Phase Two Climate Action Implementation Strategy

Photo by Bruce Caird

2020 Climate Action Plan Implementation for 2023 & 2024

Community Development - Policy Planning

City of Port Moody

Prepared December 2022

PORT MOODY
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Introduction

On July 21, 2020 Port Moody Council adopted the Climate Action Plan (CAP), an integrated plan that outlines a strategy for how the City and Community will reduce greenhouse gas (GHG) emissions and prepare for future climate changes. The Climate Action Plan 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, 2019*

Climate action implementation is completed through a phased approach determined by years of action initiation. These phases are intended to mobilize bold climate action before 2030, with implementation continuing until all actions in the 2020 Climate Action Plan and subsequent climate related plans are executed. The phases are indicated by time horizons of approximately two or three years and are consistent with the municipal budgeting process, staff work planning, funding opportunities and new information that may inform decision-making and action updates. Action initiation is heavy in earlier phases to maximize the possibility of realizing emissions reductions and increasing resiliency before 2030, remaining consistent with the latest climate science. Changes to the phases are anticipated as implementation progresses, and new information informs the process. The implementation phases are as follows:

Climate Action Plan Implementation Phases

2020	Council adopts Climate Action Plan (CAP)	Staff prepare and implement an Implementation Strategy
2021 – 2022	Phase 1	23 Actions initiated 5 completed, 18 in progress Overall 59% complete
2023 – 2024	Phase 2	Project proposals: - Description - Timelines - Funding - Impact
2025	Climate Action Plan Renewal	Work with consultant to update CAP
2026 – 2028	Phase 4	TBD
2029 – 2030	Phase 5	TBD

Following adoption of the CAP, staff prepared and implemented the Phase One Climate Action Implementation Strategy. Staff are now preparing for Phase 2. The Implementation Framework (see Figure 1) ensures that the vision remains the guiding principle for taking action and that the goals and targets are aligned and effective.

Figure 1: Implementation Framework

Overlaid on the framework are guiding principles representing values that underpin the vision defined in the Plan, seeking to ensure that they are integrated with, and enhance, other community priorities.

These guiding principles were developed from the values expressed during development of the Climate Action Plan, Extreme Weather Resilience Plan, and Climate Ready Homes and Buildings, and from the community and other stakeholders. The guiding principles will be discussed at the outset of initiating each phase and revisited throughout implementation. The guiding principles are to:

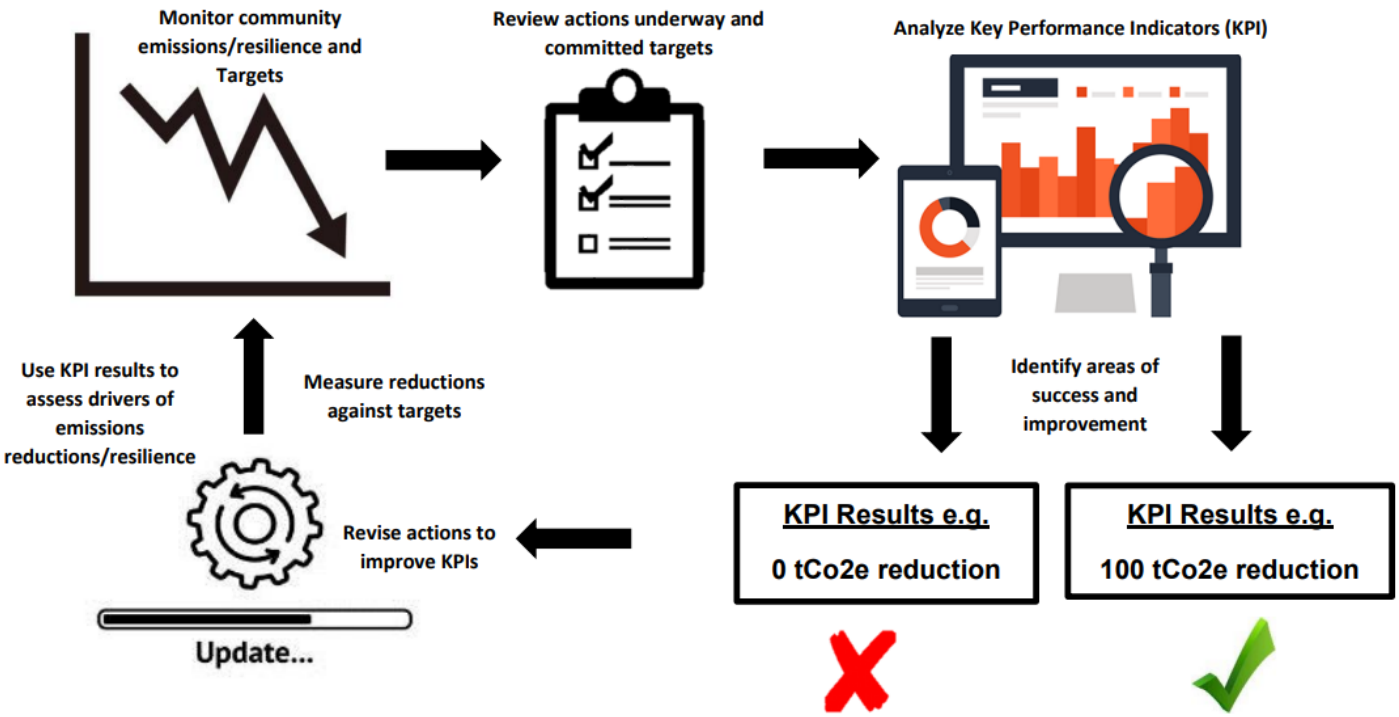
- Embed equity considerations at all steps of action implementation to understand and dismantle barriers for those disproportionately impacted by climate change and/or by the actions in the Climate Action Plan, Climate Ready Homes and Buildings Plan, Extreme Weather Resilience Plan, and other strategic plans;
- Apply a low carbon resilience lens (climate mitigation and adaptation) to streamline priorities, resources, and harmonize co- benefits;
- Demonstrate proactive climate leadership as a municipality and enable leaders in the community;
- Actively engage through meaningful collaboration, partnerships and communication; and
- Remain accountable by providing transparent information, continuing to measure and report out on information, and making adjustments where needed.

Achieving Climate Goals and Targets

The carbon neutral scenario presented in the 2020 Climate Action Plan is modelled based on policy direction in Port Moody and in other levels of government. This means that the scenario relies on these policy directions becoming a reality and depends on monitoring to confirm success. It is currently difficult and unreliable to model emissions reductions from each individual action in Port Moody that will contribute to this scenario as this would require detailed information currently not available to the City, many assumptions, and would require constant updating to remain relevant. Rather, sector level GHG reduction targets have been established and actions were laid out in several strategic plans that enable and are anticipated to result in reductions to meet targets.

Changes in GHG emissions and climate resilience will continue to be monitored at the community level by updating the community energy and emissions inventory when new data becomes available (annually for buildings and solid waste), monitoring changes in GHG emissions over time, and gathering data to better understand community resilience to climate change impacts. Changes in data over time will be compared against the targets in climate related plans and key performance indicators (KPI) of the actions underway to determine areas of success and inform adjustments. This approach will provide a clear and measurable picture of how climate action goals and targets are being achieved. Figure 2 illustrates this process.

Figure 2: Continued Monitoring Progress



Some phase two actions include well-defined strategies and are underway, while for others the City must first gain a fuller understanding of the related barriers and opportunities to determine how best to proceed. In all cases, KPI's have been established for each action. The KPI's will provide an indication of whether the action is on the right track to achieving its intended outcome and if adjustments are needed. The table below outlines the sector level targets that staff will continually measure against using the community emissions inventory, additional available data, and KPIs to determine if Port Moody is on track to achieving the climate vision. This information is reported on through annual climate action implementation reports.

Sector / Focus Area	Targets	Origin Plan
Buildings	• By 2030, all new and replacement heating and hot water systems are zero emissions • By 2030, all oil and propane heating and hot water systems are replaced with zero emission systems • By 2050, all buildings have replaced heating and hot water with zero emission systems	2020 Climate Action Plan
	• By 2030, reduce the carbon content of new buildings and construction projects by 40% (compared to 2018) • By 2030, achieve an 80% reduction in operational emissions (civic facilities)	2022 Climate Ready Homes and Buildings Plan
Transportation and Mobility	• Residents walk, cycle, or take transit for 40% of trips by 2030 (up from 17% in 2017) • 40% of passenger vehicles, and 25% of commercial vehicles are electric by 2030	2020 Climate Action Plan
Waste Reduction and Management	• Minimize waste going to landfill and achieve zero emissions from waste before 2050	2020 Climate Action Plan

The scope of the targets and goals address emissions from both the community at large and City operations. While GHG inventories exist to inform mitigation targets, records of data to support resilience focused measurement are not yet well understood.

Measuring the success of climate resilience focused actions is best represented through the goals outlined in the Climate Action Plan and Extreme Weather Resilience Plan. As action KPIs and external data help provide greater clarity on resilience indicators, such as human vulnerability to extreme heat, this information will be used to inform resilience focused targets in future updates to climate related plans. Staff will continue to stay informed on new research surrounding the development of consistent and measurable resilience metrics and data, such as research from health authorities, education institutions, and different levels of governments.

Phase Two Action Identification Process

Through summer to fall of 2022, the staff climate action working group met several times to review information and compile key actions from the 2020 Climate Action Plan, 2022 Climate Ready Homes and Buildings Plan, and 2022 Extreme Weather Resilience Plan for the years of 2023 and 2024. Many of the actions that emerged in phase two are actions coming out of new plans developed in phase one, and those remaining to be initiated from the Climate Action Plan. This process involved identifying actions that emerged by performing climate action backcasting, where the vision, goals, and targets of plans were used to

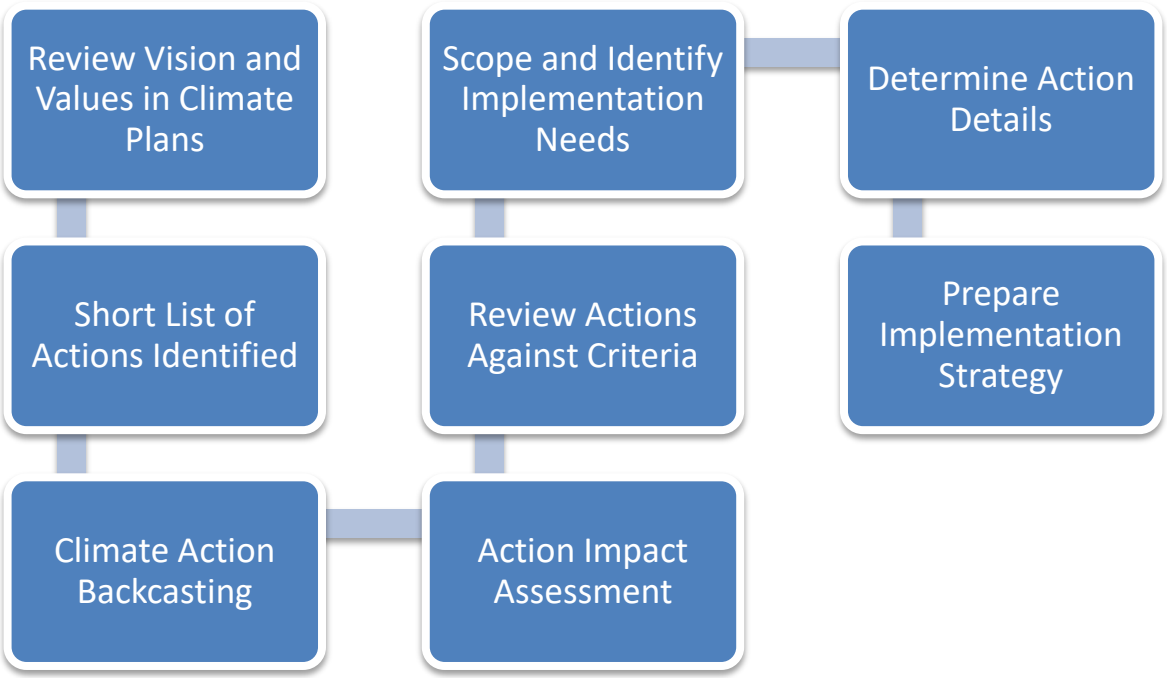
understand critical milestones for action implementation. Next, actions were reviewed against the criteria listed below. From there, staff provided information on scope, resourcing, costs, key performance indicators and other details to better understand how the actions will be implemented. Actions were evaluated against the following criteria:

Phase Two Climate Action Criteria

- The urgency to be initiated to realize benefits and meet targets, goals and commitments in the Climate Action Plan, Climate Ready Homes and Buildings Plan, and Extreme Weather Resilience Plan and other City strategic plans;
- The potential to result in a high level of impact on reducing greenhouse gas (GHG) emissions and increasing climate resilience;
- The opportunity to access internal and external resources and funding to carry out the action(s); and
- The ability to integrate well with existing departmental work plans, priorities, and alignment with Council and community goals captured in the Climate Action Plan.

