA	Planned for Future
	Advocate to Limit Utility Services Extension	Planned for Future
BIG Move	Implement soil movement tracking within agricultural areas	Planned for Future
	Change tax structure to reduce incentives for non-farm use development in ALR	Planned for Future
	Incentivize, increase viability of, and prioritize soil-based agriculture	Planned for Future
	Determine appropriate agricultural-focused uses on land with limited potential for soil-based agriculture	Planned for Future
BIG Move	Review how regional policy can be strengthened to reduce encroachment of urban uses	Planned for Future
	Review how regional policy can be strengthened to reduce negative impacts of urban development on adjacent agricultural uses	Planned for Future
	Update Section 2.2 of Metro 2050 to be consistent with November 2019 MVRD Board decision	Planned for Future
	Enhance funding to develop and implement Environmental Farm Plans	Planned for Future
	Enhance funding and develop and promote BMPs to support using Environmental Farm Plans	Planned for Future
GHG	Provide reliable incentives and technical guidance to support low emission practices	Planned for Future
	Increase awareness and accessibility to the Environmental Farm Plan	Planned for Future
GHG	Funding for programs that accelerate the use of cleaner agricultural equipment	Planned for Future
GHG	Incentives or programs that help to decommission old equipment in place of zero emission equipment	Planned for Future
GHG	Develop pilot study to test wide-spread use of zero emission agriculture equipment	Planned for Future
GHG	Expand development of anaerobic digestion facilities	Planned for Future
GHG	Help establish new anaerobic digestion facilities	Planned for Future
GHG	Support successful operation of existing anaerobic digestion facilities	Planned for Future

Prepare passive design standards specific to greenhouse operations	Planned for Future
Develop simple anaerobic digestion emission regulation	Planned for Future
Develop multi-stakeholder centralized agricultural waste collection facility in the region to support anaerobic digestion	Planned for Future
Create comprehensive information package for the agricultural sector to support anaerobic digestion facilities	Planned for Future
Create comprehensive information package for member jurisdictions on how to support anaerobic digestion facilities	Planned for Future
Provide on-line decision support tools to help greenhouse operators manage upgrades	Planned for Future
Update regional emissions inventory with greenhouse-specific data	Planned for Future
Work with the greenhouse industry to collect data on greenhouse carbon dioxide requirements	Planned for Future
Expand our collective knowledge and understanding of the role of soil health in supporting long-term agricultural viability and resilience and as a local source that can be used to help reduce carbon emissions within the Lower Mainland	Planned for Future
Work with the BC Government, member jurisdictions, the agricultural industry and other regional partners to support the long-term collection and open source provision of soil carbon data	Planned for Future
Work with the BC Government and other key stakeholders to develop actionable programs specific to soil carbon storage and wood perennial sequestration on agricultural lands, including providing benchmarking data	Planned for Future
Strengthen Outreach Program on Reducing Agricultural Emissions	Planned for Future
Prepare a regional vulnerability assessment of agricultural lands specific to climate change impacts	Planned for Future
Support pilot projects to illustrate regenerative agriculture	Planned for Future
Monitor outcomes of the BC Living Lab projects to determine alignment with regional policies	Planned for Future
Pilot program to expand local pollinator populations	Planned for Future
Develop a toolkit about a circular water economy	Planned for Future
Examine feasibility and benefits of committing to programs that address the effects of climate change on agricultural operations	Planned for Future
Introduce and support biovigilance programs to local farmers	Planned for Future
Develop guidance materials to support natural asset management	Planned for Future
Address knowledge gap between agricultural sector and the benefits and applications of regenerative agriculture	Planned for Future
Support financial investment in the agricultural sector through incentive programs and funding sources	Planned for Future

BIG Move	Establish pilot projects that carry the financial and operational burden of testing new technological and agri-tech systems	Planned for Future
BIG Move	Establish a cost-sharing or group purchase program to share new agri-tech innovations across the agricultural sector	Planned for Future
	Collaborate with agricultural-focused research and innovation entities	Planned for Future
	Develop an agricultural information network focusing on cost benefit analysis needed for farmers	Planned for Future
Corporate LEADERSHIP	Prepare an interactive information resource kit	Planned for Future
	Determine how the agricultural community can address issues raised in the Provincial Stewarding Watercourse study	Planned for Future
Corporate LEADERSHIP	Support pilot projects that focus on diversifying local food production	Planned for Future
	Develop regional signage to showcase local food production	Planned for Future
	Advocate for changes to the tax structure for agricultural properties	Planned for Future

Endnotes

1 International Energy Agency. Global Energy Review 2025. https://www.iea.org/reports/global-energy-review-2025

2 Metro Vancouver Carbon Neutral 2050 Policy and Modeling Report, 2021. https://metrovancouver.org/services/air-quality-climate-action/Documents/carbon-neutral-metrovancouver-region.pdf

3 Metro Vancouver Air Quality and Climate Action Committee Report: Climate 2050 Roadmap Update. https://metrovancouver.org/boards/AQC/AQC-2025-05-09-AGE.pdf

4 In January 2024, the Metro Vancouver Board directed staff to not proceed with engagement on a potential regulatory approach that proposed to establish GHG emission limits and GHG reporting requirements for existing large buildings. The board expressed concerns about whether Metro Vancouver was the appropriate jurisdiction to effectively implement regulations for large buildings and about affordability as it related to potential program fees

5 Clean Energy Canada, Morris J. Wosk Centre for Dialogue at Simon Fraser University. 2024. Opening the Door. https://cleanenergycanada.org/report/opening-the-door/

6 S&P Global Mobility Canadian Automotive Insights. Figure uses average of quarterly EV sales data for 2024 for Metro Vancouver CMA

7 Clean Energy Canada, Morris J. Wosk Centre for Dialogue at Simon Fraser University. 2024. The Scenic Route. https://cleanenergycanada.org/report/the-scenic-route

8 Uses 2022 data for rail emissions

9 Total for agriculture does not include GHG emissions from greenhouses, which are included in Buildings sector emissions

10 Climate Projections For Metro Vancouver. Approximately 30% more precipitation can be expected to fall on the 95th percentile wettest days, and approximately 60% more on the 99th percentile wettest days.

11 Includes GHG emissions from the Metro Vancouver region's solid waste system, including Waste-to-Energy and Landfills.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