

# ENVIRONMENTAL CHARTER

**2022-2027**

*A Climate & Environmental Action Plan*



## Environmental Charter Vision

*By 2050, Mission is 100% powered by renewable energy (primarily electricity) and is a resilient, thriving complete community, where climate action, enhanced ecosystem protection, responsible resource use, reduced risk from wildfire, and access to clean drinking water, have improved the quality of life for all people in Mission.*

## Purpose

- To guide all new City initiatives whether they are related to buildings/land use, transportation, infrastructure, or parks, to demonstrate commitment to undertaking the actions under the Plan, and work towards meeting the Charter's Vision.
- That the Charter's actions be regularly monitored to ensure effectiveness and continuous improvement through measurement of effective key performance indicators.

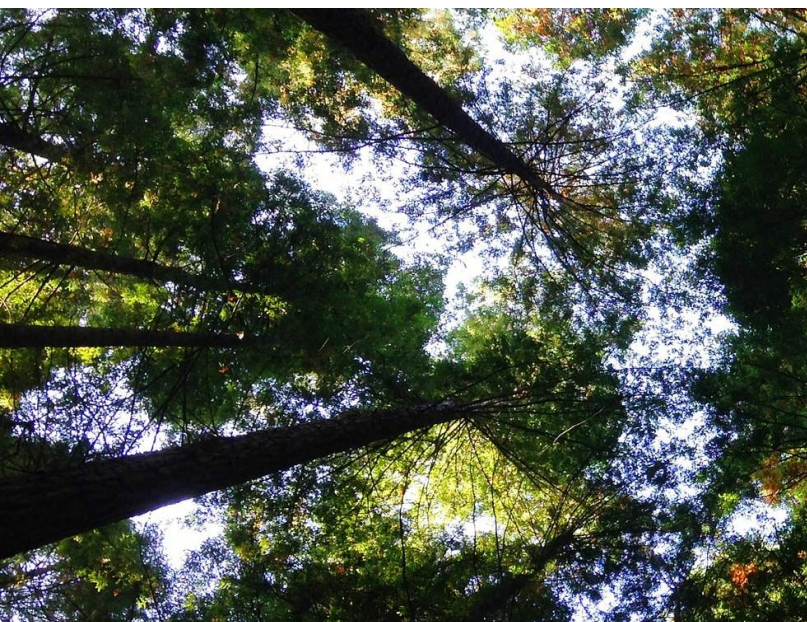


## Key Performance Indicators

The following key performance indicators will be monitored to track progress on the Environmental Charter actions:

- Community Greenhouse Gas (GHG) emissions
- Jobs in Mission per capita
- Area of park land and ESA (Environmentally Sensitive Area) per capita
- % tree canopy area within Urban Growth Boundary
- % length of separated bike lanes and multi-use paths per length of road within Urban Growth Boundary
- % length of sidewalks per length of road within Urban Growth Boundary
- % of homes within 400 metres of a bus stop
- Residential water consumption per capita
- Curbside recycling and compost diversion
- Curbside garbage per capita
- Illegal dumping cleanup costs per capita

The KPI's will be monitored and presented to Council in the annual Environmental Charter progress report, the first of which will be provided in mid-2023.



## Introduction

In May of 2021, Mission City Council directed Environmental Services staff to update the City's 2008 Environmental Charter. This updated Environmental Charter will be a 5-year action plan to address: climate change, protection and enhancement of ecosystems and green spaces, and to foster a resilient and vibrant community. With the growing events of climate change and increasing demand on our world's natural resources, we are in a time of critical importance to better steward our environment. Our decisions and actions over the next five years will demonstrate our commitment to the kind of future we want for our children and grandchildren. We must do our part and act for our children so they can enjoy a livable climate, quality of life, clean water, and opportunity to experience wildlife and fisheries, like we enjoy today.

Since 2008, the threat of increasing climate change and its impacts, including wild fires, flooding and landslides, have become a reality for the residents of BC and around the world. Therefore, a key aspect of the renewed Charter is its heightened focus on climate action and accordingly it has been sub-titled "A Climate and Environmental Action Plan."

The updated Charter combines and updates the 2008 Environmental Charter and the 2012 Community Energy and Emissions Plan (CEEP) into one document. In addition, many of the actions from 2008 Environmental Charter and the 2012 CEEP, were included in the 2017 update of the Official Community Plan (OCP) and subsequent neighbourhood planning.





The GHG reduction actions proposed under the renewed Charter are in addition to, and in support of, the federal government and the provincial government climate action plans:

## Government of Canada

In December 2020, the Government of Canada released a new strengthened climate plan: A Healthy Environment and a Healthy Economy, which includes:

- national emission reduction targets of 30% by 2030, and 100% by 2050
- an initial \$15 billion investment
- carbon tax increase of \$15 a tonne each year starting in 2023, to a total of \$170 a tonne by 2030
- phasing out traditional coal-fired power plants and embracing renewal energy
- improving building codes and standards
- investments in public transit
- mandatory sales target of 100% new light-duty vehicle and passenger trucks to be zero emission by 2035, and purchasing 5,000 zero-emission school buses
- protection of natural spaces by 25% in 2025 and 30% by 2030.