To complete this work the staff climate action working group used online collaboration software to organize actions in multiple sessions. The following process took place:

Figure 4: High Level Phase Two Action Identification Process



1. Policy Planning staff identified a preliminary list of actions based on City and community values and priorities identified in the 2020 Climate Action Plan, 2022 Climate Ready Homes and Buildings Plan, and 2022 Extreme Weather Resilience Plan that formed the basis of phase two actions.
2. The staff climate action working group gathered for a workshop that involved:
    a. Reviewing commitments in climate related plans, community priorities expressed through public engagement and overlapping priorities in other City strategic plans;
    b. Performing climate action backcasting;
    c. Discussing the preliminary list of actions including adding or removing actions based on the criteria; and
    d. Carrying out an action impact assessment to determine the potential level of impact of each action on reducing GHG emissions and/or preparing for future climate changes in addition to the level of effort to undertake the action.
3. The staff climate action working group gathered for the second workshop that involved:
    a. Summarizing the first session outcomes;
    b. Compiling a list of phase two actions based on staff climate action working group input and first session outcomes;
    c. Another review of the list of phase two actions against the criteria; and
    d. Identifying timelines to initiate actions based on work plans and available resources.
4. The third staff climate action working group session involved meeting with divisions responsible for implementing phase two actions selected. During this time, responsible division staff provided information on scope, estimated budgets, resourcing, and identified draft key performance indicators required to implement the actions.
5. Staff synthesized this information into the Phase Two Climate Action Implementation Strategy.

The process above resulted in identifying 45 phase two actions. The table below outlines a summary of these actions being initiated and their climate-related origin plan. Thirty two actions will be initiated in 2023 and fourteen will be initiated in 2024.

Origin Plan	Total No. of Actions	No. of Actions Initiated
2020 Climate Action Plan	54	Phase one – 23 (5 complete) Phase two - 16
2022 Climate Ready Homes and Buildings Plan	44	Phase two - 20
2022 Extreme Weather Resilience Plan	27	Phase two – 9
Total		**Phase one – 23** **Phase two - 45**

These actions represent the values and priorities of various groups expressed throughout the City's climate action journey including:

Group	Aligned Priorities Gathered From
Council	Climate Action Plan Climate Emergency Declaration Council Strategic Plan Other City Strategic Plans (e.g. Master Transportation Plan, Parks and Recreation Master Plan etc.)
Climate Action Committee	Monthly meetings where climate action priorities and values are discussed Climate Action Plan development engagement process
Community / Stakeholders	Climate Action Plan Climate Action Plan development engagement process Climate Ready Homes and Buildings Plan development engagement process Extreme Weather Resilience Plan development engagement process

Through phase one implementation, several new and updated plans are being developed, including:

- Master Transportation Plan update;
- Urban Forest Management Strategy;
- Natural Asset Management Strategy; and
- Coastal Flood Management Strategy.

At the time of writing this strategy the completion of these plans is pending, therefore, actions and recommendations from these plans are not yet included in an implementation strategy. Plans that will be completed in the coming years will be integrated into future implementation years and phases as appropriate.

Acknowledging the dire need to cut global GHG emissions in half by 2030 to maintain global temperature increase to 1.5°C this century, the phase two actions align by concentrating on the urgency communicated through the latest climate science, community priorities, and Council commitments. The carbon neutral scenario modelled in the 2020 Climate Action Plan represents the bold actions adopted in the Climate Emergency Declaration, Climate Ready Homes and Buildings Plan, Extreme Weather Resilience Plan, and other policy commitments necessary to achieve deep emissions reductions and build community resilience. Although the carbon neutral scenario presents a pathway to zero based on what we know today, the reality is the pathway to zero is not linear. Technology disruption, changing political and regulatory landscapes, shifting community and City values, and action implementation will present significant challenges that are not represented in this scenario. Therefore, Port Moody must commit to flexibility and being adaptive in undertaking climate action. Staff have built processes into climate action implementation that will implant this necessary level of flexibility.

Annual Reporting

Each year, staff will revisit the scope and status of their responsible actions to determine next steps to complete the action(s). This provides an ideal opportunity to integrate action needs into the municipal budgeting process and allows sufficient time to plan for the upcoming year. Once a year, staff will provide an

update to Council on climate action implementation that will include a review of the year prior and any new information and expectations for the upcoming year. Information in the annual update will include:

- Status of implementation of the current and previous phase actions;
- Progress of key performance indicators and update on progress towards achieving climate action goals and targets;
- Anticipated completion dates for the current phase actions; and
- Additional information as available.

Key information from the annual reporting will be communicated to the public through the City's web site. As the phase two actions are initiated by the lead divisions, appropriate communication strategies, feasibility studies and other strategies will be developed if required for the action.

During the final year of each implementation phase, staff will undertake a process to pull together actions for the next phase of implementation and bring forward an implementation strategy for Council consideration for the upcoming implementation phase.

Ongoing Management of Implementation

Monitoring of implementation is crucial in determining the success of actions and measuring progress towards meeting climate action commitments. Tracking progress will be carried out largely by the staff climate action working group. This group will develop and lead monitoring and evaluation programs to help ensure that the climate actions are implemented and are achieving results as intended. Ongoing monitoring and evaluation will serve two important purposes. First, it will help keep track of where the community is with respect to its emission reduction and resilience goals. Second, it will help track implementation progress and flag when actions may be redundant or require changes.

Climate action implementation will be monitored using Envisio project management software. Lead divisions responsible for implementing priority actions will provide monthly and/or annual updates to the sustainability staff. Staff have also established key performance indicators that will be integrated into Envisio and tracked annually. At the end of each year as a part of the annual reporting, staff will summarize the previous year climate action implementation and present to Council for their information.

Council Strategic Plan Integration

Climate action priorities aligned well with the 2019-2022 Council Strategic Plan, resulting in many Phase One Climate Action Implementation actions being integrated into the current Council Strategic Plan tracking and reporting process. With the current Council Strategic Plan reaching maturity at the end of 2022, select Phase Two climate actions will be recommended for integration with the new Council Strategic Plan as appropriate.

Climate Action Plan Renewal

Port Moody is committed to a Climate Action Plan renewal initiated in the fifth year of implementation. Since the Plan's actions focus action before 2030 and society is rapidly shifting to enable swift action, it is important to review the Plan at the critical five-year junction when most actions are approaching maturity. During phase 3 of implementation, staff will shift focus to refreshing the Climate Action Plan with the goals of:

- Demonstrating achievement/progress towards the Plan's goals;

- Incorporating any new climate science and projections available;
- Re-assessing climate risks and vulnerabilities;
- Updating financial considerations for actions identified;
- Evaluating greenhouse gas reductions;
- Aligning with other important policy and guidance documents at the City;
- Informing the next segment of implementation phases; and
- Encompassing ideas and work from partners and the community.

After the Plan renewal is complete and any updates are integrated into the Climate Action Plan, regular implementation phases will proceed. Implementation of actions already initiated prior to the renewal will continue during the renewal period.

Climate Action Committee Role

Port Moody's Climate Action Committee is a civic committee composed of members of Council, the community, and members of other civic committees with a diverse set of skills and a common interest in acting on climate change. The 2020 Climate Action Plan is a community plan that was initiated by the Climate Action Committee and has seen active participation by the Committee throughout its development, including developing the vision for the Plan and evaluating draft actions for inclusion in the Plan.

Staff will continue to work with the Climate Action Committee and report back to the Committee quarterly with implementation updates for phase one and two actions. Updates will include key information on status of implementation, key tasks, and tracking progress.

Staff envision that the Climate Action Committee's role throughout implementation will be to:

- continue communication around each phases climate action areas beyond City communication channels;
- participate in the planning and execution of climate action events;
- provide advice and recommendations on ways in which Port Moody can achieve carbon neutrality in corporate operations and community energy and emission programs and increase resilience for residents and businesses;
- provide leadership in the community by exemplifying climate action in members' daily lives where possible; and
- Other roles as identified by the Committee.

The Committee's role and contributions will be discussed during the Committee's annual work planning sessions.

Summary of Phase Two Action Details

Action Summary by Climate Action Focus Area

Buildings			Funding Requested
1.	Accelerate Adoption of the BC Energy Step Code	Community Development Policy Planning	Yes
2.	Develop and Implement a Concierge Retrofit Program for Large and Small Buildings – Phase 1 & 2	Community Development Policy Planning	Yes
3.	Revise the Demolition Permit to Increase Recycling and Deconstruction Requirements	Community Development Policy Planning	No
4.	Embodied Emissions in New Construction Research and Options	Community Development Policy Planning	Yes
5.	Identify Oil and Propane Heated Buildings	Community Development Policy Planning	Yes
6.	Implement Permit Streamlining for Low Carbon Buildings	Community Development Policy Planning	No
7.	Mandatory Building Energy Benchmarking and Disclosure Requirement for Part 3 Buildings	Community Development Policy Planning	No TBD for future phases
8.	Pilot Low Carbon Resilience Audits in Civic Facilities	Community Development Policy Planning	No
9.	Provide Top-Ups for Existing Incentive Programs	Community Development Policy Planning	Yes
10.	Update Bylaw Barriers for Low Carbon New Buildings and Retrofits	Community Development Policy Planning	No
11.	Develop a Thermal Conditioning Permit	Community Development Building, Bylaws and Licensing	Yes

12.	Create a Zero Emissions Municipal Building Policy	Community Development Policy Planning	No
13.	Embodied Emissions Disclosure at Time of Permit	Community Development Policy Planning	Yes
14.	Encourage Voluntary Disclosure for Carbon and Risk of Part 3 Buildings	Community Development Policy Planning	Yes
15.	Benchmark and Disclose Civic Facility Energy Use and Emissions Annually	Community Development Policy Planning	No TBD for future phases
Transportation and Mobility			
16.	Develop Business License Requirements that Support Low-Emission Ride-Hailing Services and Autonomous Vehicles	Community Development Building, Bylaws and Licensing	No
17.	Revise Parking Minimums and Create Parking Maximums	Engineering and Operations Infrastructure Engineering Services	Yes
18.	Advocate for Significant Policy Changes that Reduce Emissions from Transportation	Engineering and Operations Infrastructure Engineering Services	No
19.	Create Public Education Campaigns to Increase Awareness of Zero-Emission Vehicle Options	Community Development Policy Planning	Yes
20.	Explore Creating Pedestrian Priority Zones in Key Areas	Engineering and Operations Infrastructure Engineering Services	Yes
Waste Reduction and Management			
21.	Develop a Zero-Waste Strategy for City Facilities and City Events	Community Services	Yes
22.	Develop a Community and Commercial Focused Zero Waste Strategy	Engineering and Operations Solid Waste, Fleet & Shared Services	Yes
23.	Work with Partner Organizations on Public Education Campaigns to Increase Awareness of Waste Reduction Tools, Programs, and Information	Engineering and Operations Solid Waste, Fleet & Shared Services	No

Land Use and Growth Management			
24.	Review and Update Design Guidelines with a Climate Lens	Community Development Development Planning	Yes
25.	Apply a Climate Lens to Existing Hazard Mapping and Development Permit Areas	Community Development Policy Planning	Yes
26.	Create and Implement a Policy to Encourage Development of Complete, Compact Communities	Community Development Policy Planning	Yes
27.	Update and Expand Existing Rezoning Policies	Community Development Policy Planning	Yes
	Emergency Response and Human Health		
28.	Identify and Expand Opportunities to Provide Clean/Cool Air Community Shelters	Fire Rescue	No
29.	Advocate for Upgrades to School Air Conditioning	Community Development Policy Planning	No
30.	Establish 'Extreme Weather Ambassadors'	Community Development Policy Planning	Yes
31.	Develop a Registry of Vulnerable Populations	Community Development Policy Planning	Yes
32.	Work with Utility Companies to Prioritize Restoration of Power to Lifelines and Vulnerable Populations	Community Development Policy Planning	No
33.	Engage Strata Councils and Large Building Management Companies	Community Development Policy Planning	Yes
34.	Develop a Plan to Ensure City departments are Adequately Staffed and Equipped to Respond to Extreme Weather Events	Community Development Policy Planning	Yes
35.	Increase Tri-Cities Collaboration and Coordination to Extreme Weather	Community Development Policy Planning	No
36.	Enhance Extreme Weather Event Awareness, Preparedness, and Increase Education to Residents	Community Development Policy Planning	Yes
37.	Continue Guidance for City Staff Outdoor Workers during Extreme Weather Events.	Human Resources	No
	Infrastructure		
38.	Develop a Plan for Water Metering	Engineering and Operations Infrastructure Engineering Services	No

39.	Implement Effective Utility Management Principles	Engineering and Operations Operations	Yes
40.	Develop a Green Infrastructure Strategy	Engineering and Operations Project Delivery Services	Yes
41.	Incorporate Climate Change Considerations into the City's Water Distribution and Wastewater Collections Systems	Engineering and Operations Operations	No
42.	Complete more Detailed Climate Risk Assessments of Critical or Vulnerable Municipal Facilities and/or Assets	Engineering and Operations Infrastructure Engineering Services	No
	Natural Environment		
43.	Develop and Regularly Update the Invasive Species Management Program	Community Services Environment and Parks	Yes
44.	Continue to Partner with Local Stewardship Groups	Community Services Environment and Parks	Yes
45.	Complete and Initiate the Parkland Strategy to Guide Parkland Acquisition	Community Services Environment and Parks	No TBD for future phases

Summary of Department/Division Actions

Demonstrates the number of actions in Phase Two that will be led by various departments broken down by the year of action initiation.

