

Climate Action Plan Implementation

2021 Annual Report - Phase One



Photo by: David Warner

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Introduction

On July 21, 2020, Port Moody City Council adopted the Climate Action Plan (CAP), an integrated plan that outlines a vision for how the City and Community will reduce greenhouse gas (GHG) emissions and prepare for future climate changes. The CAP includes targets, goals, and actions to protect our community, improve our quality of life, and reduce greenhouse gas emissions. The CAP outlines the following vision that will guide action and implementation:

“Port Moody is a resilient community that honours climate justice, leading the urgent response to climate change through collective action.”

-Climate Action Committee

In February of 2021, Council endorsed the 2021-2022 Phase One Climate Action Implementation Strategy that initiates implementation of 23 out of the 54 actions in the Climate Action Plan. Since February 2021, staff have been working to implement the actions and track their progress. Implementation and tracking information has been compiled into this 2021 Annual Report.

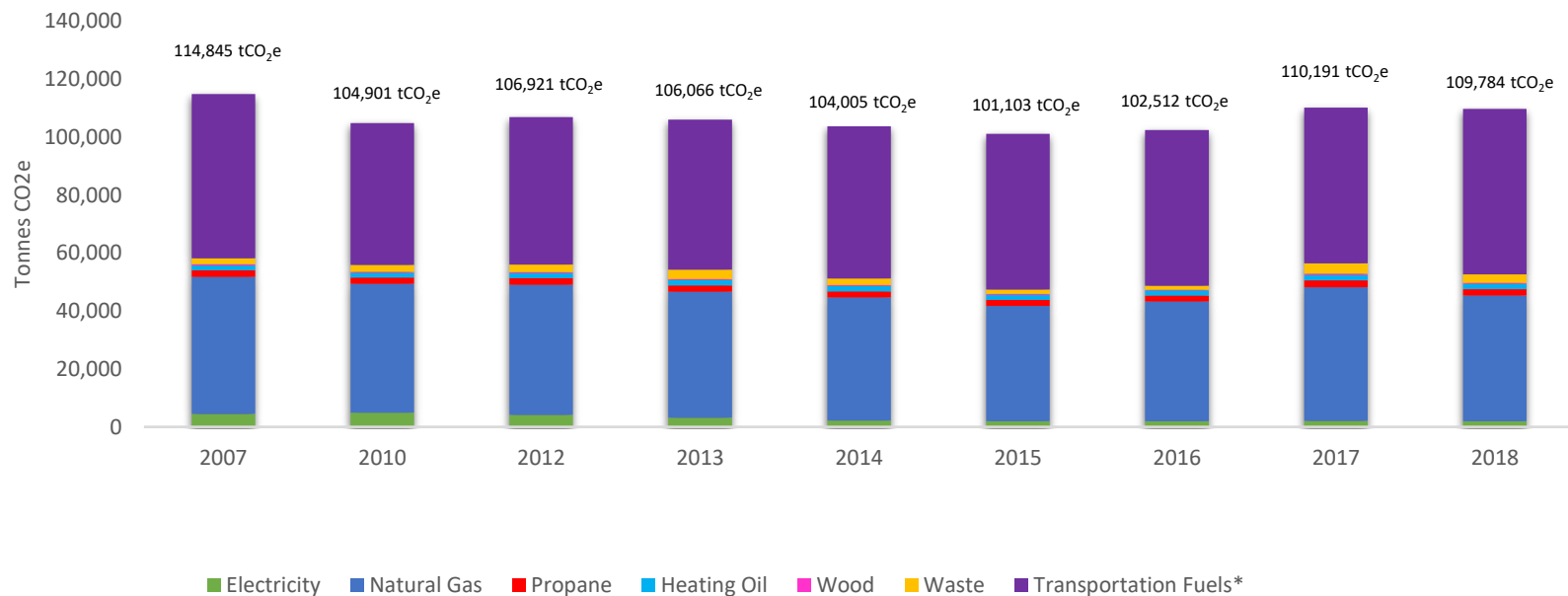
Progress on Community GHG Targets

The latest Port Moody community-wide GHG emissions inventory is for 2018 and comes from the [Province of BC Community Energy and Emissions Inventory](#). The latest update shows:

- Overall community-wide emissions decreased by 4% between 2007 and 2018;
- Fossil fuel use in transportation followed by building operations remains the largest source of GHG emissions in the community;
- Building emissions decreased by 11% between 2007 and 2018;
- Transportation emissions increased by 1% between 2007 and 2018; and
- Solid waste emissions increased by 40% from 2007 to 2018 (largely due to changes in data available).