## Province of British Columbia

In October 2021, the Province of BC released its CleanBC Roadmap to 2030, which includes:

- a price on carbon pollution, meeting or exceeding federal requirements
- by 2030, all new buildings will be zero carbon, and all new space and water heating equipment will meet the highest standards of efficiency
- doubling renewable fuels by 2030
- accelerated zero-emission new light duty sales of 90% by 2030 and 100% by 2035
- 10,000 public EV (Electric Vehicle) charging stations by 2030
- support for active transportation and public transit
- reduction of methane emissions from the oil and gas sector by 75% by 2030
- support for local government climate action planning.

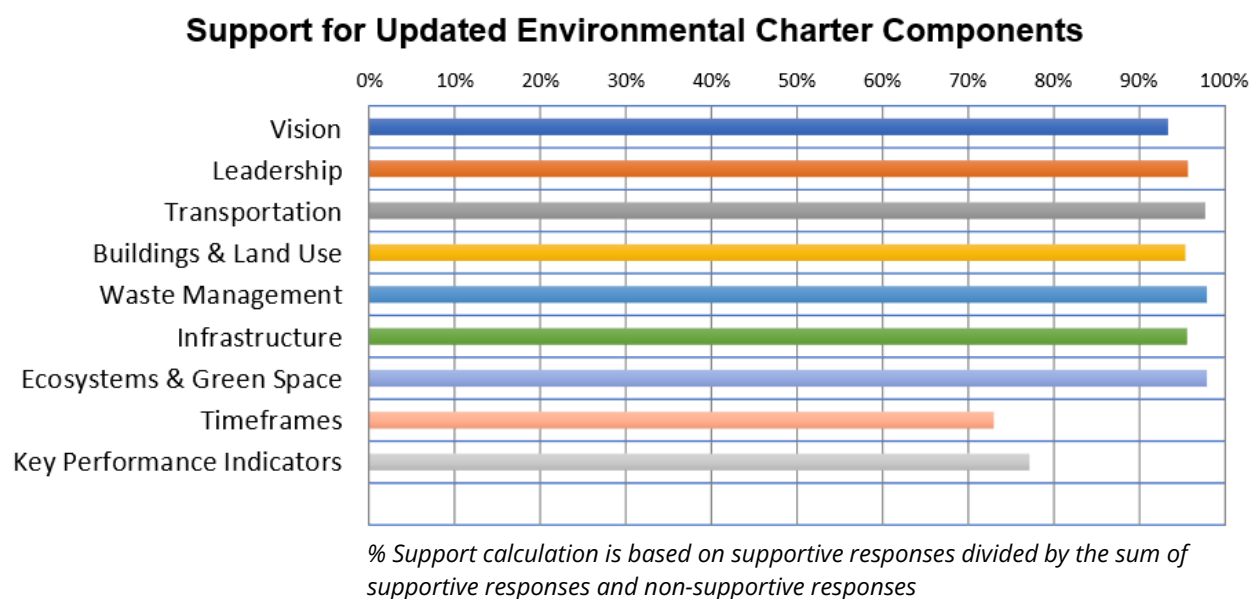
## Public Consultation and Feedback

### Initial Survey (September to November 2021)

From September to November 2021, the City posted an online survey on its Engage Mission website to obtain input from residents, businesses and other stakeholders, on actions and concerns to help guide the update to the Environmental Charter. In general, the initial survey showed strong support for actions pertaining to ecological restoration and protection, green infrastructure and wildlife. The survey also showed a high level of concern for climate change. The updated draft plan was developed with the areas of concern and suggested actions received during the survey.

### Workshop (February 24, 2022) and Survey on Draft Environmental Charter (May 1, 2022 to June 30, 2022)

A workshop on the draft plan was held on February 24, 2022, with feedback used to further revise the plan which was posted to the Mission Engage online platform for public comment from May 1, 2022, to Jun 30, 2022. In general, the Follow-up Survey confirmed strong support for the draft Environmental Charter.



The vision and actions for each charter component all received over 90% support in the survey. The timeframes provided for the actions also received a high level of support (over 70%), but many responses stated a preference for the actions to be undertaken sooner.

## Climate Action

### *Think Global, Act Local*

By 2050, Mission is projected to experience a median temperature increase of +3.1 degrees Celsius, a 12% reduction in summer precipitation, and a 46% reduction in winter snowfall (Pacific Climate Impacts Consortium, n.d.). The United Nation's Intergovernmental Panel on Climate Change (IPCC) warns that we must limit warming to 1.5 C, to avoid catastrophic climate change. This means we must cut net greenhouse gas emissions by 45% below 2010 levels by 2030, and reach net zero by 2050.

