



City of Port Moody

Report/Recommendation to Council

Date: July 4, 2022
Submitted by: Community Development Department – Policy Planning Division
Subject: Draft Climate Ready Homes and Buildings Plan

Purpose

To present the draft Climate Ready Homes and Buildings Plan for Council adoption.

Recommended Resolution(s)

THAT Council adopt the Climate Ready Homes and Buildings Plan as recommended in the report dated July 4, 2022 from the Community Development Department – Policy Planning Division regarding Draft Climate Ready Homes and Buildings Plan.

Executive Summary

Across BC and the globe municipalities are taking a lead role to reduce the impacts of climate change in their communities through energy management, GHG reduction targets, and preparing for future climate change impacts. In June 2019, the City of Port Moody joined many other local governments in declaring a climate emergency, bringing to light the need to take accelerated action on climate change. On July 21, 2020, City Council adopted the Climate Action Plan¹ (CAP), an integrated strategy outlining how the City and the community will reduce greenhouse gas (GHG) emissions and prepare for future climate changes. Through implementation of the CAP, staff have been working to develop a Climate Ready Homes and Buildings Plan that will further the community's progress towards buildings that are low emissions and resilient to climate change. Since buildings are the second largest emissions source in the community, by addressing these emissions, Port Moody is ensuring a better future for the community and the world.

The purpose of this report is to:

- summarize public and stakeholder engagement that helped shape the Plan; and
- present the draft Climate Ready Homes and Buildings Plan for Council adoption.

¹¹ 2020 Climate Action Plan: <https://www.portmoody.ca/en/city-hall/climate-action-plan.aspx>

Background

At the July 21, 2020 Special Council meeting, Council passed the following motion:

CW20/065

THAT Council adopt the Climate Action Plan as recommended in the report dated June 22, 2020 from the Planning and Development Department – Policy Planning Division regarding Climate Action Plan; AND THAT staff be directed to report back with a Two-Year Funding and Implementation Strategy for priority actions

At the February 2, 2021 Committee of the Whole Meeting, Council passed the following resolution:

CW21/014

THAT the Phase One Climate Action Implementation Strategy be endorsed as recommended in the report dated December 2, 2020 from the Community Development Department – Policy Planning Division regarding Phase One Climate Action Implementation Strategy;

AND THAT action items and positions identified in the Phase One Climate Action Implementation Strategy without approved funding be referred to a future Finance Committee.

Developing a Climate Ready Homes and Buildings Plan is one of the 23 actions being implemented as a part of the Phase One Climate Action Implementation Strategy². Funding for the Climate Ready Homes and Buildings Plan was approved as part of the 2021 Capital Plan and funded from the Carbon Offset Reserve.

Discussion

On July 21, 2020, City Council adopted the Climate Action Plan, an integrated strategy outlining how the City and the community will reduce GHG emissions and prepare for future climate changes. Since adoption of the Phase One Climate Action Implementation Strategy in February 2021, staff have been working to initiate implementation of 23 out of 54 actions in the Climate Action Plan before the end of 2022. One of the 23 actions is to develop a Climate Ready Homes and Buildings Plan that outlines actions the City can take to make homes and buildings in Port Moody climate ready. A climate ready home or building is one that has been designed or modified to:

- meet low carbon and high energy-efficiency standards; and
- manage many of the risks that are linked to climate change such as heat-related illness, poor indoor air quality, and damage from flooding or windstorms.

² Phase One Climate Action Implementation Strategy:

<https://www.portmoody.ca/common/Services/eDocs.ashx?docnumber=562101>

As committed to in the CAP, staff are continuing to use a low carbon resilience (LCR) framework throughout implementation. Under LCR, the Plan outlines actions in buildings that address both climate mitigation (GHG reductions) and adaptation (adapting to impacts of climate change).

After a one-year comprehensive development process, staff are pleased to present the draft Climate Ready Homes and Buildings Plan for Council adoption (**Attachment 1**).

Climate Ready Homes and Buildings Engagement

Throughout the Plan's development, staff received input from the community and stakeholders and used this information to inform actions in the Climate Ready Homes and Buildings Plan. Community feedback was collected through two online surveys, one for residents and one for businesses. The surveys were promoted online, and staff attended the Christmas Craft Fair and Winter Farmers Market to provide physical copies of the survey, offer information about the Climate Ready Homes and Buildings Plan, and answer questions from the community. In addition, staff hosted a virtual stakeholder workshop with industry representatives to receive feedback on the Plan's approach and draft actions. An account of engagement and feedback can be found in Appendices E and F of Attachment 1.