Lead Division	Year Initiated		
	2023	2024	Total
Building Bylaws and Licensing	1	1	2
Environment and Parks	2	0	2
Fire Rescue	1	0	1
Human Resources	1	0	1
Infrastructure Engineering Services	3	1	4
Operations	1	1	2
Policy Planning	17	9	26
Project Delivery Services	3	1	4
Solid Waste, Fleet, and Shared Services	2	1	3
Total	**31**	**14**	**45**

Budget Implications Summary

Summary of anticipated new City budget implications. Includes full City portion of funding estimations, not including possible grant funding. Staff are actively pursuing grant opportunities to offset costs where possible.

Climate Action Focus Area	Count of Actions	Summary Budget Requests	
		2023	2024
Buildings	15	$101,500	$23,000
Emergency Response and Human Health	10	$43,500	$42,300
Transportation and Mobility	5	$0	$145,000
Infrastructure	5	$275,000	$20,000
Land Use and Growth Management	4	$43,000	$18,000
Waste Reduction and Management	3	$75,000	$43,000
Natural Environment	3	$238,000	$50,000
Total $ Per Year	**45**	**$776,000**	**$341,300**
Total Funding Requested for Phase Two			**$1,117,300**

Summary of Grant Funding Identified

Summary of grant funding identified for phase two climate actions. Grants are not confirmed. Staff will continue to actively pursue grants and present opportunities to Council as they emerge.

Action	Action Funding Required	Potential Grant Opportunity
2. Develop and Implement a Concierge Retrofit Program for Large and Small Buildings – Phase 1 & 2	Phase 1 = $10,000 Phase 2 = $ In development **Additional funding contribution to be confirmed from potential project partners*	The BC Hydro Implementation Offer funding program provides up to 50% of the total eligible project costs to a maximum of up to $75,000 towards projects that bring together two or more contributing partners.
6. Identify Oil and Propane Heating Buildings	$22,000	Pacific Institute for Climate Solutions (PICS) internship program provides funding of $12,000 to cover the full cost of a summer student. Staff have submitted an application that is currently pending.
12. Create a Zero Emissions Municipal Building Policy	$6,995	The UBC Sustainability Scholar program in partnership with BC Hydro provides funding of $6,995 to cover the full cost of a summer student. Grant funding for this program was successful to cover the full cost of a 2023 summer student.
40. Develop a Green Infrastructure Strategy	$75,000	Up to $10,000 through the Local Government Infrastructure Planning Grant Program The infrastructure planning grant program is open for applications year-round and has regular processing deadlines. The next deadline is January 18, 2023
44. Continue to Partner with Local Stewardship Groups	2023 - $208,000 Implementation (starting 2024, depending on grant) - ~$700,000	Infrastructure Canada's Natural Infrastructure Fund supports projects that us natural or hybrid approaches to protect the natural environment. Staff have submitted an application for $700,000 that is currently pending for a wetland and riparian enhancement project.
Total Grant Opportunity		**$803,995**

The total required funding for Phase Two implementation is $1,921,295. A total of $1,117,300 is the City's required portion of funding, with an anticipated $803,995 targeted from grants. All city portion of funding requests for 2023 actions have been requested and approved through the 2023 budget. Funding requests for actions to be initiated in 2024 will be requested through the 2024 budget. Staff will continue to pursue grant opportunities as they become available.

To make progress on all 45 actions being initiated in phase two, additional staff capacity is required. Staff have outlined opportunities to meet the need for additional capacity:

Approach to Increase Staff Capacity in Phase Two

Capacity	Approach
The Community Development Assistant position to support climate action work equivalent to one day a week. Climate action support include: • Monitoring and enforcement of the Sustainability Report Card • Management of action and KPI status and progress reporting through Envisio	$16,000 was previously approved by Council in January 2022 from the Development Process Reserve to support the role of this position in climate action support.

Invest in Project Management through the Project Delivery Services group to lead several climate action projects: • Phase One Action – Develop a Coastal Flood Management Strategy (funding previously confirmed) • Phase Two Action 20 – Explore Creating Pedestrian Priority Zones in Key Areas • Phase Two Action 24 – Review and Update Design Guidelines with a Climate Lens • Phase Two Action 40 – Develop a Green Infrastructure Strategy	Project management costs are built into funding requests

Climate Action Funding Strategies

The City currently funds climate action projects mainly through the following methods:

- Provincial funding through the Local Government Climate Action Program;
- The Climate Action Reserve funded from general revenue and any grant monies received; and
- Grants.

While this method has been successful in supporting Phase One and Phase Two implementation, there are several ongoing challenges with the current method of funding climate action initiatives, such as:

- Provincial funding is only committed until 2024. Beyond 2024, it is uncertain if the province will continue to provide direct funding to local governments and what the amount will be; and
- Grants are highly competitive, are not guaranteed, require a significant amount of staff time, and can lead to project delays due to granting requirements.

For future years of climate action implementation, the city should consider additional climate action funding mechanisms to ensure sustainable, dedicated climate action funding which leads to progress towards committed goals and targets.

Action Classification Summary

See page below for description of action classification.

CAP Focus Area	Action Classification			
	Best Bet	Major Project	Quick Win	Total
Buildings	7	5	3	**15**
Emergency Response and Human Health	2	3	5	**10**
Infrastructure	2	3	0	**5**
Land Use and Growth Management	4	0	0	**4**
Natural Environment	1	1	1	**3**
Transportation and Mobility	0	2	3	**5**
Waste Reduction and Management	1	2	0	**3**
Total	**17**	**16**	**12**	**45**

Action Classification:

Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Quick Wins: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Major Projects: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Climate Action Focus Area Legend

Buildings		Land Use and Growth Management	
Transportation and Mobility		Emergency Response and Human Health	
Waste Management and Reduction		Infrastructure	
Natural Environment		Organization-Wide	

Buildings

Action 1 - Accelerate Adoption of the BC Energy Step Code

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, staff plan to accelerate adoption of the BC Energy Step Code beyond the current early adoption schedule and include a greenhouse gas intensity (GHGi) requirement to maximize energy efficiency and low carbon opportunities for new construction. This project involves research and industry consultation to develop an accelerated adoption schedule that meets the needs of industry while working towards climate action goals and targets.

Relevant Background

New residential and commercial buildings present a significant opportunity to build efficient, low carbon and resilient new structures. Port Moody's previous early adoption of the B.C. Energy Step Code in 2020 means that buildings built today are already more energy efficient than the current B.C. Building Code. Despite these initiatives, there are still gaps in achieving low carbon resilient buildings, which can be partially achieved by accelerating BC Energy Step Code requirements and the addition of a GHGi requirements at the local level. According to modelling done for the Climate Ready Homes and Buildings Plan, low emissions new construction initiatives, such as acceleration of the Energy Step Code with a GHGi can reduce cumulative GHG emissions from the building stock by 27%.

Action 1.1 in the Climate Ready Homes and Buildings Plan includes an action to accelerate adoption of the B.C. Energy Step Code to meet the following parameters:

- Adopt the highest steps of the BC Energy Step Code
  - Step 5 for Part 9 buildings by 2025

- Step 4 for Part 3 buildings by 2025
- Adopt GHG intensity (GHGi) limits for Part 3 and Part 9 buildings in 2023 and increase stringency by 2025.
  - 2023: 2.5 – 4 kg CO2e/m2/ year
  - 2025: 1.5 – 2 kg CO2e/m2/ year
- In the absence of the Province including GHGi targets in the Step Code, Port Moody will increase Low Carbon Energy System requirements to equivalent levels for both Part 9 and Part 3 buildings

Project Objectives
• To understand the costs and implications to the development community to accelerate local requirements for meeting the BC Energy Step Code and the addition of a GHGi requirement
• To research and outline an accelerated BC Energy Step Code adoption pathway that meets climate action goals and targets with addition of a GHGi requirement

Scope	
In Scope	• Research • Consultation with industry, the building community, and municipal staff • Legal review • Policy and bylaw amendments • Presentation to Council
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2023	**Project end date: June 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and interview other municipalities, costs and implications to the City and development community. Engage with staff via the ongoing staff Energy Step Code Working Group to understand challenges and opportunities.	January – March 2023
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan. Engage with industry experts and local builders to share research findings and receive feedback to inform options. Consult with the development community regarding incentives and potential requirements.	March – April 2023
Phase 3: Draft Pathways Based on phases 1 & 2, develop draft pathways to meet project objectives and seek legal review of options. Consult stakeholders on options. Outline information on amendments	April – May 2023

to policies/bylaws required for the options and incentives to support the roll out of pathways.	
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present options for consideration that meet project objectives. Present report and attachments for Council consideration.	June 2023

Budget	
Budget Source: Climate Action Implementation Reserve	
Phase 1: Research and Internal Engagement	$0
Phase 2: Stakeholder Engagement Two builder/industry engagement sessions	$6,500
Phase 3: Draft Pathways Legal review	$3,000
Phase 4: Report to Council	$0
Carry forward cost from OPL18003	($1,062)
☐ Request Referral to Finance Committee	$8,438

Key Performance Indicators

- Number of new units built that are compliant with Port Moody Energy Step Code Corporate Policy
  - Ratio of new units built to corporate policy vs building bylaw

Action 2 – Develop and Implement a Concierge Retrofit Program for Large and Small Buildings – Phase 1 & 2

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City

Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, staff plan to design and implement a concierge retrofit program for large and small buildings that encourages and helps facilitate energy efficiency and low carbon retrofits. This project is broken down into phases and is dependent on size of building. This work involves research and design of concierge programs, procuring consultant expertise for the design and administration of the programs, advocacy and collaboration, and ongoing monitoring and reporting of outcomes.

Relevant Background

Operational emissions from existing buildings account for 78% of Port Moody's building-related emissions. Meeting Port Moody's climate targets will require eliminating GHG emissions pollution from heating and hot water systems in all homes and buildings by 2050. Decarbonization of heating, through fuel switching, should also be paired with upgrades to building envelopes and ventilation systems to reduce overall energy use, reduce energy bills, improve air quality, ensure thermal comfort, and increase resilience to extreme weather events.

Due to constraints of authority, Port Moody is limited to accelerate action and drive early adoption for low carbon resilient buildings through innovative policy, partnerships, and advocacy. Reducing emissions from existing buildings can be partially achieved by designing and implementing a concierge retrofit program for large and small buildings. According to modelling done for the Climate Ready Homes and Buildings Plan, fuel switching retrofit initiatives, such as a concierge retrofit programs, regional building standards, and provincial equipment standards, targeting 3-4% of buildings per year to hit all budlings by 2050 can reduce cumulative GHG emissions from the building stock by 37%.

Action 2.10. in the Climate Ready Homes and Buildings Plan includes an action to design and implement a concierge retrofit program for large and small buildings. The program will provide no or low-cost support services to guide home and building owners through low emissions retrofit process, including energy and emissions audits, selecting energy conservation measure, finding qualified contractors, and accessing financing and incentives. As a part of this work, staff are exploring partnership opportunities with the tri-cities.