Climate change is already causing extreme weather which means increasing floods, wild fires, wild fire smoke, landslides, and infrastructure damage. These all significantly impacted BC in 2021, including the destruction of Lytton by wildfire and major flooding of the Fraser Valley.

Our goal is to act in such a way that ensures warming of not more than 1.5 C to avoid the catastrophic outcomes of a 2.0 C global temperature increase. To do so, as a city we need to act aggressively and fast to combat the catastrophic implications a warming above 2 C would have on our city and the world.

To meet the IPCC targets and to be largely consistent with the 2017 OCP, the City will need to reduce emissions by 45% from 2010 levels of 240,000 T-CO<sub>2</sub>eq\* to 156,000 T-CO<sub>2</sub>eq by 2030, and by 90% to 24,000 T-CO<sub>2</sub>eq by 2050.

*Our goal is to act in such a way that ensures warming of not more than 1.5 C to avoid the catastrophic outcomes of a 2.0 C global temperature increase.*

The 2050 target of 24,000 T-CO<sub>2</sub>eq is considered the net zero level where the emissions would be balanced by removing CO<sub>2</sub> from the air through tree planting and growth.

\* "T-CO<sub>2</sub>eq" means tonnes of carbon-dioxide equivalents which may be interpreted as tonnes of GHGs.

## The Combined Actions of the Federal, Provincial and the City of Mission

A combination of federal and provincial government policies such as the BC Building Code (including the BC Energy Step Code) and electric vehicle mandates are forecast to help stabilize emissions over time, but alone they won't be enough to reach our targets, as shown by Figure 1 below. The remaining emissions will be further reduced by the proposed additional actions by the City. However, even with the proposed additional actions, the current set of proposed actions will not meet the 2030 and 2050 targets recommended by the IPCC. It is intended that the action plan will be revised on an annual basis with updated modelling and identification of any new actions that will help meet targets.