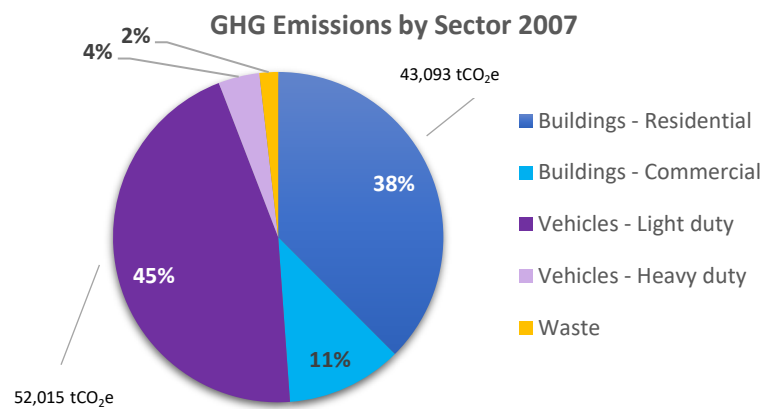
Several methodology updates over the years have proved challenging in consistently tracking community GHG emissions. A variety of data constraints also mean that caution should be applied when drawing conclusions from changes in emissions inventory years, particularly related to transportation and waste. The City will continue working with regional partners, the Province, ICBC, BC Hydro, and FortisBC to acquire more frequent, reliable data at the local level to assist reporting on progress. The table below shows Port Moody’s community GHG emissions for each year available. Port Moody’s GHG reduction targets utilize 2007 as the baseline year. The trend shows that while a 4% reduction in emissions occurred between 2007 and 2018 despite population growth and more activity (e.g. construction and vehicles), community emissions have remained above 100,000 tCO₂e ranging between 101,000 tCO₂e at the lowest and nearly 115,000 tCO₂e at the highest.

Community GHG Emissions - Fuel Sources (tCO₂e) by Year

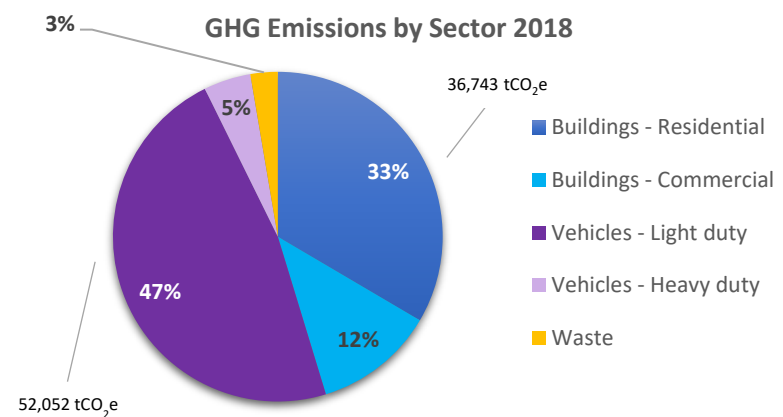


*Community transportation emissions are back-cast by population growth.

The graph above illustrates that transportation fuels and natural gas contribute the most community GHG emissions. The graphs below depict the shift in community GHG emissions by sector between the baseline year 2007 and 2018. Transportation and Buildings remain the dominant source of GHG emissions.

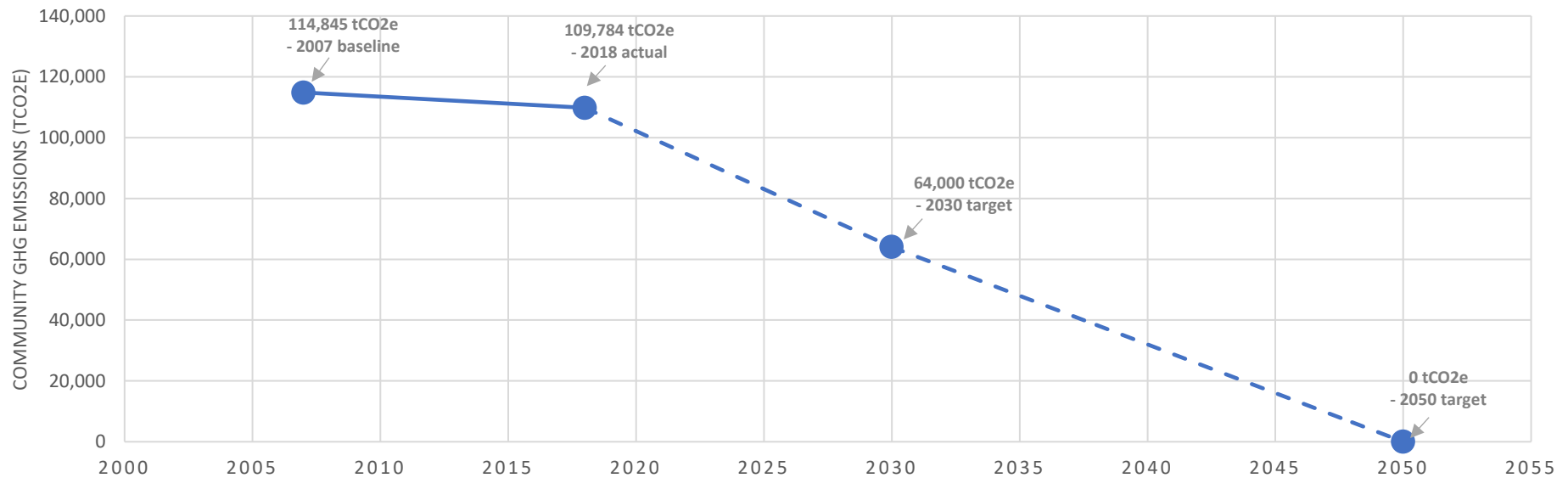


2007 GHG emissions = 114,845 tCO₂e



2018 GHG emissions = 109,784 tCO₂e

Port Moody Community-Wide GHG Emissions and Targets



Through the 2020 Climate Action Plan, Port Moody has committed to reducing GHG emissions 40% from 2007 levels by 2030 and to carbon neutrality by 2050. The graph above shows the progress Port Moody has made towards these targets. The latest community emissions inventory update shows that overall Port Moody is not yet on track for these targets. While the 4% reduction is a step in the right direction, it is nowhere near the level of sustained GHG reductions that will be necessary to achieve targets. The latest inventory shows a time before the CAP was adopted and implemented; therefore, staff anticipate greater GHG reductions in future years as the CAP is implemented. Staff continue to focus resources and initiating actions that have a high potential to reduce GHG emissions and increase climate resilience.