Achieving Climate Ready Homes and Buildings

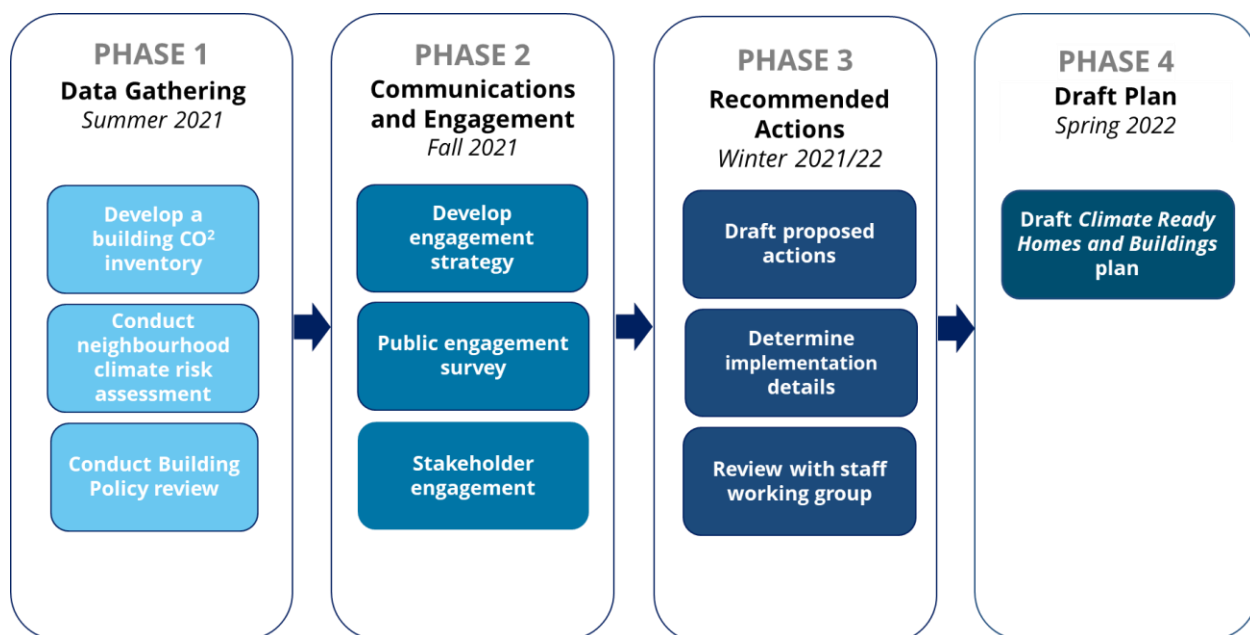
Climate action has been a longstanding priority in Port Moody. The Climate Ready Homes and Buildings Plan includes actions that outline one path to climate ready structures in Port Moody based on current authority, information, and best practices. The City of Port Moody is committed to achieving its vision of a low carbon and resilient community through sustained implementation of these actions.

Developing the Plan

As buildings make up a significant portion of community wide GHG emissions (45% in 2018³), it is imperative to address emissions from buildings to have a chance at achieving climate action targets. To develop the Plan, staff worked with consultants to undertake the following four-phase process:

³ Climate Action Plan Implementation 2021 Annual Report – Phase One:

[https://www.portmoody.ca/en/recreation-parks-and-environment/resources/Documents/Climate%20Action/Climate Action Plan Implementation 2021 Annual Report - Phase One.pdf](https://www.portmoody.ca/en/recreation-parks-and-environment/resources/Documents/Climate%20Action/Climate%20Action%20Plan%20Implementation%202021%20Annual%20Report%20-%20Phase%20One.pdf)



The initial phase focused on research, developing emissions inventories, and undertaking a neighbourhood climate risk and vulnerability analysis. Throughout the engagement process in the second phase, three key priorities emerged that informed and guided the development of the actions contained in the Plan:

- prioritize high-impact policy actions to meet the urgency of the challenge;
- integrate climate mitigation, resilience, and equity objectives; and
- align actions with other jurisdictions and create partnerships to reduce complexity for industry and building owners.

Phase three used all the information from phases one and two to develop a suite of draft actions to consider as a part of the plan. These actions were refined through feedback from stakeholders and several iterations of staff review and matched with implementation details. After the list of actions was finalized, information from all phases was compiled into the draft plan for consideration.