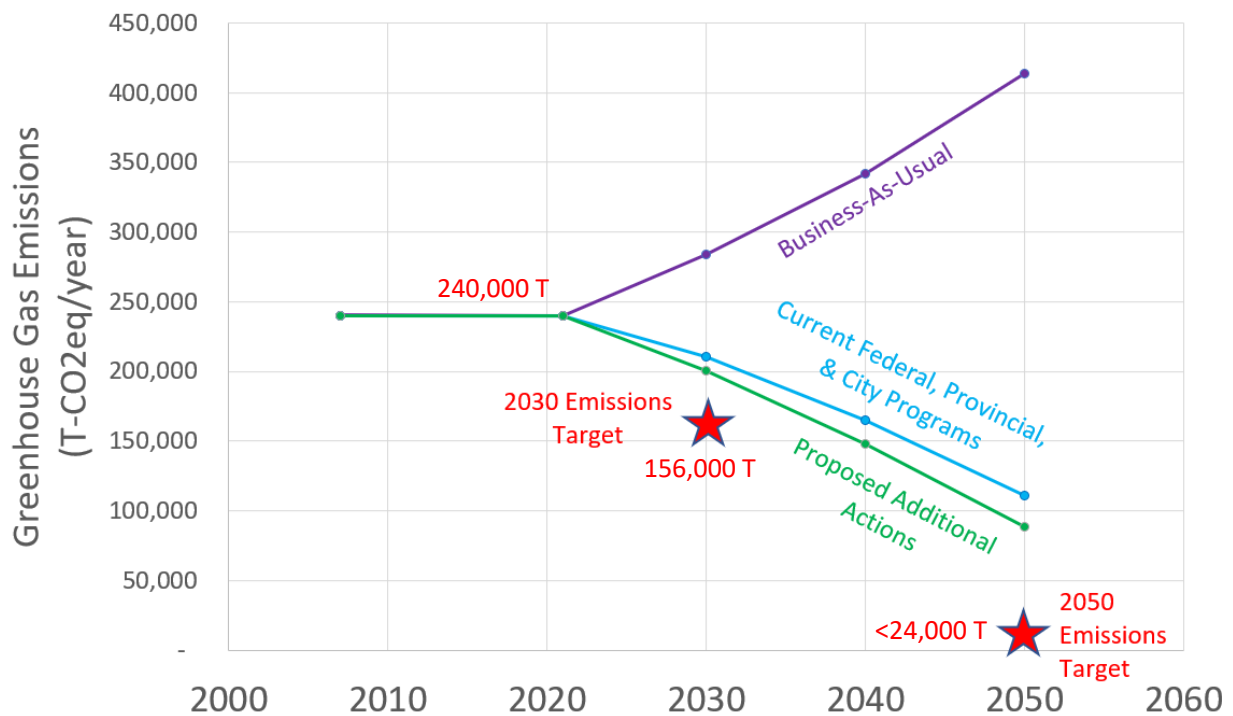


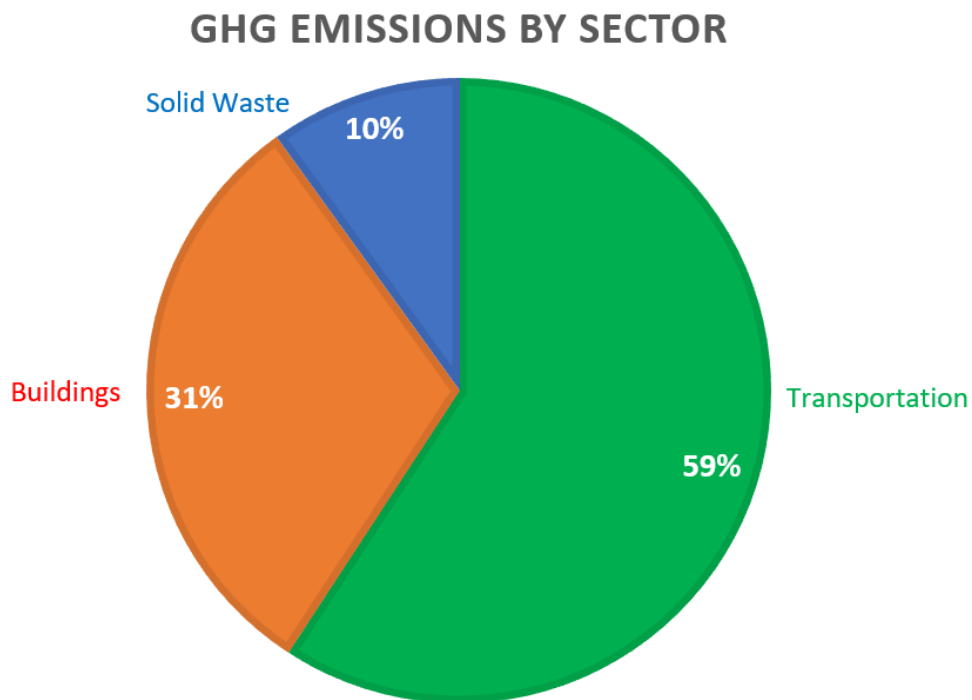
Figure 1: GHG Emissions Modelling from 2007 to 2050



## PROPOSED ADDITIONAL ACTIONS

Figure 2 below shows the breakdown of GHG emissions in the City of Mission in 2021 according to the three sectors of transportation, buildings, and solid waste. As seen in the figure, transportation represents 59% of all GHG emissions, followed by 31% from buildings, and 10% from solid waste. The proposed actions are presented under the general operational subject areas of the City: transportation, buildings, solid waste, infrastructure, and leadership.

The actions include GHG reduction actions as well as ecosystems management, and resource conservation. Many of the actions provided below will each require development and more detailed costing that will be addressed in a separate report to Council prior to potential implementation.



*Figure 2: GHG Emissions by Sector in Mission in 2021*

## Leadership

*To lead the way on climate and environmental action, the City must take a comprehensive view of its programs and ensure integration and coordination with analyses and policies to ensure they are all working together towards our climate and environmental goals.*

The actions in this section are to ensure the City is consistent with these climate and environmental commitments.

## Leadership Actions

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
L1	Annual report on Charter implementation including status of actions, KPI's, and review of how each Department's work is working towards Charter objectives and suggestions for improvements to programs to further advance Charter objectives	X	X	X	Current Staffing Env. Services	annually starting 2023
L2	Support growth management principles in land use planning initiatives and OCP, including directing multi-family growth to urban areas, and promotion of local farming	X	X	X	Current Staffing Dev. Services	ongoing
L3	Establish a Climate Change and Environment Community Working Group that meets every 3 months to advise on implementation and review of the Charter, and suggest new actions	X	X	X	\$2,500/year Env. Services	2022

## Leadership Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
L4	Support and promote the adoption of third-party sustainable initiatives (E.g.: BC Hydro's Power Smart program adopted, Waste Reduction Week, Clean Air Day, Earth Hour, Earth Day, Naturescape BC etc.) within the community	X	X	X	Current Staffing  Env. & Comm. Services	2022
L5	Enhance climate change information on City webpage	X			Current Staffing  Env. Services	2023
L6	Develop stronger partnerships with local stewardship groups and First Nations with consideration of the 9 principles of reconciliation adopted by the City in 2021	X	X	X	Current Staffing  Corp. Admin	2023
L7	Update the City's purchasing/procurement policy to include improved environmental considerations	X			Current Staffing  Purchasing Services	2023
L8	Support and encourage the 100 mile and low-impact diet through social media and development of accessible centralized information for residents	X			Current Staffing  Comm/ Env. Services	2023