It's important to recognize that the latest community emissions inventory shows a time before implementation of many local and province-wide initiatives such as the 2020 Climate Action Plan, enforcement of the Energy Step Code, and increased provincial incentives for fuel switching of home heating systems and the purchase of electric vehicles. Recently, higher levels of government have enhanced their climate action commitment¹ that will have trickle down effects on Port Moody's GHG emissions. Staff anticipate greater GHG reductions in future updates of the community emissions inventory and as the CAP is implemented.

Between 2007 and 2018 5,061 tCO₂e were reduced. This means that to achieve the 2030 reduction target 45,784 tCO₂e will need to be reduced between 2018 and 2030. This reduction equates to approximately 3,815 tCO₂e per year. Given that the Climate Action Implementation Strategy did not initiate until 2021 and anticipating that there is a ramping up period to get the reductions underway, it is anticipated that annual reductions between 2022-2030 will need to be closer to 5,087 tCO₂e to stay on target.

¹ CleanBC Roadmap to 2030: https://www2.gov.bc.ca/assets/gov/environment/climate-change/action/cleanbc/cleanbc_roadmap_2030.pdf

Sector Climate Action GHG Emissions Reduction Targets

There are several sector specific targets in the CAP that are being tracked to indicate climate action progress. The targets span three mitigation focus areas – Buildings, Transportation and Mobility, and Waste Reduction and Management. The table below lists the committed targets and their progress to date. Some of the targets are in progress as staff do not have methods to measure these currently, however, work is underway to explore ways to track in future years.

| Focus Area CAP Targets | | Target Year | Progress on Targets |
|--------------------------------|--|-------------|--|
| Buildings | All new and replacement heating and hot water systems are zero emissions. | 2030 | In progress; Currently community GHG emissions inventories do not distinguish heating and hot water system types per home, however staff are working with the Province, regional partners, and utilities to acquire more frequent, reliable data at the local level. |
| | All oil and propane heating and hot water systems are replaced with zero emission systems. | 2030 | |
| | All buildings have replaced heating and hot water with zero emission systems. | 2050 | |
| Transportation and Mobility | Residents walk, cycle or take transit for 40% of trips (up from 17% in 2017). | 2030 | In progress; mode share progress will be updated as part of the Master Transportation Plan update. |
| | 40% of passenger vehicles, and 25% of commercial vehicles are electric. | 2030 | Passenger % of EVs in 2020 = 3% Commercial % of EVs in 2020 = 0% |
| Waste Reduction and Management | Minimize waste going to landfill and achieve zero emissions from waste. | 2050 | 2018 waste emissions = 2,936 tCO ₂ e 2018 waste tonnage = 10,067 tonnage of waste sent to landfill 2020 waste diversion rate = 74% |

Phase One Climate Action Progress

The Climate Plan identifies 54 actions to be implemented over the coming years, of which 23 will be initiated before the end of 2022. The 23 actions span all 8 focus areas and work towards 13 goals of the Climate Action Plan. As progress is being tracked between 2021-2022, percent of progress does not accurately account ongoing and long-term actions. The goal of phase one is to initiate 23 actions, of which 20 have been initiated as of the end of 2021 (87%) however, many action implementation timelines exceed phase one implementation (end of 2022). The progress below indicates action implementation progress, which will be lower than the rate of actions initiated. When the timeline of implementation actions is compared against the 2030 targets timeline that these actions are working towards, implementation progress should be benchmarked against a 20% per year target to allow realization of GHG reductions from implementation before 2030.

Climate Action Implementation Dashboard

Of the 23 actions being implemented, 18 actions (78.26%) are On Track, with an additional 3 (13.04%) actions Upcoming in 2022. One (4.35%) of the Phase One actions is currently experiencing Some Disruption and 1 action (4.35%) has been Completed. Overall, the 2021-2022 Phase One Climate Action Implementation Strategy is 25% implemented. Staff interpret Phase One Climate Action implementation as being on track as expressed above.