Currently there are existing concierge initiatives for large and small buildings available that staff recommend Port Moody join to maximize staff capacity and municipal resources:

Small buildings (Part 9 Buildings): The Community Energy Association (CEA) has presented an opportunity to design and offer a concierge service that can support single family homeowners from start-to-finish with energy efficiency retrofits. The program is titled Retrofit Assist and CEA has been collaborating with the municipalities of Whistler, Squamish and Rossland over the last year on program design and implementation of a Concierge or “one-stop-shop” service model to support single-family homeowners undergoing energy efficiency and low carbon home upgrades. The mentioned municipalities have been piloting the design starting in 2022.

Pending a successful pilot, the intention is to expand the program services to fenestration, insulation and air sealing, hot water systems, etc. CEA has opened the opportunity for more communities to participate, where communities can participate in the Retrofit Assist program design to support future implementation.

Before moving to program design, an initial assessment must be performed by CEA to understand the landscape and inform program design. An assessment will include the following:

- ***Home archetype review:*** Inventory of community assets, barriers for improving energy performance of housing stock and opportunities to mitigate barriers.
- ***Policies and Bylaws scan:*** Evaluation the existing policies and bylaws, document relevant best practices for improvement.
- ***Stakeholder Engagement***: Evaluate contractor capacity and supporting resources such as Energy Advisors.
- ***Goals and targets opportunity review***: Establish municipal goals for program in alignment with community climate targets and objectives
- ***Financing opportunities:*** Document current financial opportunities available to homeowners to support retrofit activities.

At the end of this scope of work, CEA will deliver a summary report outlining the findings of the assessment including contractor capacity summary, social, economic and environmental benefits (e.g., GHG emission reductions), results of a municipal bylaw and policy scan, equipment overview, economic lifecycle analysis given current rebates and financing findings.

Retrofit Assist Program design is a result of extensive research conducted by CEA into existing programs, and specifically those that lead to significant market penetration of heat pumps. A concierge service model design was chosen because CEA's research has shown that this model can be very successful, as demonstrated by Saint John Energy in New Brunswick even without any government subsidies. CEA's research has also shown that available incentives/rebates and financing alone are unable to significantly encourage heat pump adoption without additional industry and home-owner support. This program aims to combine successful elements identified in CEA's best practice research to make it as simple and cost efficient as possible for a homeowner to fuel switch to a heat pump when their existing heating system reaches end-of-life.

There is potential funding to support this work through the Federation of Canadian Municipalities.

Large Buildings (Part 3 Buildings): Metro Vancouver's Strata Energy Advisor Program (SEA) was a pilot program intended to accelerate the implementation of low-carbon renewal projects in strata-owned multi-family residential buildings (MURB). The ultimate objective of this program is to reduce carbon emissions from this building sector and improve climate resilience while achieving health and housing affordability co-benefits.

This SEA program has been designed to seize this opportunity, and is predicated on five principles to help address typical barriers facing strata owners:
1. Ease of Access by keeping participation barriers low to ensure that stratas that need support can get involved.
2. Strong Relationships with strata councils and property managers, establishing understanding and trust over time.
3. Credibility of program staff as experienced professionals with a deep understanding of the building systems and owners" needs, and of the organizations that support the program.
4. Information and Interpretation to support stratas in making informed decisions by simplifying complex information and presenting all the options, while actively encouraging the low-carbon, resilient path.
5. Integration with existing programs and policies to enhance support and reduce redundancy wherever possible.

SEA has been designed as a concierge-style program for MURBS to provide a single-point of contact for strata corporations and offer support with low-carbon building renewals from identifying and analyzing the best opportunities through implementation and verifying energy savings. As designed, a Strata Energy Advisor would help coordinate access to an array of qualified professionals, related rebate programs and other resources. The program is designed to provide high levels of support to strata corporations and achieve significant emissions reduction and resilience outcomes by prioritizing

buildings with imminent major retrofits with high potential to reduce GHG emissions. It is also set up to evolve over time – scaling up as funding permits and scaling down as policy and market changes reduce the need for support. The pilot has since ended and a SEA task force has been established to build off of pilot learnings and advocate for a program host. The combination of proof of concept from the original SEA pilot, a robust program guide, and strong support from municipal partners and strata associations provides a strong foundation for the next steps to be taken. These primarily include the need to understand the cost to operate the proposed program and identify program sponsors and hosts.

As a part of this action, Port Moody staff will join the SEA program task force, meeting regularly to work through next steps of this program and advocating for scaling up to a regional or provincial level. If there is no significant action on a regional or provincial SEA program by the end of 2023, Port Moody staff will report back to Council with options for a local concierge retrofit program for large buildings, building off the program design and learnings from the SEA pilot program.

Project Objectives
• Research and understand retrofit concierge programs currently available for large and small buildings
• Design and implement a concierge retrofit program for small buildings and, as appropriate, one for large buildings
• Advocate and work with regional partners to scale retrofit programs to the regional and/or provincial level

Scope	
In Scope	• Research and jurisdictional scan • Consultant assistance • Program design • Program implementation • Ongoing monitoring and reporting • Advocacy
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: October 2022	**Project end date: 2024 - Ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Jurisdictional scan and review of other concierge retrofit programs currently available. Join the SEA program task force.	October 2022 – January 2023
Phase 2: Join CEA Retrofit Assist Program Engage with CEA to join retrofit assist and undertake the assessment and program design portion of the program. Explore potential collaborations between jurisdictions. Apply for funding to support Retrofit Assist program with CEA.	January 2023 – May 2023
Phase 3: Retrofit Assist Program Design	May 2023 – December 2023

Small Buildings: After the assessment for retrofit assist is complete, CEA will assist Port Moody staff with designing the concierge retrofit program for small buildings. Staff will present the assessment results and proposed program design to Council before proceeding to implementation. Additional funding requirements will be identified at this time. **Large Buildings:** Staff will continue working with the SEA task force to move forward with a concierge retrofit program for larger buildings.	
Phase 4: Program Implementation and Ongoing Monitoring **Small Buildings:** CEA and staff will outline program implementation needs and engage with an organization/consultant that can carry out administration of the program. Staff will monitor and report on program success (i.e., homeowner feedback, number of retrofits etc.) annually through the Climate Action Implementation Annual Report. **Large Buildings:** At the end of 2023 staff will report back to Council with options for either moving forward with a regional/provincial large buildings concierge retrofit program, or a similar local program.	Program launch January 2024 - ongoing Ongoing monitoring and reporting December 2023

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1: Research and Review	$0
Phase 2: Join CEA Retrofit Assist Program Engage with CEA to join retrofit assist and undertake the assessment portion of the program	$10,000
Phase 3: Retrofit Assist Program Design	TBD, based on program assessment in Phase 2
Phase 4: Program Implementation and Ongoing Monitoring	TBD, based on program design in Phase 3
☐ **Request Referral to Finance Committee**	$10,000 in Q1 2023, future costs TBD

Key Performance Indicators

- Number of contractors participating in Retrofit Assist
- Number of homes retrofitted through Retrofit Assist
- Number of SEA task force meetings attended

Action 3 - Revise the Demolition Permit to Increase Recycling and Deconstruction Requirements

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Jess Daniels, Policy Planner		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to revise the City's Waste Management Bylaw requirements to increase recycling and deconstruction requirements. The intended result is to reduce landfill waste from deconstruction activities in Port Moody. This project involves research, a jurisdictional scan, and draft Bylaw amendments.

Relevant Background
The demolition of residential and commercial buildings results in materials being sent to the landfill. Based on a study by the City of Vancouver, commercial buildings typically have a relatively high diversion rate (approximately 80%), whereas single-family homes have a diversion rate lower than 50%. Source: City of Vancouver, Green Demolition By-law Update, (2018). https://council.vancouver.ca/20180516/documents/pspc2c.pdf To address the lifecycle impacts of buildings, Port Moody can increase requirements for demolition by creating minimum reuse and recycling requirements that apply to demolition waste when homes or building are demolished. This may also involve increasing fees if targets aren't met. Fees recovered can be used directly to fund climate action initiatives. At the July 12, 2022 Council meeting, Council passed the following related motions: *THAT staff be directed to amend City of Port Moody Waste Management Bylaw, 2011, No. 2822 to increase the percentage of recycling or reuse required for recyclable construction materials to 100% for clean wood and 85% for other recyclable materials to receive the maximum refund of the waste management fee, as outlined in the report dated June 6, 2022 from the Community Development Department – Building, Bylaw, and Licensing Division regarding Report Back on Banning Demolition;* *AND THAT City of Port Moody Waste Management Bylaw, 2011, No. 2822 be amended to require that a minimum of 70% of recyclable construction materials overall be recycled or reused in order to be eligible for a refund of any portion of the waste management fee;*

AND THAT staff be directed to update City of Port Moody Waste Management Bylaw, 2011, No. 2822 with a definition for 'deconstruction' and that 'deconstruction' be used in place of 'demolition' where feasible.

AND THAT staff be directed to increase the waste management fees as indicated in this report during the 2022 annual fees update;

AND THAT staff be directed to update all related communication materials with the term 'deconstruction' in place of 'demolition' where feasible and that these materials include a goal statement that the City is aiming to achieve 100% recycling or reuse of all recyclable materials from deconstruction of buildings;

AND THAT staff be directed to send a letter to Metro Vancouver encouraging the banning of clean wood from land fills.

Action 2.3 in the Climate Ready Homes and Buildings Plan includes an action to revise the demolition permit to meet the following parameters:

- to require 75% - 90% waste diversion through reuse and recycling when a home or building is demolished.

Council's motion from July 2022 and Action 2.3 from the Climate Ready Homes and Buildings Plan aligns and this proposal outlines staff's plan to achieve both directions.

Project Objectives
• Perform research and a jurisdictional scan of similar requirements in other areas
• Review Port Moody's current requirements
• Propose amendments to the Waste Management Bylaw that meet climate action goals and direction from Council

Scope	
In Scope	• Research • Jurisdictional scan • Policy and bylaw amendments • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: 2022	**Project end date: Q2 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review, and interview other municipalities.	2022

Phase 2: Internal Review Engage with Building, Planning and Engineering staff to understand challenges and opportunities.	2022
Phase 3: Draft Bylaw Amendments Based on phases 1 & 2, develop draft bylaw amendments to meet project objectives. Outline information on amendments to policies/bylaws.	Q1 2023
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present for bylaw adoption.	Q2 2023

Budget	
Budget Source: N/A	
Phase 1: Research and Internal Engagement	$0
Phase 2: Internal Review	$0
Phase 3: Draft Bylaw Amendments	$0
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators

- Compliance reports confirming % of materials diverted per project
- Number of compliant projects per year (tracked through number of refunds compared to total number of projects)

Action 4 - Embodied Emissions in New Construction Research and Options

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☒ Council Motion #CW22/017 to 019 ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☒ Environmental Leadership ☐ Community Evolution	☐ Healthy City

Strategic Alignment	Objective & Action 2.4: Provide leadership in climate change by thinking globally and acting locally. Respond and adapt to climate change through planning and policy development		
Proposed Priority	☒ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

Under the Embodied Emissions in New Construction project, staff plan to undertake research, industry consultation, and a legal review to outline options and implementation considerations for requiring and/or incentivizing embodied emissions reduction in new construction projects. Staff will consult with industry experts, other municipalities and present options and background information to Council for their consideration. This project proposal form outlines scope of work to undertake the most recent Council direction from February 22, 2022 and action 1.7 in the Climate Ready Homes and Buildings Plan.

Relevant Background

In June of 2019, the City of Port Moody declared a state of climate emergency. In July of 2020, City Council endorsed the Climate Action Plan. One of the six goals included in the Climate Emergency Declaration is to cut the carbon content of construction projects by 40% (compared to 2018) by the year 2030.

In 2019 Council passed the following motion based on a report Councillor Madsen brought forward regarding cement use:

> *RC19/445*
> THAT Council direct staff to report back with an assessment of the benefits, costs, feasibility, and implementation steps that would be required for the City to require that Portland-Limestone Cement (or its enhanced variant, Contempra) be used wherever cement might be called for in any future civic/public projects within the City of Port Moody, per the report dated September 28, 2019 from Councillor Hunter Madsen titled Recommendation to Reduce Local GHG Emissions by Requiring Portland-Limestone Cement in All Future Construction within Port Moody;
>
> AND THAT staff's assessment include consultation with the Cement Association of Canada, regional cement providers, and a selection of construction firms that would be affected by this change;
>
> AND THAT, if staff's assessment supports this recommendation, then the use of Portland-Limestone Cement/Contempra shall be encouraged in all private construction within our city through its inclusion and positive weighting in the Planning Department's Sustainability Checklist, and through consideration of its use in City evaluation of all rezoning applications;
>
> AND THAT, if staff's assessment supports this recommendation, then the Mayor shall be directed on behalf of Council to petition the Province for modification of the B.C. building code to require use of PLC/Contempra cement in all B.C. construction; and also bring this same proposal for consideration at the next general sessions of the Lower Mainland Local Government Association and the Union of B.C. Municipalities.