## Leadership Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
L9	Encourage community gardens within new residential areas by partnering with local non-profit organizations on current food and future food security projects including new community gardens and projects regarding farmers markets, greenhouses, and regenerative agriculture	X	X	X	Current Staffing  Dev. & Env. Services	2023
L10	Incorporate environmental education opportunities into new developments through signage, website and handouts	X	X	X	Current Staffing Env. Services	2023
L11	Hold an annual climate fair to provide education on climate change as well as exchange ideas, inspire, and incentivize Mission businesses & residents	X			Current Staffing Env. Services	2023
L12	Conduct a climate change risk assessment to predict and prepare for future hazards and to develop a climate adaptation plan		X	X	\$30,000 Consultant Env., Eng. Forestry, Fire, Parks	2023
L13	Hire a consultant to assess renewable energy options including water supply hydroelectric, wind, forestry biomass, and district energy. Apply for a grant if available.	X		X	\$35,000 Consultant  Env. Services	2024



## Transportation

*How we move is responsible for 59% of total GHG emissions and is the highest emitting sector in Mission.*

These GHG emissions are primarily from the combustion of gasoline and diesel in our vehicles and trucks. Transportation that is zero-emission, such as electric vehicles, or active transportation, such as bicycling or walking, eliminates the GHG emissions. The majority of GHG reductions by 2050 will be from provincial and federal actions which will ban the sales of fossil-fuel vehicles in 2035, particularly the sale of gasoline-burning new cars and light-duty trucks. However, to support this switch from gasoline to electric vehicles, the City will be required to take additional action.

The switch from fossil fuel vehicles to electric vehicles and active transportation will also reduce the emission of pollutants to the Fraser Valley airshed and thereby improve air quality and reduce health impacts.

### Transportation Actions:

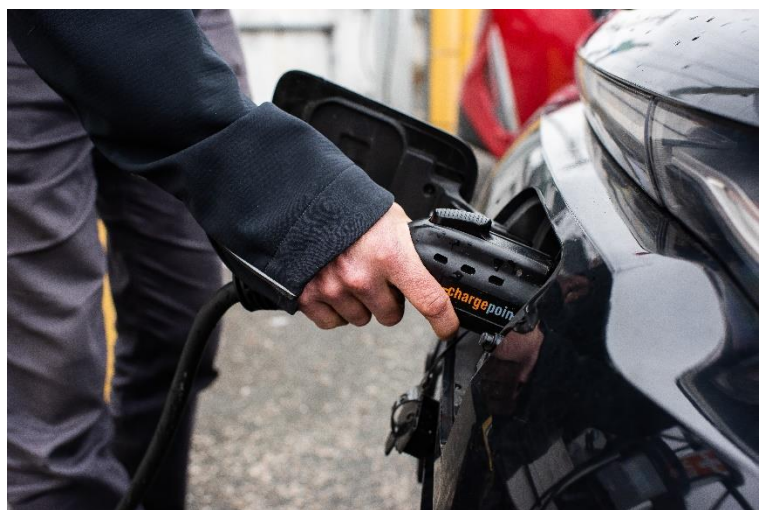
Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
T1	Accelerate Complete Street Planning through Transportation Master Planning, and OCP/neighbourhood planning (currently TMP and OCP are under review for updating) to develop a network of multi-use paths, sidewalks, bike paths, and nature trails, to connect all neighbourhoods including Waterfront, Cedar Valley, Stave Heights, Hatzic, and Silverdale, and to encourage incorporation of street trees to meet canopy objectives	X	X	X	Current Staffing  Dev. Services	ongoing

## Transportation Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
T2	Prioritize public transit and increase ridership through Transportation Master Planning (update underway), Transit Futures Planning, OCP update (underway), and neighbourhood planning	X	X	X	Current Staffing Eng. & Dev. Services	ongoing
T3	Amend Zoning Bylaw to require all new single-family houses to be EV ready (currently limited to MF and ICI)	X		X	Current Staffing Dev. Services	2022
T4	Promote Federal, Provincial, and Scrap-It BC Electric Vehicle (EV) rebates, including for electric cars, trucks, and bikes. All can be combined together to get a maximum savings of \$14,000 on a new EV. Work with BC Hydro and other organizations.	X			Current Staffing Env. & Comm. Services	2022
T5	Develop Anti-Idling Bylaw and enhanced corporate fleet program	X			Current Staffing Env. & Fleet Services	2022
T6	Assess options for incentivizing EV charging under Zoning Bylaw and OCP including neighbourhood plans	X		X	Current Staffing Dev. Services	2023