| | | |
|------------|-----------|-----------|
| 8 | 13 | 23 |
| Focus Area | Goal(s) | Actions |



| Progress on Phase One Actions for Each Focus Area | | | | | | | |
|---|---------------------------|------------------------------|------------------------------|----------------|-----------------------------------|---------------------|-------------------|
| Buildings | Transportation & Mobility | Waste Reduction & Management | Land Use & Growth Management | Infrastructure | Emergency response & Human Health | Natural Environment | Organization-Wide |
| Progress 49% | Progress 6% | Progress 8% | Progress 10% | Progress 10% | Progress 5% | Progress 33% | Progress 52% |

| Action Reporting Status | |
|-------------------------|---|
| On Track | Work is progressing and the action is anticipated to meet the designated time frame. |
| Ongoing | The action has no identified completion timeline and requires continuous work on an annual basis. |
| Some Disruption | Work has either not started or it is progressing, but the pace of effort needs to increase before it can be considered on track to meet the designated timeframe. |
| On Hold | The action is currently on hold and work is not progressing. |
| Upcoming | The action has not yet started and is slated for implementation in the future. |
| Completed | The action has been implemented. |

Buildings

Buildings are the second largest source of emissions in the community. The latest 2018 community-wide greenhouse gas (GHG) inventory indicates that there has been an 11% decrease in emissions from buildings in the community between 2007 and 2018. Progress was made due to increases in the energy efficiency of home heating, cooling and hot water systems, fuel switching, and better insulation of walls, windows, and doors, supported by the Provincial Building Code energy efficiency standards and home energy retrofit rebates.

Port Moody is not yet on track to meet 2030 GHG reduction targets in the buildings area. Port Moody has made progress on climate action by adopting the BC Energy Step Code with a focus on low carbon energy systems, supporting building industry capacity development, pursuing energy benchmarking, and labelling, and advocating for climate focused building regulation in BC. As foundational actions from the CAP (e.g. Climate Ready Homes and Buildings Plan, facility climate audit recommendations) are implemented, GHG reductions will be realized in future years.

Progress on Building Targets

| | | | |
|----------------------------|-------|---------------------------------|---------------------------|
| Baseline: | 2007 | Port Moody's building emissions | 56,111 tCO ₂ e |
| Latest Measurement: | 2018 | Port Moody's building emissions | 49,718 tCO ₂ e |
| Progress | ↓ 11% | | |

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|-----------------|--------------|
| Actions 1.1.1 | Sustainability Report Card Update Improved review tool that allows applicants to prepare proposals that address the City's environmental goals by promoting sustainable development. Revise the City's Sustainability Report Card to include performance measures to reduce operational and embodied GHG emissions and climate risks. | May 2020 | Jul 31, 2021 | Some Disruption | Progress 80% |
| Actions 1.1.2 | Facility Climate Audits Perform comprehensive climate audits on all civic facilities and prioritize upgrades where feasible and highest risk. | Oct 30, 2020 | Dec 31, 2022 | On Track | Progress 14% |

| | | | | | |
|---------------|---|--------------|--------------|----------|--------------|
| Actions 1.1.3 | Climate Ready Homes and Buildings Plan Develop a resilient, zero-emissions plan for all new and existing buildings that includes addressing indoor air quality and climate risks where possible. | Jan 04, 2021 | Jul 31, 2022 | On Track | Progress 20% |
| Actions 1.1.4 | Federal/Provincial Building Advocacy Initiate/continue discussions with federal and provincial governments to advocate for authority, financing tools, benchmarking, and other policies essential for achieving zero emissions buildings. | Jul 01, 2020 | Dec 31, 2022 | On Track | Progress 80% |

Progress of Key Performance Indicator

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|--|--|---|--|
| 1.1.1 | Report Card User Satisfaction | TBD | TBD | No update as the sustainability report card update is still underway. |
| 1.1.1 | Report Card Average Score | TBD | TBD | No update as the sustainability report card update is still underway. |
| 1.1.2 | Annual Facility Energy Consumption | 2016 – 39,404 GJ | 2020 – 41,227 GJ | While energy usage has increased in 2020, emissions decreased due to reduced use of natural gas. 2021 numbers will be available in early 2022 and are therefore not included in this update. |
| 1.1.2 | Annual Facility GHG Emissions | 2016 – 992 tCO ₂ e | 2020 – 575 tCO ₂ e | Significant emissions reduction in 2020 is due to COVID-19 facility closures that resulted in reduced natural gas usage. 2021 numbers will be available in early 2022 and are therefore not included in this update. |
| 1.1.2 | Number of facilities with completed climate audits | 2020 - 0 out of 26 facilities | 2021 – 0 out of 26 facilities | Delay in beginning work due to pending Federation of Canadian Municipalities (FCM) funding application. Work is underway as of November 2021. |
| 1.1.3 | Annual community building energy consumption | 2007 Elec - 647,838 GJ NG - 949,464 GJ Prop - 37,535 GJ | 2018 Electricity - 669,997 GJ Natural Gas - 868,393 GJ Propane - 35,864 GJ | N/A |

| | | | | |
|-------|---|-------------------------------------|---|---|
| | | Oil - 25,355 GJ Wood - 15,101 GJ | Heating Oil - 24,226 GJ Wood - 14,428 GJ | |
| 1.1.3 | New Units Built with GHG Reduction and Resiliency Measures | TBD | 2021- 16 | 14 Energy Step Code projects under construction, 2 Energy Step Code projects occupied in 2021 |
| 1.1.3 | Units Renovated with GHG and Resiliency Measures | 2020 - 0 | 2021 - 2 | two units in MURBS had added energy efficient mechanical cooling |
| 1.1.4 | Number of organizations supporting advocacy messages | 2020 - 0 | 2021 - 36 BC municipalities, 7 NGOs | N/A |
| 1.1.4 | Number of Advocacy Events Engaged In | 2020 – 0 | 2021 – 7 | Events include meetings with Ministers and Provincial staff. Events have resulted in anticipated altered policy. |
| 1.1.4 | Number of Altered Policies as a Direct or Indirect Result of Advocacy | 2020 - 0 | 2021 – 2 in progress | Province has committed to carbon performance standards for new construction and is developing a roadmap for PACE financing. |