The City's Community Development – Policy Planning division staff have incorporated the reduction of embodied emissions, including the use of low-emissions materials such as Portland-limestone cement, in the updated Sustainability Report Card, active since April 1, 2022.

In 2020, Port Moody passed the following resolution in regard to the Tall Wood Early Adoption Initiative. To participate in the Tall Wood Early Adoption Initiative City staff are required to be trained and knowledgeable on mass timber projects.

> *RC20/223*
> WHEREAS Council is aware that the Province is considering changing the regulation pursuant to section 3 of the Building Act, SBC 2015, c. 2, which will authorize and regulate the construction of encapsulated mass timber buildings 7-12 stories in height (the "Tall Wood Early Adoption Initiative");
>
> AND WHEREAS Council, together with the Planning and Development Department and Port Moody Fire-Rescue, support participation in the Province of BC's Tall Wood Early Adoption Initiative;
>
> THEREFORE BE IT RESOLVED THAT staff be directed to submit a request to register the City of Port Moody with the Province of BC to include the City of Port Moody as a participating local authority in the regulation for the Tall Wood Early Adoption Initiative as outlined in the report dated April 28, 2020 from the Planning and Development Department – Building, Bylaw, and Licensing Division regarding Tall Wood Early Adoption Initiative.

This motion was completed by the City's Community Development – Building, Bylaws, and Licensing division.

On March 9, 2021 Council passed the following motions based on a report by Councillor Milani:

> *RC21/124a and RC21/125*
> THAT staff report back to Council with options on how best to:
> a) prioritize and incentivize Mass Timber (Cross-Laminated Timber (CLT)) construction for buildings over six storeys in height; and
> b) discourage the use of concrete as the main component of buildings over six storeys in height.

On July 6, 2021, staff presented a project proposal to carry out the motions above. The direction from Council was to await mass timber research being undertaken by the City's Climate Action Committee – Sustainable Building Practice Sub-Committee.

At the February 22, 2022 Regular Council meeting, Councillor Lahti presented a report detailing the summary of research and recommendations from the Climate Action Committee – Sustainable Building Practices Sub-Committee related to mass timber and embodied emissions in buildings. The following motions were passed:

> *CW22/017 to 019*
> WHEREAS Embodied carbon in a building is largely a function of materials, which means most of this impact is "upstream" of building occupancy;
>
> AND WHEREAS Portland Limestone Concrete reduces CO2 emissions by 10% compared to traditional cement and is readily available locally;
>
> AND WHEREAS The factors which will affect a decision on choice of building material would be determined based on the project as well as the efforts made in each proposal to reduce greenhouse gas and embodied carbon;

AND WHEREAS Cross Laminated Timber (CLT) building is an emerging industry and there are knowledge gaps for City staff specifically regarding code compliance and inspection;

THEREFORE BE IT RESOLVED THAT staff be directed to report back on the costs and implications to the city and the development community to set benchmark targets for embodied carbon output on all new construction;

AND THAT the City of Port Moody take all steps under the law to require that any concrete used for construction be Portland Limestone;

AND THAT City staff be trained in all aspects of CLT construction as it relates to code compliance and inspection;

AND THAT the City of Port Moody encourage the use of CLT construction when possible.

In the spring of 2022 Council considered a project proposal form that was brought forward by staff to achieve the resolutions above. Council directed staff to include this work as a part of the Phase Two Climate Action Implementation Strategy. This project proposal along with the Strategy have included this work as Council directed.

Cities such as Nelson and Vancouver are advancing building-related embodied emissions reductions work over the next year that would be valuable for Port Moody to refer to and utilize, once publicly available. Additionally, the Province is expected to publish a Lifecyle Impact Assessment Guide for Buildings and implement other initiatives aimed at reducing embodied emissions from buildings. There may be grants that become available to support this work in the next few years, as currently there is minimal external funding available.

New residential and commercial buildings present a significant opportunity to build new structures that have less embodied emissions and associated lifecycle impacts. Building off this project, staff will use outcomes of this research to inform requirements as a part of Action 13.

Project Objectives
• To understand the costs and implications to the development community to set benchmark targets for embodied emissions output on all new construction
• To research and outline ways in which the municipality may incentivize and/or require embodied carbon emissions in new construction

Scope	
In Scope	• Research • Consultant assistance • Consultation with industry experts, building community, and municipal staff • Legal review and analysis • Recommendations for meeting project objectives • Consultant assistance • Presentation to Council
Out of Scope	• Policy and bylaw amendments

	• Public engagement

Work Plan Overview	
Project start date: January 2023	**Project end date: December 2023**
Deliverable/Milestone:	*Date:*
Phase 1 - Ground truthing Hire a consultant to research and understand best practices, review and interview other municipalities, costs and implications to the city and development community. Undertake a legal review to understand the City's jurisdiction and opportunities to incentivize and/or require. Report back to Council with results of legal review and research, and revise scope of work based on research and legal review.	January – April 2023
Phase 2 - Consult industry experts Engage with industry experts, material suppliers (concrete, timber, etc.) and local builders to share research findings and receive feedback to inform options. Consult with development community regarding incentives and potential requirements.	April – July 2023
Phase 3 - Draft Options Based on phases 1 & 2 research and review, develop options to meet project objectives and seek legal review of options. Outline information on amendments to policies/bylaws required for the options and incentives to support the roll out of options.	July – October 2023
Phase 4 - Prepare Documents Prepare supporting documents, presentation, and report to Council to present options for consideration that meet project objectives.	October – November 2023
Phase 5 - Report to Council Present report and attachments for Council consideration.	December 2023

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1 Legal fees Consultant	 $5,000 $10,000
Phases 2-5 Communications and Engagement Legal fees Consultant Assistance	 $10,000 $8,000 $15,000
☒ **Request Referral to Finance Committee**	$48,000 in 2023

Key Performance Indicators
• Number of stakeholders engaged with • Completion of legal review

Action 5 - Identify Oil and Propane-Heated Buildings

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Student Project – Managed by Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to identify oil and propane heated buildings in Port Moody and outline strategies to support fuel switching of these properties to low carbon energy systems. This project involves hiring a summer student to perform research, data gathering and analysis, and stakeholder engagement and outreach.

Relevant Background
Operational emissions from existing buildings account for 78% of Port Moody's building-related emissions. Meeting Port Moody's climate targets will require eliminating GHG emissions pollution from heating and hot water systems in all homes and buildings by 2050. Decarbonization of heating, through fuel switching, should also be paired with upgrades to building envelopes and ventilation systems to reduce overall energy use, reduce energy bills, improve air quality, ensure thermal comfort, and increase resilience to extreme weather events. Although the technology and processes to decarbonize buildings are available today, retrofitting presents a range of challenges, including high upfront costs and payback expectations, split incentives, lack of awareness and education, and limited industry capacity. There are currently no standards for energy efficiency, GHG emissions, or resilience for existing buildings; therefore, meeting emissions reduction targets requires building owners to make voluntary upgrades to their buildings. Action 2.12 in the Climate Ready Homes and Buildings Plan includes an action to conduct research to identify buildings with primary sources of oil and propane heating in Port Moody and create an outreach plan to support the decarbonization of these buildings. Under this project staff propose to: • Explore opportunities to hire a student to assist in completing the project which involves: ○ Accessing and reviewing available data to inform which properties in Port Moody are heated by oil and propane and the associated energy use and GHG emissions; and

- Work with the City's communications team to develop a communication and outreach plan to encourage fuel switching of these energy systems.

After the students work is completed, staff will present the outreach plan for Council consideration, and pending endorsement, will work to implement the outreach plan as directed.

The Pacific Institute for Climate Solutions (PICS) provides funding for student led projects in the spring of each year. This provides an opportunity to increase Port Moody's capacity to undertake a foundational action such as this. The funding is intended to go towards student wages but will require additional funding from the municipality to undertake this work with a student. The program partially funds a student for the summer term of 2023. Staff have submitted a funding application to PICS to support a summer student and awaiting further details.

Project Objectives
• Access data available and review data to understand energy use and emissions of propane and oil heated properties in the City
• Work with the City's communications team to develop a communication and outreach plan to encourage fuel switching of these energy systems and seek Council endorsement of the outreach plan
• Implement the communication and outreach plan as directed

Scope	
In Scope	• Research and review • Data gathering and analysis • Stakeholder outreach • Developing communications materials
Out of Scope	• Public engagement • Policy development

Work Plan Overview	
Project start date: May 2023	**Project end date: March 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Data Gathering and Analysis Engage with educational institutions and organizations that hire temporary assistance. Once hired, the student will gather all data available and perform analysis.	May – June 2023
Phase 2: Outreach and Communication Student will assist staff in developing (and pending time of the student, implementing) the outreach plan as directed. Present communication strategies for Council consideration.	June – August 2023
Phase 3: Final Deliverables	August 2023

Student will develop a process for continued tracking of oil and propane heated buildings and methodology for calculating GHG emissions. Staff to continue implementation communication and outreach strategies as directed.	

Budget	
Budget Source: Climate Action Implementation Reserve	
Phase 1: Research and Review Summer student wage subsidy (PICS) - pending approval Summer student wage City portion Mileage/car share	 ($12,000) $4,000 $1,000
Phase 2: Outreach and Communication Survey + promotion, communications materials	$5,000
Phase 3: Final Deliverables	$0
☐ **Request Referral to Finance Committee**	$10,000

Key Performance Indicators
• Number of oil heated buildings and volume of heating oil used if available • Number of propane heated buildings and BTUs used if available

Action 6 - Implement Permit Streamlining for Low Carbon Buildings

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Jess Daniels, Policy Planner		
Project Origin:	☒ Council Motion #RC 22/111 ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☒ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	Objective & Action 2.4: Provide leadership in climate change by thinking globally and acting locally. • Respond and adapt to climate change through planning and policy development		

Proposed Priority	☒ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan and directed by Council, staff are working to implement a streamlined development application for priority areas policy. The policy sets out the criteria and requirements for a streamlined development application approval process for rezoning applications that prioritize several municipal priorities including building construction that results in reduced embodied and operational greenhouse gas (GHG) emissions.

Relevant Background
New residential and commercial buildings present a significant opportunity to build efficient, low carbon and resilient new structures. Port Moody's previous early adoption of the B.C. Energy Step Code in 2020 means that buildings built today are already more energy efficient than the current B.C. Building Code. Despite these initiatives there are still gaps in achieving low carbon resilient buildings, which can be supported by further encouraging low carbon buildings to be constructed through the streamlining policy. Streamlining or fast-tracking development applications is a municipal tool that articulates to the development community municipal priorities and encourages applications that meet these priorities by expediting the application review and consideration of entitlements process. While there is not a direct financial incentive from a streamlining policy, time savings to an application process can result in cost savings to an applicant and expedited delivery on priority area goals. Action 1.10 in the Climate Ready Homes and Buildings Plan includes direction to incentivize low-carbon and/or resilient buildings by expediting permitting for buildings that meet specified criteria. Through this project staff will outline low carbon resilient criteria for applicants to meet in order for the application to be streamlined. This work will include preparing and implementing an interim corporate policy for the streamlining of development applications that meet specified criteria. Following approximately one year of the interim policy implementation (2024), staff will develop an ongoing streamlined development application corporate policy for Council consideration.

Project Objectives
• To develop an interim development application streamlining corporate policy and associated criteria
• To monitor the effectiveness of the interim policy over one year
• To review and update the interim policy based on the one-year monitoring period and present a draft ongoing policy for Council consideration

Scope	
In Scope	• Research • Consultation with staff • Legal review • Policy amendments

	• Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: September 2022	**Project end date: March 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and review other municipalities similar policies. Draft interim policy and seek Council endorsement. Pending endorsement, interim policy will be implemented for approximately one year.	September 2022 – December 2022
Phase 2: Refine Interim Policy Track implementation of interim policy, receive feedback on interim policy from staff and development applicants. Refine policy based on implementation tracking and feedback.	January 2023 – January 2024
Phase 3: Report to Council Prepare supporting documents, presentation, and report to Council to present ongoing corporate policy for implementation. Present report and attachments for Council consideration.	March 2024

Budget	
Budget Source: N/A	
Phase 1: Research and Internal Engagement	$0
Phase 2: Refine Interim Policy	$0
Phase 3: Report to Council	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of applications being streamlined per year   ○ Ratio of streamlined applications vs non streamlined applications

Action 7 - Mandatory Building Energy Benchmarking and Disclosure Requirement for Part 3 Buildings

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to outline and implement a mandatory building energy benchmarking and disclosure requirement for part 3 buildings that are already built or recently received occupancy. This project involves research and review, staff engagement, and policy creation.