## Transportation Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
T7	Develop Green Fleet Strategy for 2023 to 2030 for City fleet vehicles to plan for all light duty vehicles to be zero emissions by 2030, including identification of funding needs	X			Current Staffing Fleet Services	2023
T8	Pursue availability of car-sharing programs (eg. Evo) and ride-hailing (eg. Uber, Lyft) for Mission	X		X	Current Staffing Env. Services	2023
T9	Work with BC Hydro and other available partners to develop support for EV charging and power management best practices at multi-family properties in Mission				Current Staffing Env. Services	2024
T10	Explore applying for ICBC's Restricted Plate Program (R Plate) to allow the local use of low-speed light duty vehicles	X		X	Current Staffing Fleet Services	2024



## Buildings and Land Use

*Buildings produce 31% of Mission's total GHG emissions.*

The primary source of greenhouse gas emissions associated with buildings is the use of natural gas for space and water heating. Since most buildings in Mission use clean hydroelectric power for all other power needs, the transition to renewable or clean heat energy systems, such as heat pumps, is essential.

Building design, is also vital to reduce the need for energy sources, which can be addressed through building highly energy efficient buildings as will be required by the BC Step Code under the BC Building Code. Establishing higher standards for new buildings through the BC Energy Step Code will be a crucial step to immerse us in the transition to zero-emission buildings. Retrofitting older homes will also be an essential step that will help establish a 'retrofit economy' in Mission, as low-carbon building becomes standard - providing local jobs to support to the local economy.

In addition, how land is used determines if amenities are close to neighbourhoods and whether the amenities can be accessed by walking, biking, transit, or a short drive. In general, higher density development has significantly lower energy use and GHG emissions. This Charter should be used to guide land use planning decisions including updates of the OCP and neighbourhood plans.

### Buildings and Land Use Actions:

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
B1	Build walkable compact, mixed-use neighbourhoods that support public transit and provide residents with good access to a wide range of amenities for meeting daily needs (eg. shopping, parks, schools) as per OCP	X	X	X	Current Staffing Dev. Services	ongoing



## Building and Land Use Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
B2	Protect and encourage employment lands to address Mission's high commuting rates and retail exportation with the aim of reducing trips out of the City for work and shopping, as per OCP	X		X	Current Staffing  Dev. Services	ongoing
B3	Incentivize the design of buildings to LEED* or equivalent green building guidelines to maximize energy efficiency, and where possible, provide energy for the 'grid' (net zero buildings), as per OCP	X			Current Staffing  Dev. Services	ongoing
B4	Incentivize the installation of heating and power systems that utilize renewable energy sources, such as solar panels, geothermal systems and district heating systems, as per OCP	X			Current Staffing  Dev. Services	Ongoing
B5	Prepare a Report to Advance the Adoption of the BC Energy Step Code to Step Code 3 if the Province does not require before 2023	X			Current Staffing  Dev. Services	2022

## Building and Land Use Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
B6	Develop communications for social media for residents to reduce their homes emissions through low-carbon technology and improved building envelopes, including those available through BC Hydro and Fortis BC	X			Current Staffing  Env. & Comm. Services	2022
B7	Conduct a corporate energy study to determine the current energy demands of municipal buildings to ensure municipal buildings are assessed a minimum of every 10 years. Apply for a grant to conduct an energy audit.	X			\$35,000 consultant  Env. Services	2023
B8	Develop a 'Sustainability Checklist' for developers/builders and one for residents—that includes both voluntary and regulatory measures	X	X	X	Current Staffing  Dev. & Env. Services	2023

## Building and Land Use Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
B9	Amend policies to require the construction of new EV charging stations at gas stations during building permit applications for both new and existing facilities financing program	X			Current Staffing  Dev. Services	2023
B10	Consider development of program to incentivize installation of heat pumps through a local financing program (eg. \$350 per heat pump), in addition to BC Hydro and Fortis BC rebates, and incentivization program for developers and/or builders	X			Current Staffing  Dev. Services	2024

*\*LEED = Leadership in Energy and Environmental Design*

## Waste Management

*Waste management produces 10% of Mission's total GHG emissions.*

The primary source of greenhouse gas emissions associated with waste management is from methane, a potent GHG, released from organic waste (like food and yard waste) as it decomposes in the landfill. Whereas the City of Mission has a high diversion rate at the curbside (approximately 67%), there is still opportunity for improvement. Reducing, reusing and recycling play a vital role in the fight against climate change to reduce our greenhouse gas emissions. In addition, diverting waste from the landfill, preserves landfill space for future use. This approach is ideal because it saves money, protects the environment, creates jobs, builds resilience, reduces emissions and promotes community.