Action on GHG Emissions

To understand the impacts of the proposed actions, along with relevant supporting Provincial policies, the consultants provided staff with a model of operational and embodied GHG emissions for the building sector in Port Moody from 2019-2050. Implementing the actions outlined in the Plan is expected to put the City on a trajectory to a net-zero emissions building stock by 2050, resulting in a 96% decrease in annual operational emissions by 2050, relative to both 2018 and the business-as-usual scenario. By 2030, the modelled actions will result in an estimated 33.5% reduction from baseline, and 46% reduction from the business-as-usual scenario.

Due to currently limited authority of local governments to impose requirements on new and existing buildings, and the planned implementation of regulations occurring in the late 2020's, operational emissions reductions may fall short of the 2030 Climate Action Plan buildings-related targets, however, the City is committed to utilizing all measures available to require and/or encourage climate ready buildings. With restraints in what

the City can do related to buildings, achieving targets shifts to rely more in the short-term on residents and businesses taking action and other levels of government ramping up efforts to transition to climate ready homes and buildings. Success requires collective action and ownership throughout the community and province.

The embodied emissions actions are estimated to reduce embodied emissions in construction and renovation by 27% annually. This is shy of the 40% reduction target by 2030 in the Plan, due to local governments' limited authority to regulate embodied emissions in new construction. Port Moody will enhance embodied emissions reductions to achieve the remaining 10% through the completion of several actions that will explore additional policy levers for Port Moody to regulate, encourage, and incentivize embodied emissions reductions (Attachment 1, actions 1.4 and 1.6, pg. 24-25).

Staff recognize that climate action is a dynamic and evolving space where policies and initiatives need to be flexible and adapt quickly to be the most successful. As a part of this work, the Climate Ready Homes and Buildings Plan consultants have provided staff with a policy modelling tool that allows the City to understand the GHG implications of altering policy (e.g. starting one year earlier, or scaling to more building archetypes). This will allow staff to continue developing meaningful action to reduce GHGs from buildings as the industry and market shifts.

Action on Climate Resilience and Equity

While global climate action has largely been focused on reducing emissions to prevent further and increasingly damaging impacts, the already changing climate cannot be ignored. There is a need to equally prioritize adapting to the quickly changing climate at the same time as swiftly and effectively cutting emissions. To do this, staff will continue to use the low carbon resilience framework when implementing actions to ensure that Port Moody identifies where these priorities and opportunities overlap.

Addressing climate resilience and equity also provides other benefits including increased jobs, economic stimulus, and improved ecosystem services. This work can also contribute to multiple goals of the Council Strategic Plan, the Official Community Plan, and other strategic plans and deliver many benefits to the community, both short-term and long-term. By undertaking proactive planning for climate change, opportunities and benefits can be harnessed in the face of drastic change wherever possible.

Temperatures in Metro Vancouver are warming, and weather patterns are shifting due to climate change. Port Moody's ability to adapt to climate change requires an understanding of local impacts, seasonal variation, and new climate extremes. The climate risk assessment identified high-level climate vulnerability of different neighbourhoods. These high-level results are intended to help prioritize the next steps, including neighbourhood-level engagement, follow-up assessments, and targeted policy action. The top three hazards to buildings in Port Moody include:

1. poor air quality;
2. landslides;
3. extreme heat (tied for third); and

4. wildfire (tied for third)

Climate change disproportionately impacts lower-income, socially marginalized populations, and those with existing health conditions. Those with less financial resources may have fewer options to protect themselves when major weather events occur and may have more difficulty recovering from impacts. Fairness, equity, and affordability will be central considerations in the implementation of the Climate Ready Homes and Buildings Plan. While several actions explicitly target equity, others will need to incorporate equity through program design and implementation. Using insights from the climate risk assessment, further engagement, and layering on data will help staff to understand where to focus resources to support these neighbourhoods, get a sense of who may be affected, and alter and create solutions to better address inequities.

Implementation

The City's Policy Planning Division will lead implementation of the Climate Ready Homes and Buildings Plan, in collaboration with the staff climate action working group. The staff working group will continue to meet quarterly and will guide implementation of the Plan. Ongoing monitoring and evaluation of actions being implemented will be integrated into the Climate Action Plan Implementation process, which is designed to track progress in meeting GHG emission reduction and resilience goals and targets, and to flag when actions may be redundant or require changes. Staff will review the status of the Plan's implementation and present updates through the annual Climate Action Implementation Report. The annual update is a concise summary that:

- provides a snapshot of progress on the goals of the Climate Ready Homes and Buildings Plan;
- identifies areas for improvement or future work/study;
- renews and revises financial and resourcing needs as required; and
- demonstrates overall progress on implementation of the Plan's actions.