Transportation and Mobility

Transportation remains the largest source of GHG emissions in Port Moody. The latest 2018 community emissions inventory indicates that there has been a 1% increase in emissions from transportation. Light and heavy-duty vehicles are the major GHG emitting culprits, however, the registration of electric and hybrid vehicles has increased from 402 vehicles in 2016 to 1,114 vehicles in 2020. Based on the most recent transportation survey data, almost 83% of trips in Port Moody are made by vehicle and three quarters of those are single-occupancy trips. Of the remaining trips, half are by transit, half are by walking and a negligible number are by bicycle. Port Moody has made progress on mobility-related climate action by operating and maintaining electric vehicle (EV) charging stations, improving walkability, connecting mobility nodes, purchasing zero emission vehicles, and requiring EV charging infrastructure in new developments. As foundational actions from the CAP (e.g., updated Master Transportation Plan, fleet assessment) are implemented, GHG reductions will be realized in future years.

Progress on Transportation and Mobility Targets

| | | | |
|----------------------------|------|---------------------------------------|---------------------------|
| Baseline: | 2007 | Port Moody's transportation emissions | 56,634 tCO ₂ e |
| Latest Measurement: | 2018 | Port Moody's transportation emissions | 57,129 tCO ₂ e |
| Progress | ↑ 1% | | |

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|--|--------------|--------------|----------|--------------|
| Actions 2.1.1 | Reduce Fleet Greenhouse Gas Emissions Conduct a utilization assessment of the City's fleet and identify opportunities to increase efficiency and reduce GHG emissions. | Dec 01, 2020 | Dec 31, 2022 | On Track | Progress 14% |
| Actions 2.2.1 | Update and Accelerate Master Transportation Plan Update, accelerate and fund implementation of the Master Transportation Plan projects to reduce GHG emissions by 2030, including accelerating alternative transportation goals, and initiatives focused on transit, transit-oriented development, and paths and trails. | Oct 01, 2021 | Jun 30, 2023 | On Track | Progress 5% |
| Actions 2.3.1 | Zero Emissions Mobility Strategy Develop a community zero-emissions mobility strategy. | Jan 03, 2022 | Dec 22, 2023 | Upcoming | Progress 0% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|--|--|----------------------------------|--|
| 2.1.1 | Fleet Related GHG Emissions | 2007 – 714 tCO ₂ e | 2020 - 693.34 tCO ₂ e | Fleet data for 2021 will be available in early 2022 and therefore was not included in this update. |
| 2.1.1 | Number of Zero Emissions Vehicles in the City's Fleet | 2007 - 0 | 2021 - 4 | Two electric ice resurfacers, electric Bylaws vehicle, electric off-road parks vehicle. |
| 2.2.1 | Mode split ratios of transportation methods in the community | 2011 • Driver, Passenger = 80% • Bicycle, Transit, Walking = 20% | TBD | Information unavailable this year. Mode share progress will be updated as part of the Master Transportation Plan update. |
| 2.2.1 | Number of Traffic related fatalities | 2009-2013 = 1 | TBD | Information unavailable this year. |
| 2.2.1 | Vehicle kms Travelled | 2016 = 10 km/person/day | TBD | Information unavailable this year. |
| 2.2.1 | Number of Traffic Crashes | 2009-2013 = 700 per year | TBD | Information unavailable this year. |

| | | | | |
|-------|---|---|----------------------------------|--|
| 2.3.1 | Annual Community Transportation Emissions | 2007 – 56,634 tCO ₂ e transportation | 2018 - 57,129 tCO ₂ e | Estimated 1% increase. |
| 2.3.1 | Number of Public/Private Owned EV Charging Stations in Port Moody | 2018 - 8 | 2021 - 9 | City-owned DC fast charging station was added in 2019. |
| 2.3.1 | Annual Zero Emissions Vehicles Registered in Port Moody | 2019- 382 | 2020 - 472 | 24% increase in EVs registered in Port Moody. |

Waste Reduction and Management

Based on the 2018 community emissions inventory, emissions from waste have increased by 40% between 2007 and 2018, however, changes in access to data since 2017 have increased the tonnage attributed to Port Moody. Therefore, while waste has appeared to have increased significantly in recent years, it's likely that historical waste tonnage was higher than reported. Due to limitations of data, caution should be applied when drawing conclusions from regional solid waste data. Port Moody has held its high diversion rate of 74% in 2020. Although tonnage of waste increased from 4,610 tonnes in 2007 to 10,167 tonnes in 2018, waste only contributes approximately 3% of total community GHG emissions. Waste reduction continues to be a priority in the community and Port Moody has made progress such as continuing the dog waste diversion program, providing community waste information campaigns, and curbside collection of recycling and organics. Staff anticipate that as many of the foundational actions from the CAP (e.g. advocate for and collaborate on regional waste initiatives, develop a zero waste strategy for city facilities and events) are implemented that GHG reductions will be realized in future years.