Relevant Background
Operational emissions from existing buildings account for 78% of Port Moody's building-related emissions. Meeting Port Moody's climate targets will require eliminating GHG emissions pollution from heating and hot water systems in all homes and buildings by 2050. Decarbonization of heating, through fuel switching, should also be paired with upgrades to building envelopes and ventilation systems to reduce overall energy use, reduce energy bills, improve air quality, ensure thermal comfort, and increase resilience to extreme weather events. Although the technology and processes to decarbonize buildings are available today, retrofitting presents a range of challenges, including high upfront costs and payback expectations, split incentives, lack of awareness and education, and limited industry capacity. There are currently no standards for energy efficiency, GHG emissions, or resilience for existing buildings; therefore, meeting emissions reduction targets requires building owners to make voluntary upgrades to their buildings. The purpose of benchmarking and disclosure of this building-level data is to better understand how buildings are performing compared to similar ones, identify areas to improve, and increase building energy and emissions literacy through sharing. Disclosure and labelling programs can help encourage energy efficient and low carbon solutions and are an important part of many market-transformation strategies. Action 2.2 in the Climate Ready Homes and Buildings Plan includes an action to implement mandatory benchmarking and disclosure of energy and emissions performance in Part 3 buildings through Metro Vancouver's planned regulation. Metro Vancouver's pending regulation is in development through the anticipated Climate 2050 Strategy. Staff will continue to stay updated on any progression in this space through the Metro Vancouver

Regional Engineers Advisory Committee – Climate Protection Subcommittee (REAC-CPS). This group meets monthly and is an opportunity for member municipalities to get updates on Metro Vancouver led climate initiatives, provide input, and collaborate.

While regional initiatives are in the works, the City has joined a pilot opportunity through Building Benchmark BC (BBBC). BBBC is a voluntary building energy benchmarking and disclosure program, currently in its 3rd year of operation. Being a part of the initiative means that Port Moody will track, benchmark, and publicly disclose energy and emissions data for City-owned facilities and encourage building owners and operators in the community to do the same.

In the absence of regional action, staff will outline options for implementing a benchmarking and disclosure requirement at the municipal scale, first by encouraging local building owner participation in the voluntary Building Benchmark BC program to help build awareness and capacity of the local building industry to measure, track and improve their performance and scaling towards a requirement for Part 3 buildings over time.

Project Objectives
• Participate in the Building Benchmark BC program
• Work with Metro Vancouver to support implementation of a regional benchmarking requirement as indicated in Metro Vancouver's Climate 2050 Plan;
• Design and implement a local energy benchmarking requirement for Part 3 existing buildings if not done at the regional level

Scope	
In Scope	• Research and jurisdictional scan • Policy design • Policy implementation • Stakeholder consultation • Staff consultation • Ongoing monitoring and reporting
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: August 2022	**Project end date: Ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Building Benchmark BC Sign on as a pilot participant of Building Benchmark BC (BBBC). Benchmark civic facilities and reach out to building owners in BC to encourage participation. Once the pilot period ends, report back to Council with information on outcomes, benefits, and costs to continue participating in the BBBC program.	August 2022 – August 2023 - Complete

Phase 2: Engage Metro Vancouver Regularly communicate with Metro Vancouver to support a region-wide benchmarking requirement. If there is no significant progress on a region-wide benchmarking requirement by the end of 2023 then staff will proceed to phase 3.	August 2023 – ongoing
Phase 3: Local Benchmarking and Disclosure Requirement Perform research on best practices, jurisdictional scan, and interview municipalities to learn from experience. Engage staff and stakeholders to inform draft benchmarking and disclosure requirements. Draft benchmarking and disclosure requirements and seek legal review of requirements. Present draft requirements for Council consideration along with staff capacity and budget impacts.	Q1-Q4 2024
Phase 4: Implement Requirements Implement requirements as directed by Council. Implementation may require additional staff capacity and budget, to be determined in Phase 3.	Q1 2025 – ongoing

Budget	
Budget Source: TBD	
Phase 1: Building Benchmark BC 2023 2024 – ongoing	 $0 TBD
Phase 2: Engage Metro Vancouver Receive regular updates and ongoing collaboration with Metro Vancouver	 $0
Phase 3: Local Benchmarking and Disclosure Requirement Engage stakeholders Legal review	 TBD
Phase 4: Implement Requirements Staff capacity and budget impacts	 TBD
☐ **Request Referral to Finance Committee**	$0 in 2023 $ TBD for future phases of work and years

Key Performance Indicators
• Number of existing buildings being benchmarked annually through Building Benchmark BC • Number of existing buildings being disclosed annually through Building Benchmark BC

Action 8 - Pilot Low-Carbon Resilience Audits in Civic Facilities

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, staff are working to pilot low carbon resilience audits in civic facilities to maximize energy efficiency and low carbon opportunities for municipally owned buildings. This project involves working with a consultant to perform climate audits, engaging with staff in various departments and facilities, developing a facility renovation and upgrade recommendation report that meets climate action goals and targets, and sharing audit methodology and outcomes with stakeholders and the community.

Relevant Background

The City of Port Moody owns and operates many buildings for operations, and the delivery of services within the community. The energy used at these civic facilities is responsible for 54% of the City's corporate GHG emissions. Most of this energy use is attributed to natural gas for heating and hot water in a few buildings: the Recreation Complex (42%), Westhill Centre Pool (12%), Rocky Point Park Pool (9%) and the Civic Centre (9%). Retrofitting civic facilities to be low carbon and resilient shows Port Moody's commitment to climate action through innovation and leadership, demonstration of technical and policy solutions, building industry capacity, creating jobs, and ensuring residents are safe and healthy in community buildings.

According to modelling done for the Climate Ready Homes and Buildings Plan, actions for deep energy and fuel switching retrofits of civic facilities can reduce community wide GHG emissions from buildings by 2%.

Port Moody has made progress on civic facilities through the following initiatives:
• In 2020 the City completed significant repairs to the Civic Centre, Recreation Complex, and Arts Centre building envelopes. Higher-performing building envelopes (with improvements to insulation, windows, and doors) prevent heated or cooled air from leaking out – this reduces the amount of energy needed to make indoor spaces comfortable.

• The City received funding from the Federation of Canadian Municipalities in the amount of $153,400 to perform energy audits on the top GHG emitting facilities and develop a recommendation report that outlines facility upgrades and technology solutions that will achieve an 80% reduction in civic facility operational emissions by 2030 and net zero emissions by 2050.

Action 2.14 in the Climate Ready Homes and Buildings Plan includes an action to develop or promote an existing framework for assessing climate risk, energy and GHG emissions performance of existing homes and buildings. For homes, the Federal government has committed to creating a Climate Adaptation Home Rating Program as a companion to EnerGuide Home Energy Audits which could be utilized in Port Moody.

Port Moody has hired Prism Engineering to conduct the climate audits and prepare a recommendation summary. This work was initiated in 2022 under the Phase One Climate Action Implementation Strategy. This action builds off this project by documenting the climate audit process and sharing the process and learnings with various stakeholders and the community to inspire and encourage their GHG reduction and climate adaptation progress.

The results of the pilot climate audits will be documented and shared with stakeholders, the community, and municipal climate action networks to increase industry knowledge and awareness of municipal low carbon solutions.

Project Objectives
• To create, pilot, and document a framework for climate audits of municipally owned facilities.
• To outline a recommended pathway for reaching municipal GHG reduction targets
• To share climate audits results with stakeholders, the community, and municipal climate action networks for their learnings

Scope	
In Scope	• Consultant assistance • Staff engagement • Communications
Out of Scope	• Public engagement • Policy development

Work Plan Overview	
Project start date: August 2022	**Project end date: June 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Climate Audits Prism Engineering and City staff to complete audits of civic facilities (25 facilities).	August– October 2022 - complete
Phase 2: Climate Risk and Vulnerability Assessment Prism Engineering and City staff to complete a climate risk and vulnerability assessment of all civic facilities.	October – February 2023
Phase 3: Draft Pathways and Recommendations	January – May 2023

Based on phases 1 & 2, Prism to work with City staff to develop recommendations and pathways for achieving municipal GHG reduction targets and climate resilience goals.	
Phase 4: Pilot Results Sharing Document the audit process, outcomes, and learnings and compile into an easy to read case study. Share the document(s) with stakeholders, the community, and municipal staff from other jurisdictions.	June 2023

Budget	
Budget Source: N/A - previously funded through City budgets and FCM grant funding	
Phase 1: Climate Audits	$0 – previously funded
Phase 2: Climate Risk and Vulnerability Assessment	$0 – previously funded
Phase 3: Draft Pathways and Recommendations	$0 – previously funded
Phase 4: Report to Council	$0 – previously funded
☐ **Request Referral to Finance Committee**	$0 – previously funded

Key Performance Indicators

- Number of climate audits completed on civic facilities
- GHG emissions of facilities per year

Action 9 - Top-ups for Existing Incentive Programs

Climate Action Project Classification

Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, staff recommend investing in municipal top ups on existing rebate programs to further encourage and incentivize fuel-switching and energy efficiency retrofits. This project involves research, coordination with utilities and the Provincial government, and communication and engagement with the community.

Relevant Background

The CleanBC Better Homes program assists homeowners in accessing information and rebates related to reducing home energy use and greenhouse gas emissions through retrofits and upgrades. The program is funded by the Province of British Columbia and the Government of Canada under the Low Carbon Economy Leadership Fund, and rebates are administered by BC Hydro and FortisBC.

The CleanBC Better Homes program allows local governments to offer tailored municipal top-up rebates and encourages local governments to support the program through media channels by promoting the available incentives. Up front financial costs are a significant burden to homeowners looking to switch their home heating, cooling, and hot water heating systems to low carbon solutions.

The development of a CleanBC Better Homes municipal top-up rebate for electric heat pump space heating and electrical service upgrades offers opportunities to further promote the climate emergency declaration and support climate action initiatives in the City. Municipalities offering top-ups provide a budget to the CleanBC Better Homes administration team and support the program by promoting the municipal and provincial rebate offers locally. The CleanBC program sets the value per each rebate and the number of top-up rebates available is determined based on the total budget provided by the municipality. There is no additional application process for homeowners to access municipal top-ups as eligibility is automatically assessed when a CleanBC rebate application is submitted.

Participating in a CleanBC municipal top-up and heat pump group purchase rebate program was initiated and supported by the Climate Action Committee in 2021. At the June 22, 2021, Regular Council meeting, Council asked staff to report back with options for providing a top-up. As a result, a $2,000 budget was provided to staff for the promotion of CleanBC Better Homes Programs.

Action 2.6. in the Climate Ready Homes and Buildings Plan includes an action to provide top-up incentives to complement existing federal, provincial, and non-governmental organization (NGO) programs to help support homeowners in installing electric heat pumps for space and water heating, as well as any necessary electric service upgrades. (e.g., $2,000 top-up for electric heat pumps for space heating, $1,000 for electric heat pumps for hot water, and/or $500 incentive for electric service upgrades).

Municipal top-ups on CleanBC have been very successful in many BC communities, exemplified through fully subscribed top-up programs. Municipal top-ups, especially when stacked with other incentives available, can add meaningful financial benefit to homeowners. In addition, the municipal top-up displays leadership by the municipality in supporting residents to reduce climate impacts and highlights a priority climate action area that residents can take on.

Since the top-ups were last considered in 2021 there have been program changes in addition to changes in local government climate action funding through the Local Government Climate Action Program. Through this project, staff will research and explore top-up up opportunities and present options to Council for their consideration.

Project Objectives
• To research and explore existing rebate programs and options for Port Moody to provide a municipal top-up
• To present a suite of options along with recommended funding sources for a potential Port Moody top-up rebate for Council consideration

Scope	
In Scope	• Research • Coordination with utilities and provincial government • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: January 2023	**Project end date: June 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Exploring Options Research to understand what available rebates allow for municipal top-ups. Based on available municipal funding put together multiple options of top-ups that Port Moody could provide.	January – March 2023
Phase 2: Present Options to Council Prepare supporting documents, presentation, and report to Council to present municipal rebate top-up options. Present report and attachments to Council for their consideration.	April 2023

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1: Research and Exploring Options	$0
Phase 2: Present Options to Council	$0
Future Implementation of Rebate Top-Ups Annual cost, depending on the length of time the top-up is available for.	Estimated rebate budget of up to $25,000 annually
☐ **Request Referral to Finance Committee**	$0 for developing and presenting options Estimated implementation cost of approximately $25,000 annually

Key Performance Indicators
• Number of top ups provided vs number of top ups issued per year in Port Moody • Number of heat pumps installed with a rebate

Action 10 - Update Bylaw Barriers for Low Carbon New Buildings and Retrofits

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to review and update bylaws to remove barriers to energy efficiency and low carbon opportunities for new construction and retrofits. This project involves research and review, staff engagement, and bylaw updates.