### Waste Management Actions:

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
W1	Assess and report on grant options for implementation of a landfill gas capture system (\$1,820,000) at the landfill to reduce the significant GHG emissions (10% of total community) in advance of regulatory requirement	X			\$5,000 Consultant Env. Services	2022
W2	Assess and report on single-use plastic ban for the City to support federal nation-wide ban expected in December 2022		X	X	Current Staffing Env. Services	2022
W3	Develop a litter management strategy to reduce street litter and abandoned garbage in public spaces, including illegal dumping, with particular consideration given to key points on problem roadways and trails		X		Current Staffing Env. Services	2022
W4	Develop a zero waste strategy for large public events, including preparation of brochures and education of staff	X		X	Current Staffing Env. Services	2023



## Waste Management Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
W5	Encourage and promote repair cafes and second-hand businesses	X		X	Current Staffing Env. Services	2023
W6	Develop a policy for the expansion of the curbside collection program beyond current curbside collection area (\$500,000), or limited to just yard waste collection, Spring Cleanup, and/or a regular chipping program for rural yard waste particularly to reduce wildfire risk working with Forestry Department.	X		X	Current Staffing Env. Services & Forestry	2023
W7	Assess development of a bylaw to support the FVRD Waste Wise bylaw to require all residential, institutional, commercial and industrial operations to have waste diversion programs	X		X	Current Staffing Env. Services	2023
W8	Encourage residents and businesses to reduce resource consumption, waste and GHG emissions, by buying quality, local goods and services, through marketing and social media campaigns	X	X	X	Current Staffing Env. Services	2023
W9	Work with Joint Wastewater and City of Abbotsford to assess better odour control at JAMES Plant	X			Current Staffing Env. Services	2023

## Waste Management Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
W10	Increase promotion of Mission Environmental Stewardship Society (MESS) programs for cleanup and stewardship of streets, parks and creeks		X		Current Staffing Env. Services	2023
W11	Assess options for developing a free or cheap store at landfill to divert waste (\$300,000/year) and/or work with a non-profit particularly for dimensional wood and demolition materials.	X		X	Current Staffing Env. Services	2024



## Infrastructure

*The City's utility infrastructure for potable water, stormwater drainage, and street lighting, has greenhouse gas emissions and environmental impacts.*

Water in particular is essential to all life, which is why we need to conserve and protect our water resources. The regional system supplies water to the City of Mission and the City of Abbotsford.

As the City of Mission continues to expand, population growth and climate change will impact our access to water in the future.

The City's goal is to work together with residents and businesses to reduce water usage in Mission.

### Infrastructure Actions:

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
N1	Support the protection and integration of ecosystems as a component of green infrastructure, both for ecosystems protection and for potential cost savings to the City.	X	X	X	Current Staffing  Eng., Dev. & Env. Services	ongoing
N2	Support the introduction of green infrastructure with neighbourhood planning, and for the upgrading of municipal infrastructure to support resiliency and ecosystems	X	X	X	Current Staffing  Eng., Dev. & Env. Services	ongoing



## Infrastructure Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
N3	Increase promotion of use of water conservation in homes and gardens via social media, schools, and community events, including rain barrels, appliance rebates, shower heads, garden timers			X	Current Staffing  Env. Services	2022
N4	Develop plan to accelerate installation of water meters in all homes without meters (estimated \$16,000,000 cost before grant to be off-set in long-term by negating the need for new additional water supply), synchronized with related projects where appropriate to optimize value			X	Current Staffing  Eng. & Env. Services	2022-2023





## Infrastructure Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
N5	Review policy for conversion of street and outdoor lights to LEDs and apply for grant to accelerate conversion (total cost of conversion for remaining 5500 lights is \$2,200,000)	X		X	Current Staffing Eng., PW & Env. Services	2023
N6	For athletic fields, review irrigation efficiency every five years			X	Current Staffing Parks & Env. Services	2024
N7	Consider completing integrated stormwater management plans for significant watersheds within the City and integration with land use and neighbourhood planning		X	X	\$25,000 Consultant Env. & Dev. Services	2024
N8	Confirm location of shallow aquifers supplying drinking water in rural areas and implement a protection program and signage			X	\$25,000 Consultant Env. Services	2024

## Ecosystems and Greenspaces

*The City of Mission has an abundance of forests, streams and wetlands, and recreational opportunities that provides benefits to our residents and visitors, and of course to wildlife.*

Actions to protect and enhance greenspaces can strengthen our ecosystems, increase biodiversity, protect fisheries, and increase the tree canopy for shade and temperature reduction during heat waves. Trees also counter climate change through carbon sequestration. Wildfires are a major risk to the City of Mission, especially with increasing climate change, and therefore the City created a Community Wildfire Protection Plan Update in 2019 for Mission Fire and Rescue.

The enhancement and protection of ecosystems was the area of highest interest in the survey. In addition to environmental benefits, enhancement and protection of greenspaces, also benefits human health and wellbeing by providing access to nature, as well as improving air and water quality, and also recognizes the cultural and historic significance of many natural features.