Progress on Waste Reduction and Management Targets

| | | | |
|----------------------------|-------------|------------------------------------|--------------------------|
| Baseline: | 2007 | Port Moody's solid waste emissions | 2,100 tCO ₂ e |
| Latest Measurement: | 2018 | Port Moody's solid waste emissions | 2,936 tCO ₂ e |
| Progress | +40% | | |

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|----------|-------------|
| Actions 3.1.1 | Metro Vancouver Solid Waste Advocacy Initiate/continue discussions with Metro Vancouver to advocate for initiatives and policies to reduce waste, increase capture of methane at landfills, and increase reporting and awareness on waste generation. | Jan 01, 2020 | Dec 31, 2022 | On Track | Progress 8% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|---|------------|------------|---|
| 3.1.1 | Percentage of waste diverted from the landfill | 2019 – 70% | 2020 – 74% | 2021 diversion numbers will be available in mid-2022. |
| 3.1.1 | Number of Staff Attending Regional Committee Meetings | 2020- 2 | 2021 - 2 | N/A |

Land Use and Growth Management

Land use decisions made by local governments profoundly influence the environmental, social and economic health of communities. Density levels and land use mixes will determine travel distances between the places where residents live, work and play. The economic vibrancy of any given neighbourhood and the potential for district energy also hinge on the mix and density of land uses found there. Street design, combined with investments in transit and cycling infrastructure, greatly influence residents' transportation choices and the resulting GHG emissions. Port Moody has made progress on informed and climate-friendly land use decisions such as encouraging density around transportation hubs, assessing transportation demand impact of new developments, and evaluating the risk of climate impacts on land use such as coastal flooding. Staff anticipate that as many of the foundational actions from the CAP (e.g. TDM strategy requirements for developments and developing a Coastal Flood Management Strategy) are implemented that increased resilience and GHG reductions will be realized in future years.

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|----------|--------------|
| Actions 4.2.1 | Encourage TOD Density Encourage density and mixed-use neighborhoods around transportation hubs through the Official Community Plan and development applications. | Jan 31, 2021 | Dec 31, 2023 | On Track | Progress 15% |
| Actions 4.2.2 | Transportation Assessment for New Developments Require developers to include comprehensive transportation demand management (TDM) strategies in proposals for new large development projects. | Oct 01, 2021 | Jun 30, 2022 | On Track | Progress 20% |

| | | | | | |
|---------------|---|--------------|--------------|----------|-------------|
| Actions 4.3.1 | Fraser Basin Council Flood Collaboration Continue to work with the Fraser Basin Council on the Lower Mainland Flood Management Strategy and public education on flood risk. | Jan 01, 2020 | Dec 31, 2022 | On Track | Progress 5% |
| Actions 4.3.2 | Coastal Flood Management Strategy Develop a Coastal Flood Management Strategy to assess and respond to coastal flooding, coastal squeeze, shoreline erosion and inundation. | Jan 10, 2022 | Dec 31, 2024 | Upcoming | Progress 0% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|--|--|-------------------------|---|
| 4.2.1 | Percent of new dwelling units approved within an 800m distance to transit stations | TBD | TBD | In progress; TBD |
| 4.2.1 | New Commercial floor area built within 800m of transit | TBD | TBD | In progress; TBD |
| 4.2.2 | Community Walk Score | 2021 walk score - 42 2021 bike score - 42 | TBD | 25-49 = car-dependent community 0-49 = somewhat bikeable community |
| 4.3.1 | Annual Staff Participation in Fraser Basin Council LMFMS Process | 2020- 1 | 2021 - 4 | N/A |
| 4.3.2 | Budget Dedicated to Coastal Flood Risk Management | 2019 - \$0 | 2022 budget - \$190,000 | \$90,000 from the 2022 New Initiatives Reserve \$100,000 from the 2022 Capital Reserve |
| 4.3.2 | Number of Organizations Engaged in Coastal Flood Risk Management | 2021 - 1 | TBD | This action is upcoming and KPIs will be confirmed once the action is initiated. |

Infrastructure

Infrastructure includes assets that provide many of the services needed and desired in a community. Managing both traditional and natural assets with a climate lens will ensure that investments will be functional throughout their lifespans. Choices in the design and operation of infrastructure affect GHG emissions produced within Port Moody's boundaries as well as outside and will be directly impacted by climate change. Port Moody has made progress on designing, maintaining and operating infrastructure that is low carbon and resilient such as using non-potable water for City irrigation, integrating climate change considerations into stormwater management practices and prioritizing natural infrastructure solutions. Staff anticipate that as many of the foundational actions from the CAP (e.g., low carbon resilient asset management and continue to incorporate climate change in stormwater management process and planning) are implemented that further resilience will be realized in future years.