Implementation of the Climate Ready Homes and Buildings Plan will be iterative and continuously reviewed. The City will review the Plan's goals, targets, and actions during an update of the Climate Action Plan, planned for 2025.

Staff are committed to staying up to date on the latest information and initiatives and to continue to be involved in province-wide peer engagement and collaboration, advocacy, and developing best practices. The draft Climate Ready Homes and Buildings Plan represents a key step in achieving the Climate Action Plan goals and targets. The actions in the Plan reflect Port Moody's jurisdiction, role and the range of building specific climate challenges and initiatives. A total of 44 actions have been identified in the plan that will both reduce GHG emissions and prepare homes and buildings for future climate scenarios.

Like the Climate Action Plan, the Climate Ready Homes and Buildings Plan demonstrates that there is a lot of work to do in upcoming years, and that continued bold efforts will be necessary to achieve emissions reduction targets and increase resilience. It is important to note that municipal actions are essential but are insufficient on their own to meet the climate challenge, as demonstrated through the Plan's modelling. Achieving community climate goals and the modelled pathway outlined in the draft plan, will require large scale transformation and

commitment from everyone, including residents, businesses, regional governments, and senior levels of government.

Other Option(s)

THAT staff be directed to report back with revisions to the Climate Ready Homes and Buildings Plan as specified by Council.

Financial Implications

The level of action outlined in the Climate Ready Homes and Buildings Plan will require significant dedication of resources including capital and operational costs, existing staff time, creation of new positions, and consultant assistance. Without dedication of these resources, the implications are that:

- actions outlined and committed to in the Climate Ready Homes and Buildings Plan, Climate Action Plan and Climate Emergency Declaration may be delayed or abandoned;
- Port Moody may not be on track to meet its 2030 and 2050 climate targets; and
- climate change impacts may not be adequately addressed, potentially resulting in greater damage to homes and buildings, threat to human health and safety, increased costs of repair and recovery, and other impacts.

Pending adoption of the draft Climate Ready Homes and Buildings Plan, funding for the Plan will be phased in over time. Staff will present a Phase Two Climate Action Implementation Strategy detailing how immediate and short-term actions from this Plan will be integrated into the Climate Action Plan implementation process. The Strategy will identify which actions have been recommended for implementation between 2023 and 2024, as well as related resourcing needs, funding opportunities, lead departments, and action monitoring details.

Communications and Civic Engagement Initiatives

If the draft Climate Ready Homes and Buildings Plan is adopted by Council, staff will prepare an announcement and post the Plan to the City website. The Climate Ready Homes and Buildings Plan includes ongoing monitoring of progress on actions and tracking towards achieving emission reduction and resilience goals. These results will be integrated into the climate action plan implementation updates, presented to Council annually and communicated via the City's website and social media channels.

Council Strategic Plan Objectives

Implementation of the Climate Action Plan was ranked as a Level 1 priority in the Council Strategic Plan and is considered a “must do” by Council. Development of a Climate Ready Homes and Buildings Plan was also ranked as a Level 1 priority under the Council Strategic Plan. The funding of actions and staff capacity under the Climate Action Plan and Climate Ready Homes and Buildings Plan impacts the ability to deliver on the 2019-2022 Council Strategic Plan actions to: reduce the City's impact on the planet, broaden the City's sustainability programs, respond and adapt the climate change through planning and policy development, and address global climate change with local actions through delaying progress on implementing and achieving the Climate Action Plan.

Attachment(s)

1. Draft Climate Ready Homes and Buildings Plan

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Report Approval Details

Document Title:	Draft Climate Ready Homes and Buildings Plan.docx
Attachments:	- Attachment 1 - Draft Climate Ready Homes and Buildings Plan.pdf
Final Approval Date:	Jul 19, 2022

This report and all of its attachments were approved and signed as outlined below:

Mary De Paoli, Manager of Policy Planning - Jul 8, 2022 - 7:01 PM

Kate Zanon, General Manager of Community Development - Jul 11, 2022 - 6:17 AM

Lindsay Todd for Rosemary Lodge, Manager of Communications and Engagement -
Jul 11, 2022 - 2:36 PM

Paul Rockwood, General Manager of Finance and Technology - Jul 12, 2022 - 7:06 PM

Tim Savoie, City Manager - Jul 19, 2022 - 10:35 AM