Relevant Background

Local bylaws and requirements can have an impact on the ability and degree to which new buildings can be built and existing buildings can be renovated to be low carbon. For example, Sound Level Bylaws can restrict heat pump installations and Zoning Bylaws can restrict the location of heat pumps.

Under this project staff propose to explore options to identify and remove bylaw barriers to low-carbon buildings, for example:

- Provide height limit exceptions for mechanical equipment;
- Create exceptions to setback requirements for heat pumps, and external shading; and
- Review and update existing zoning bylaw exceptions for green building systems.

Staff will interview and research other jurisdictions to learn about amendments to their bylaws that incentive low carbon resilient retrofits, renovations, and new buildings. For example, the City of Vancouver has produced a heat pump and bylaws clarification guide that can be leveraged in the City of Port Moody.

Staff will review existing City of Port Moody bylaws including but not limited to:

- Sound Level Bylaw;
- Zoning Bylaw; and
- Building Bylaw.

The review will be undertaken with the objective to identify and remove barriers to low carbon and resilient retrofits, with a focus on heat pump technology.

Project Objectives
• Perform research and review low carbon building Bylaw requirements in other jurisdictions
• Review City Bylaws that affect new construction and existing buildings renovations and retrofits
• Propose Bylaw updates that remove barriers to low carbon buildings

Scope	
In Scope	• Research and review • Staff engagement • Interviews of other jurisdictions • Policy and bylaw amendments • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: September 2022	**Project end date: May 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Review other jurisdictions Bylaws, guides, and requirements that relate to low carbon new and existing buildings. Review Port Moody Bylaws and requirements and guides.	September 2022 – February 2023
Phase 2: Draft Bylaw Amendments Share research and review from Phase 1 with Planning and Building teams to discuss and determine appropriate solutions for Port Moody Bylaw amendments. Prepare draft bylaw amendments.	February 2023 – April 2023
Phase 3: Council Presentation Present summaries of Phase 1 and 3 along with draft Bylaw amendments for Council consideration.	May 2023

Budget	
Budget Source: N/A	
Phase 1: Research and Review	$0
Phase 2: Draft Bylaw Amendments	$0
Phase 3: Council Presentation	$0

☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of bylaws updated per year

Action 11 – Develop a Thermal Conditioning Permit

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Robyn MacLeod, Manager of Building, Bylaws, and Licensing		
Staff Lead:	Robyn MacLeod, Manager of Building, Bylaws, and Licensing		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to develop a thermal conditioning permit. This project involves research and industry consultation to understand appropriate provisions, staff engagement, and policy requirements.

Relevant Background
New residential and commercial buildings present a significant opportunity to build efficient, low carbon and resilient new structures. A thermal conditioning permit is a proposed new permit enforced by a local government and would apply to all space heating, cooling and domestic hot water equipment installed in new and existing buildings. The thermal conditioning permit would support proper heat load calculations, mechanical design, and installation of heat pumps. Adequate staffing and resourcing are essential to ensure the successful implementation of such a permit. It is recommended that local governments engage mechanical industry to determine the appropriate provisions. Heat load calculations are important to good mechanical design and specified by the CSA F-280 standard referenced in the BC Building Code. However, mechanical contractors rarely conduct such calculations as they can be time consuming, adding to costs for contractors when assessing prospective clients' homes.

Local governments with partners could initiate a program to proactively conduct heat load calculations of homes that are candidates for retrofits and new builds. Stakeholders will be convened to determine the best approach for conducting heat load calculation for retrofit and new build applications. When EnerGuide Rating System home energy evaluations are performed a heat load calculation can be produced. Such heat loss calculations could dovetail with other municipal services involving visits to residents' homes (e.g., water efficiency direct install programs, etc.).

Municipalities with similar permits include:

- Requiring installers have certification with industry association programs (e.g., TECA Quality First, etc.) that include quality control of certified contractor installations;
- A heating permit could also be used to build stakeholder (contractor, consumer, building official) awareness about the greenhouse gas implications of installing different types of heating systems; and
- A sliding scale permit fee could be applied based on the relative increase in emissions. For example, in a retrofit scenario a switch from electricity to gas heating would result in a higher permit fee and a switch from natural gas to a heat pump could be free.

Local governments, the Province, Technical Safety BC, and industry stakeholders should explore the possibility of establishing some authority responsible for regulation and enforcement of efficiency and functioning provisions of the Building Code and other requirements in buildings. Such an entity could operate in a similar manner as Technical Safety BC.

Action 2.1 in the Climate Ready Homes and Buildings Plan includes an action to develop a thermal conditioning permit to support proper heat load calculations, mechanical design, and installation, by requiring permits for all space heating, cooling and domestic hot water equipment in new and existing buildings.

Project Objectives
• To research and explore thermal conditioning permits and requirements in other jurisdictions
• To engage with industry stakeholders to determine appropriate provisions for a Port Moody thermal conditioning permit, including exploring potential partnerships to support the permit implementation
• To outline parameters and recommend implementation of a thermal conditioning permit for Council consideration

Scope	
In Scope	• Research • Consultation with industry and the building community • Engagement with staff • Policy creation • Presentation to Council
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: June 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and interview other municipalities, costs and implications to the City and development community. Engage with staff via the Staff Energy Step Code Working Group to understand challenges and opportunities of the permit and its implementation.	January – March 2024
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan and seek Council endorsement. Engage with industry experts and local builders to share research findings and receive feedback to inform options. Consult with the development community regarding incentives and potential requirements.	March – May 2024
Phase 3: Draft Provisions Based on phases 1 & 2, develop draft thermal conditioning provisions and seek a legal review. Outline information on amendments to policies/bylaws required for the permit.	April – August 2024
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present options for consideration that meet project objectives. Present report and attachments for Council consideration.	September 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Internal Engagement	$0
Phase 2: Stakeholder Engagement Builder/ industry engagement sessions x2	$5,000
Phase 3: Draft Provisions Legal review	$5,000
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$10,000 in 2024

Key Performance Indicators
• Number of thermal conditioning permits issued annually • Number of heat pump installations annually   ○ Broken down by retrofit or new builds

Action 12 - Create a Zero Emissions Municipal Building Policy

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan and Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to develop a zero emissions municipal building policy and track progress against GHG reduction targets for municipally owned buildings to guide emissions reduction retrofits and renovations. Additionally, the policy should include the requirement to use future climate data in the design and renovation and facilities. This project involves research and review, staff engagement, and policy creation.

Relevant Background
Municipalities have full control over the construction, maintenance, and operation of the facilities that they own. The City of Port Moody owns and operates many buildings for operations, and the delivery of services within the community. The energy used at these civic facilities is responsible for 54% of the City's corporate GHG emissions. Most of this energy use is attributed to natural gas for heating and hot water in a few buildings: the Recreation Complex (42%), Westhill Centre Pool (12%), Rocky Point Park Pool (9%) and the Civic Centre (9%). Building and retrofitting civic facilities to be low carbon and resilient shows Port Moody's commitment to climate action through innovation and leadership, demonstration of technical and policy solutions, building industry capacity, creating jobs, and ensuring residents are safe and healthy in community buildings. To increase low-carbon resilience in municipal buildings, Port Moody has set the following target through the 2022 Climate Ready Homes and Buildings Plan: • 80% reduction in operational emissions from civic facilities by 2030 Building and retrofitting civic facilities to be low carbon and resilient shows Port Moody's commitment to climate action through innovation and leadership, demonstration of technical and policy solutions, building industry capacity, creating jobs, and ensuring residents are safe and healthy in community buildings.

The Climate Action Plan includes an action to develop and implement a green buildings policy for the construction and renovation of City-owned facilities. Action 3.6 in the Climate Ready Homes and Buildings Plan includes direction to use future climate data in building maintenance, renewal, and design to identify and address relevant hazards. These actions will be satisfied through this project.

Under this project staff plan to apply the net zero-emissions standard to address operational emissions and include measurement and targets for embodied emissions and develop a process to integrate future climate considerations into the maintenance, renewal and design of municipally owned buildings. This work will include:

- Reviewing maintenance, renewal, and design procedures and policies for municipal buildings;
- Gathering climate data to inform climate conscious design making throughout building lifecycles for municipally owned buildings;
- Developing and document a process to guide the integration of climate change considerations into the maintenance, renewal, and design of municipal buildings;
- Developing a zero emissions municipal building policy; and
- Track progress against GHG reduction targets for municipally owned buildings.

In December of 2022, the City was notified that a funding application to BC Hydro to cover student wages was successful. The City received funding from BC Hydro to cover the full cost of a UBC Sustainability Scholar to assist with this work for the summer of 2023 at no additional cost to the City. The student will undertake the research, data gathering and compilation of information, interviews with municipalities and culminate their work with a draft policy for staff to review, modify and present to Council for consideration.

Project Objectives
• Perform research and review low carbon resilient building policies for municipal buildings in other jurisdictions
• review of City policies, procedures, manuals etc. that affect the construction, operation, and maintenance of civic facilities
• Develop a zero-emissions building policy with associated GHG reduction targets and use of future climate data for Council consideration

Scope	
In Scope	• Research and review • Staff engagement • Student assistance • Policy and document updates • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: May 2023	**Project end date: March 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review	May – June 2023

Review other jurisdictions policies that relate to low carbon municipal buildings. Review Port Moody policies and requirements related to renovation and renewal of City owned facilities.	
Phase 2: Draft Policy Share research and review from Phase 1 with Planning, Facilities, Operations and Building teams. Prepare draft policy, draft procedures and guidelines as needed.	July 2023 – January 2024
Phase 3: Council Presentation Present summaries of Phase 1 and 2 along with draft policy considerations for Council consideration.	March 2024

Budget	
Budget Source: **N/A**	
Phase 1: Research and Review Student wages covered by BC Hydro	$(7,000)
Phase 2: Draft Policy	$0
Phase 3: Council Presentation	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators

- Number of staff engaged in policy development
- Number of/ projects retrofitted using future climate data

Action 13 - Embodied Emissions Disclosure at Time of Permit

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to create and implement an administrative requirement for the calculation and disclosure of embodied emissions at the time of permitting for new construction projects. This involves stakeholder consultation, policy creation and amendments, and ongoing document review.

Relevant Background
New residential and commercial buildings present a significant opportunity to build new structures that have less embodied emissions and associated lifecycle impacts. Lower embodied emissions construction methods for new buildings have the potential to reduce community wide embodied emissions of 5% according to modelling done by consultants for the 2022 Climate Ready Homes and Buildings Plan. The approach to regulating embodied emissions will differ by building type, for example: • low-carbon construction of single-family homes; • reduced garage, and parkade space (and the associated concrete) in multifamily buildings and offices; and • low emissions concrete and/or mass-timber construction for commercial and multifamily buildings. Building off the embodied emissions research and options performed by staff in 2023, staff will use outcomes of this research to inform permitting requirements that will be drafted and presented for council consideration in 2024. Action 1.7. in the Climate Ready Homes and Buildings Plan includes an action to development requirements for embodied emissions disclosure at time of permitting. This involves implementing an administrative requirement for embodied emissions disclosure through the submission of a lifecycle assessment (LCA) for Part 3 and Part 9 buildings at the time of permit application. Buildings will be required to calculate and report the life-cycle

emissions (in carbon dioxide equivalent) of the structure and enclosure in kgCO2e/m² for modules A-C over 60-years (include module D separately when available).