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|----------|--------------|
| Actions 7.2.1 | Stormwater Climate Integration Incorporate climate change considerations into stormwater management process and planning. | Jan 01, 2020 | Dec 31, 2023 | On Track | Progress 10% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|--|-----------|--------------------------------|--|
| 7.2.1 | Adoption of the Updated Servicing Bylaw | 2020 – 0% | 2021 – underway | Enabling work is underway, due for completion in summer 2022. |
| 7.2.1 | Number of Integrated Stormwater Management Plans Completed | 2020 - 1 | 2021 – 1 completed, 2 underway | Two ISMPs for Area A (North Shore) and Area B (Inlet Centre) are underway. |
| 7.2.1 | Watershed Health (every 3 years) | TBD | TBD | Information unavailable this year. |

Emergency Response and Human Health

In 2021, we saw unprecedented climate impacts in BC. From a record-breaking wildfire season, heat dome extreme temperatures, atmospheric river rainfall and flooding, and extreme cold to close out the year, it is apparent that we are facing climate change impacts head on. Often community members are not all impacted to the same extent by climate change. Marginalized groups may be disproportionately impacted by climate change and have fewer resources to support preparedness and adaptation. Support and intervention needs to focus first on those most vulnerable to climate change impacts. Port Moody has made

progress on preparing people, services, and infrastructure for climate change such as continued emergency preparedness information, developing a Wildfire Protection Plan, and providing inclement shelters during times of extreme weather. Staff anticipate that as many of the foundational actions from the CAP (e.g. developing an Extreme Weather Response Plan) are implemented that further resilience will be realized in future years.

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|--|--------------|--------------|----------|--------------|
| Actions 5.1.1 | Emergency Preparedness Education Continue to inform and facilitate community education about preparedness across hazards, and build stronger connections with community associations and businesses with the aim of improved preparedness for extreme weather events. | Jan 31, 2022 | Mar 31, 2023 | Upcoming | Progress 0% |
| Actions 5.2.1 | Extreme Weather Response Plan Develop an Extreme Weather Response Plan with a focus on supporting the most vulnerable populations and identify and improve the capacity of multi-purpose areas within civic facilities and parks that could be converted to cooling, warming, and emergency support centres when needed. | May 28, 2021 | Oct 03, 2022 | On Track | Progress 10% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|--|--|----------|---|
| 5.1.1 | Number of People Reached through Outreach | TBD | TBD | No update as this is an Upcoming action for 2022. KPIs will be confirmed upon initiation. |
| 5.1.1 | Number of Organizations Partnering on Preparedness Information | 2020 - 5 | 2021 - 5 | Baseline based on organizations working with Fire Rescue on existing messaging. |
| 5.1.1 | Social Connectedness | 2014 • 4 or more people to confide in or turn to for help – 43% | TBD | Measured through Fraser Health My Health, My Community survey. No update available this year. |

| | | | | |
|-------|--|--|--|--|
| | | <ul style="list-style-type: none"> • Community belonging – 61% • Emergency preparedness – 23% | | |
| 5.2.1 | Public Cooling Opportunities | 2020 <ul style="list-style-type: none"> • # of public drinking water fountains- 9 • # of bottle filling stations - 0 • # of temporary misting stations used - 0 • # of water parks/splashpads – 3 water parks/ 2 water features • # of pop up water parks - 0 • # of pop up shaded heat relief areas – 0 | 2021 <ul style="list-style-type: none"> • # of public drinking water fountains - 10 • # of bottle filling stations - 2 • # of temporary misting stations used - 4 • # of water parks/splashpads - 3 water parks/ 2 water features • # of pop up water parks - 0 • # of pop up shaded heat relief areas – 2 | N/A |
| 5.2.1 | Number of Organizations Engaged in Developing the Plan | 2021 - 0 | TBD | Stakeholder engagement has not been initiated yet. |

Natural Environment

Ecosystems and natural areas can be both sinks and sources of GHG emissions and contribute towards reaching targets through carbon sequestration. However, estimates for land use carbon emissions and sequestration have a high degree of uncertainty today and so they are not reported on separately at this time. Work is underway to explore data in this field to potentially report specifically on this emissions sector in future years. Port Moody has made progress on protecting and enhancing the natural environment such as continuing to provide information to the community, developing an Urban Forest Management Strategy, and developing climate resilient landscaping strategies for public lands. Staff anticipate that as many of the foundational actions from the CAP (e.g., Urban Forest Management Strategy, Natural Asset Management Strategy) are implemented that further resilience will be realized in future years.