### Ecosystems and Greenspaces Actions:

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
E1	Ensure a maximum 5-minute walk to accessible green space for each new development and work towards same for older developments through new or expanded green space and parks, as per OCP. Costs are dependent on development and site-specific conditions.	X	X		Current Staffing  Dev. Services	ongoing
E2	Coordinate with OCP updating and development of neighbourhood planning to require bio-inventory reports prepared by QEPs across City (not just Cedar Valley)		X		Current Staffing  Dev. & Env. Services	ongoing

## Ecosystems and Greenspaces Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
E3	Develop and implement a land clearing management bylaw to prevent the uncontrolled cutting of trees on a large-scale.	X	X	X	Current Staffing Env. Services	2022
E4	Develop a new/updated soil bylaw that combines the current Soil Deposit Bylaw and Soil Removal Bylaw and addresses deficiencies		X		Current Staffing Eng. Services	2022
E5	Develop an information program for land owners with watercourses on their property that outlines regulatory responsibilities and best management practices for maintaining and enhancing aquatic ecosystem, and promote through social media		X		Current Staffing Eng. Services	2022
E6	Develop and implement a streamside protection bylaw to further protections provided by provincial Riparian Areas Protection Regulation, similar to Abbotsford and Surrey	X	X	X	Current Staffing Env. & Dev. Services	2023

## Ecosystems & Greenspaces Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
E7	Complete a tree canopy assessment and development of a tree canopy management program to monitor and enhance the tree canopy including encouragement of tree retention and tree planting, including consideration of tree seedling giveaways.	X	X	X	\$30,000 Consultant  Env. Services	2023
E8	Conduct a review of watercourses with fish barriers and impediments to passage, and develop a policy for removal of barriers, including daylighting of watercourses		X		\$10,000 Consultant  Env. & Dev. Services	2023
E9	Increase bear aware and other wild safe initiatives via social media and signage on trails		X		Current Staffing  Env. Services	2023
E10	Develop a natural asset management plan to protect and value Mission's natural assets, particularly wetlands, watercourses, and forests	X	X	X	\$25,000 Consultant  Env. & Dev. Services	2024
E11	Create a Biodiversity Conservation Strategy		X	X	Current Staffing  Env. Services	2024 years

## Ecosystems and Greenspaces Actions continued...

Action #	Description	Environmental Category			Estim. Cost Impact & Lead	Time Frame
		GHG Reduction & Air Quality	Ecosystems & Greenspace	Conserving Resources		
E12	Develop a handbook for woodlot and agricultural land owners that outlines best management - practices for maintaining biodiversity on private lands	X	X	X	Current Staffing Env. Services	2024
E13	Develop a brochure to encourage landscaping with native species to preserve, protect, and enhance biodiversity on private land, and promote through social media		X	X	Current Staffing Env. Services	2024
E14	Develop and implement a sediment and erosion control bylaw for development		X		Current Staffing Eng. Services	2024
E15	Increase promotion through social media of invasive species management for residents		X		Current Staffing Env. Services	2024
E16	Take steps to eliminate additional key invasive plants (English ivy, Himalayan blackberry, holly, scotch broom) from municipal properties (parks, riparian areas, parks, road right of ways, landfill).		X		\$50,000 Contractor Env. Services	2024
E17	Work toward implementing a ban on the use of pesticides that are for aesthetics purposes		X	X	Current Staffing Env. Services	2024
E18	Become an official "Bear Smart" community		X		\$15,000	2025

## Proceeding with the Actions

The major actions in the lists above are summarized below. These major actions are generally planned to be implemented first. These actions have the most significant impact and are the highest priority. In general, all actions will require Department coordination, additional study, public consultation, and ongoing mobilizations as well as sufficient staff capacity to support implementation of the Charter. Most major actions will come forward to Council for approval with a budget and analysis for approval before proceeding.

### Leadership

- 1) Annual review and status report on Environmental Charter actions and key performance indicators (Action L1)
- 2) Establish a Climate Change and Environment Community Working Group (Action L2)

### Transportation

- 1) Encourage and support the transition to electric vehicles (Actions T3, T4, T5, T6)
- 2) Develop anti-idling bylaw (Action T7)

### Buildings and Land Use

- 1) Advance the BC Energy Step Code to Step Code 3 for the City (Action B5)
- 2) Develop communications to promote and educate residents on how to reduce home GHG emissions (Action B6)
- 3) A corporate facility energy and GHG emission assessment to determine current opportunities to reduce energy use and GHG emissions. (Action B7)

### Waste Management

- 1) Assess grant options for landfill gas capture (Action W1)
- 2) Assess and report on single-use plastic ban options (Action W2)

### Infrastructure

- 1) Develop a plan to accelerate implementation of water meters in (Action N4)
- 2) Review policy of conversion of street lights to LED (Action N5)

### Ecosystems and Green Space

- 1) Implement a land clearing management bylaw (Action E3)
- 2) Implement a streamside protection bylaw (Action E6)
- 3) Complete a tree canopy assessment and development of a tree canopy management program (E7)





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