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|----------|--------------|
| Actions 8.1.1 | Implement Existing ESA Management Strategy Continue to implement capital and operational work designed to enhance the natural environment and align with the ESA Management Strategy (1999)(ESA Strategy update pending further direction). | Jan 01, 2021 | Dec 31, 2022 | On Track | Progress 40% |
| Actions 8.1.2 | Climate Resilient Landscaping on Public Lands Develop climate resilient landscaping strategies for public lands | Jan 01, 2021 | Dec 31, 2022 | On Track | Progress 35% |
| Actions 8.1.3 | Natural Environment and Biodiversity Awareness Continue to increase public awareness and engagement with environmental programs. | Jan 01, 2021 | Dec 31, 2022 | On Track | Progress 60% |
| Actions 8.1.4 | Erosion and Sediment Control Improvement Improve Standards for Erosion and Sediment Control for new developments and City projects. | Feb 01, 2021 | Dec 31, 2022 | On Track | Progress 30% |
| Actions 8.2.1 | Urban Forest Management Strategy Develop an urban forest management strategy | Nov 02, 2020 | Oct 15, 2022 | On Track | Progress 20% |
| Actions 8.2.2 | Natural Asset Management Plan Develop and implement a natural assets management plan with consideration of a carbon budget. Incorporate natural assets into the City's overall asset management plan. Natural assets are ecosystem features that provide, or could be restored to provide, services to the city but historically have not been considered on equal footing or included in asset management plans. | Jan 04, 2021 | Dec 31, 2022 | On Track | Progress 12% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|---|------------------------------------|-------------------------------------|--|
| 8.1.1 | Initiation of Projects that Protect, Restore and Connect ESAs | 2020 - 2 | 2021 - 2 | N/A |
| 8.1.1 | Area of Restoration Completed Annually | 2019 - 4,500 m2 | 2020 - 4,340 m2 | 2021 information will be available in mid-2022 and therefore was not included in this update. |
| 8.1.1 | Volunteer Hours Spent on Restoration Annually | 2020 - 170 hours | 2021 - 222 hours | N/A |
| 8.1.1 | Crew Days Spent on Restoration Annually | 2019: 1,622 hours = 203 person day | 2020: 2,385 hours = 298 person days | 2021 information will be available in mid-2022 and therefore was not included in this update. |
| 8.1.2 | Number of Landscaped Sites that are Reviewed and Enhanced through a Climate Resilient Lens | Baseline - 0 | 2021 – 1 | N/A |
| 8.1.2 | Develop Planting Pallets for Rain Gardens, Boulevards, Horticultural Beds, Vegetated Swales, and Street Horticulture. | Baseline – 0% | 2021 – 0% | Implementation of climate resilient landscaping strategies has not begun yet. |
| 8.1.2 | Number of Rain Gardens Installed Annually | 2019 - 4 | 2020 – 2 2021 - 4 | N/A |
| 8.1.3 | Number of People Reached through Social Media and Web Annually | 2020 - 3,407 | 2021 – 5,560 | N/A |
| 8.1.3 | Number of People Reached through Events Annually | 2020 - 315 | 2021 - 490 | Impacted by Covid-19 event restrictions in 2020 and 2021. |
| 8.1.4 | Number of Recommendations Implemented from the Updated Standards | 2020 - 0 | TBD | Standards have not been developed yet. |
| 8.2.1 | Percent of Canopy Cover Annually | 1999 – 61.8% | 2018 - 55.6% | N/A |
| 8.2.1 | Number of Trees Removed Annually | 2020- 130 | 2021 – 103 | Includes hazard tree removal, project tree removal and hazard tree permits. Does not include wildfire fuel treatment areas CWPP. |
| 8.2.1 | Number of Trees Planted Annually | 2020 - 487 | TBD | 2021 trees planted statistics will be available in mid-2022. |
| 8.2.1 | Number of Urban Forest Management Recommendations Implemented | 2020 – 0 | TBD | Urban Forest Management Strategy is under development and recommendations are not finalized. |
| 8.2.2 | Development of a Natural Asset Policy | 2020 – 0% | 2021 – 0% | Enabling work is underway. |
| 8.2.2 | Development of a Natural Asset Inventory | 2020 – 0% | 2021 – 0% | Enabling work is underway. |

Organization Wide

Building a climate resilient and carbon neutral community requires unified actions that span all City processes. Climate change planning will not be successful if done in isolation, and therefore, requires embedded principles in all departments, projects, initiatives, plans, and policies. Port Moody has made progress on embedding low carbon resilience in City processes such as integrating climate alignment into the budgeting process, adhering to sustainable purchasing principles, and implementing the sustainable events policy. Staff anticipate that as many of the foundational actions from the CAP (e.g., low carbon resilience policy) are implemented that further resilience and GHG reductions will be realized in future years.

| Number | Description | Start Date | End Date | Status | Progress |
|---------------|---|--------------|--------------|-----------|---------------|
| Actions 6.1.1 | Integrate Climate Budgets Integrate climate budgets in the municipal budget process. | Apr 01, 2021 | Dec 31, 2022 | Completed | Progress 100% |
| Actions 6.1.2 | Low Carbon Resilience Policy Develop policy and procedures to embed climate mitigation and adaptation considerations throughout day-to-day City business. | Jul 05, 2021 | Dec 31, 2022 | On Track | Progress 4% |

Progress of Key Performance Indicators

| Linked Action | KPI Description | Baseline | Update | Notes |
|---------------|---|----------|----------|---|
| 6.1.1 | Number of Climate Action Flags on New Capital budgets | 2020 – 0 | 2021 - 0 | Implemented as part of 2022 capital plan. |
| 6.1.1 | Number of new funding requirements that are climate action plan related | 2020 - 0 | 2021 - 8 | N/A |
| 6.1.2 | Number of new city policies, bylaws, plans, strategies etc. developed that include an LCR Lens. | N/A | 2021 - 0 | N/A |

Next Steps

Staff will continue to track and monitor implementation of climate actions, trends of key performance indicators, and progress towards achieving climate goals and targets regularly. This information along with other updates and information will continue to be made available each year. Key information from this annual update will be shared through the City's dedicated climate action web page. Near the end of 2022 staff will present a Phase Two Climate Action Implementation Strategy that will outline climate actions to implement between 2023 and 2025.