Project Objectives
• To develop an administrative requirement for the calculation and disclosure of embodied emissions associated with a new building proposal at time of permitting
• Share proposed requirements with stakeholders to understand challenges and opportunities
• Seek Council approval of the administrative requirement and implement into the permitting process

Scope	
In Scope	• Research and jurisdictional interviews • Stakeholder engagement • Policy creation and amendments • Council presentation
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: September 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Interviews Research to understand best practices, review and interview other municipalities. Engage with staff via the Staff Energy Step Code Working Group to understand challenges and opportunities for embodied emissions disclosure requirement. Build off learnings from embodied emissions research and options project in 2023.	January – March 2024
Phase 2: Proposed Administrative Requirements Based on phase 1 outline draft amendments to policies and requirements required for the options and discuss with staff.	March – May 2024
Phase 3: Stakeholder Engagement Develop a stakeholder engagement plan and seek Council endorsement. Engage with industry experts and local builders to share research findings and receive feedback to inform requirements. Consult with development community regarding potential requirements.	May – July 2024
Phase 4: Council Presentation Based on the initial phases, develop draft information on amendments to policies/bylaws required for the options and requirements to support the roll out of the embodied emissions requirements.	September 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Interviews	$0
Phase 2: Proposed Administrative Requirements Legal review	$2,000
Phase 3: Stakeholder Engagement Builder engagement session x1	$3,000
Phase 4: Council Presentation	$0
☐ **Request Referral to Finance Committee**	$5,000 in 2024

Key Performance Indicators
• Number of projects submitting embodied emissions information vs total number of applications • Number of applications achieving total embodied carbon emissions below 500 $kgCO_2e/m^2$

Action 14 - Encourage Voluntary Disclosure for Carbon and Risk of Part 3 Buildings

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to encourage voluntary disclosure for carbon and risk of Part 3 buildings. Completing this action involves stakeholder consultation, policy creation and amendments, and ongoing document review.

Relevant Background

Operational emissions from existing buildings account for 78% of Port Moody's building-related emissions. Meeting Port Moody's climate targets will require eliminating GHG emissions pollution from heating and hot water systems in all homes and buildings by 2050. Decarbonization of heating, through fuel switching, should also be paired with upgrades to building envelopes and ventilation systems to reduce overall energy use, reduce energy bills, improve air quality, ensure thermal comfort, and increase resilience to extreme weather events. Although the technology and processes to decarbonize buildings are available today, retrofitting presents a range of challenges, including high upfront costs and payback expectations, split incentives, lack of awareness and education, and limited industry capacity. There are currently no standards for energy efficiency, GHG emissions, or resilience for existing buildings; therefore, meeting emissions reduction targets requires building owners to make voluntary upgrades to their buildings.

The Climate Ready Homes and Buildings Plan includes an action to encourage voluntary disclosure for carbon and risk of Part 3 buildings. This can be achieved by working with real estate industry members to socialize and encourage voluntary home energy labelling, home energy performance, and flood risk disclosure at the time of sale. Through this project staff will:

- Build a relationship with real estate professionals and industry representatives through targeted communication and worshops;
- Gather data and information to assist in understanding carbon and climate risk of buildings in the community;
- Connect real estate professionals to tools and information to socialize carbon and risk information from buildings in the community; and
- Advocate to the Province for the disclosure of carbon and risk information to be required at the time of sale.

Benefits of tracking and disclosure of carbon and risk information for buildings includes:

- They benefit home shoppers, so that they can better understand the operational costs, insurance costs, and future risk of a given property, and more readily identify efficiency improvements that will lower costs and risk over the long term. This information increases transparency for home shoppers, improves their ability to differentiate between properties, and ultimately provides an additional level of consumer protection.
- They help home sellers convey the value of their low carbon resilient improvements, adding a selling point to their home.
- They give real estate agents insights into a home’s energy performance and risk and any onsite renewable energy features, so that they can more effectively market and value a property.
- Supports workforce development by increasing demand for home energy audits and home performance upgrades, potentially spurring job creation.
- Help all levels of government meet energy reduction targets by motivating homeowners and potential buyers to invest in energy-efficiency measures.
- Can provide valuable information to homeowners and potential buyers about the steps they can take to improve a home’s energy performance and lower its greenhouse gas emissions.

Project Objectives
• Build a relationship with real estate professionals and industry representatives
• Gather data and information to assist in understanding carbon and climate risk of buildings in the community
• Connect real estate professionals to tools and information to socialize carbon and risk information from buildings in the community

• Advocate for the disclosure of carbon and risk information at the time of sale

Scope	
In Scope	• Research and jurisdictional scan • Stakeholder engagement • Data gathering
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: Ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Research Perform research on the tools, methods, benefits, and challenges to tracking and disclosing buildings climate information at the time of sale. Outline opportunities to discuss with the real estate industry.	January – March 2024
Phase 2: Relationship Building Make connections and build relationships with real estate industry associations and individuals. Conduct interviews, host informal working groups and workshops to discuss opportunities and challenges.	March 2024 - ongoing
Phase 3: Data Gathering Work with industry associations and organizations to gather relevant climate risk and carbon information from buildings (e.g., Building Benchmark BC, Insurance providers). Summarize and share this information with real estate professionals.	June 2024 - ongoing
Phase 4: Advocacy Advocate to relevant government bodies for the inclusion of carbon and climate risk information buildings to be mandated to be included at the time of sale.	Ongoing

Budget	
Budget Source: TBD	
Phase 1: Research	$0
Phase 2: Relationship Building Workshops and/or working group meetings	$5,000
Phase 3: Data Gathering Access to data	$3,000
Phase 4: Advocacy	$0

☐ **Request Referral to Finance Committee**	$8,000 in 2024

Key Performance Indicators
• Number of stakeholders participating in working groups/workshops • Number of homes that disclose carbon and risk information at time of sale per year

Action 15 – Benchmark and Disclose Civic Facility Energy Use and Emissions Annually

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff are continuing to work to benchmark and disclose civic facility energy use and emissions annually. This involves data analysis, pilot program trial, consultant assistance, and ongoing documentation and data review and synthesis.

Relevant Background
The City of Port Moody owns and operates many buildings for operations, and the delivery of services within the community. The energy used at these civic facilities is responsible for 54% of the City's corporate GHG emissions. Most of this energy use is attributed to natural gas for heating and hot water in a few buildings: the Recreation Complex (42%), Westhill Centre Pool (12%), Rocky Point Park Pool (9%) and the Civic Centre (9%). Building and retrofitting civic facilities to be low carbon and resilient shows Port Moody's commitment to climate action through innovation and leadership, demonstration of technical and policy solutions, building industry capacity, creating jobs, and ensuring residents are safe and healthy in community buildings.

Action 3.2. in the Climate Ready Homes and Buildings Plan includes an action to benchmark and disclose energy use and emissions. This involves implementing a process for GHG emissions and energy benchmarking for civic buildings on an annual basis and the ongoing tracking, reporting, and disclosure of civic facility energy and emissions information.

Building Benchmark BC (BBBC) is Canada's largest voluntary benchmarking and disclosure program working to inform and inspire public and private sector leadership on built-environment climate change solutions. Building energy benchmarking is the process of collecting and monitoring energy and greenhouse gas emissions data from many buildings over time. This allows owners, managers, occupants, and jurisdictions to compare the performance of similar participating properties. With this data in hand, property owners, policy makers, incentive designers, and capital providers can funnel resources towards the best interventions, in the right buildings, to achieve the highest climate benefit.

Benchmarking is an effective tool for reducing GHG emissions in the built environment, the benefits include:

- Increase conservation behaviours and sharpen energy management practices among both occupants and owners by revealing operational energy use;
- Help property owners make more targeted and strategic capital investments;
- Promote further efficiency by improving commissioning and maintenance regimens;
- Incentivize friendly competition in the commercial real estate sector to deliver better energy performance; and
- Inform energy policy development at municipal, regional, and national governments, allowing them to better substantiate GHG targets and design more efficient programs to direct support where it is needed most.

In 2022 Port Moody joined as a pilot community under Building Benchmark BC and will use this platform to benchmark and disclose energy and emissions information publicly of city owned facilities. The initial year of the pilot is free for participating communities. Funding required to participate in future years of BBBC is unknown at this time, however, staff will present funding information to Council as it becomes available.

Additionally, since 2021, Port Moody had been working with Prism Engineering to track utility data from civic facilities, optimize energy and emissions of city-owned buildings, and to report out annually on emissions and energy data. The City, Prism Engineering, and Building Benchmark BC will work collaboratively together to achieve this project.

Project Objectives
• To implement tools for the tracking, benchmarking, and disclosure of civic facility energy and emissions data
• Track civic facility energy and emissions data on an ongoing basis

Scope	
In Scope	• Consultant assistance • Staff engagement • Data analysis • Pilot program participation • Annual reporting

Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: August 2022	**Project end date: Ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Utility Set Up Work with Prism Engineering to set up facilities on PUMA utility tracking software. Work with Building Benchmark BC to link utility information (BC Hydro and FortisBC) into Building Benchmark BC platform to benchmark and disclose.	August – November 2022 - complete
Phase 2: Pilot Benchmarking and Disclosure Port Moody will participate as a pilot community in Building Benchmark BC for an initial year. At the end of the pilot period, the City will be given the option to continue participating in the program or opt out. Staff will continue to research other benchmarking and disclosure opportunities as they arise and present options to Council.	August 2022 – August 2023
Phase 3: Ongoing Benchmarking and Disclosure Staff will continue annual tracking, reporting, benchmarking, and disclosure of civic facility energy and emissions data.	Ongoing

Budget	
Budget Source: N/A	
Phase 1: Utility Set Up	$0 - previously funded
Phase 2: Pilot Benchmarking and Disclosure Free for initial year of pilot program participation. Future costs to participate in BBBC TBD	$0
Phase 3: Ongoing Benchmarking and Disclosure	TBD in Phase 2
☐ **Request Referral to Finance Committee**	$0 in 2023

Key Performance Indicators
• Annual energy use of each civic facility (GJ/year) • Annual emissions intensity of each civic facility (GHG/m2/year)

Action 16 – Develop Business License Requirements that Support Low-Emission Ride-Hailing Services and Autonomous Vehicles (Completed)

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Robyn MacLeod, Manager of Building, Bylaws and Licensing		
Staff Lead:	Robyn MacLeod, Manager of Building, Bylaws and Licensing		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff will develop business license requirements that support low-emission ride-hailing services and autonomous vehicles in Port Moody. This project has already been completed through cross-jurisdictional collaboration.

Relevant Background

Local bylaws and requirements can have an impact on the ability and degree to which ride-hailing and autonomous vehicles operate within a jurisdiction. While autonomous vehicles have yet to be mainstreamed in society, preparing requirements and policies to support their use in the future will set Port Moody up for success.

Since 2020, the City of Vancouver has been developing business license requirements on behalf of several municipalities including Port Moody through the Ride-Hailing Inter-Municipal Business Licence (IMBL). Through this collaboration, business license requirements that support low emissions ride-hailing vehicles are already in place. Effective April 1, 2020, ride-hailing companies wishing to operate across municipalities in the Lower Mainland, may apply for a ride-hailing IMBL licence, provided they have obtained a Provincial Transportation Network Services licence. Incentives are provided for the use of zero emission vehicles.

Autonomous vehicles have not become mainstreamed in the marketplace yet and are not authorized for operation and therefore are not a priority at this time. If or when they are authorized, municipalities will coordinate and streamline requirements through one organization such as the City of Vancouver as done with low emissions ride-hailing requirements.

Project Objectives
• Perform research and review ride hailing and autonomous vehicle requirements in other jurisdictions in Canada and internationally
• Engage with staff and stakeholders to identify challenges and opportunities for future requirements
• Implement requirements that result in low emission ride hailing and autonomous vehicles, when appropriate

Scope	
In Scope	• Research and review • Staff engagement • Stakeholder engagement • Legal review
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: 2020	**Project end date: Complete**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Review other jurisdictions and international requirements that relate to low carbon ride hailing and autonomous vehicles. Review Port Moody Bylaws and requirements.	Complete
Phase 2: Staff and Stakeholder Engagement Share research and review from Phase 1 with Planning and Building teams.	Complete
Phase 3: Draft Requirements Prepare requirements and seek feedback from staff and stakeholders. Seek legal review.	Complete
Phase 4: Implement Requirements Implement and monitor requirements.	Complete - ongoing

Budget	
Budget Source: N/A	
Phase 1: Research and Review	$0
Phase 2: Staff and Stakeholder Engagement	$0
Phase 3: Draft Requirements	$0

Phase 4: Implement Requirements	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of new IMBL licenses issued that include zero emissions vehicles

Action 17 – Revise Parking Minimums and Create Parking Maximums

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Stephen Judd, Manager of Infrastructure Engineering Services		
Staff Lead:	Geoffrey Keyworth, Transportation Engineer		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to review and revise parking minimums and establish parking maximums to reduce the size and number of parking structures and associated embodied emissions from concrete and encourage lower rates of car ownership. This project involves research and review, staff engagement, and policy and bylaw updates.

Relevant Background
Port Moody is a growing community, with a population that has more than doubled over the past three decades (primarily between 1991 and 2011). New residential and commercial buildings will be needed to accommodate this growth, which presents the opportunity to build efficient, low carbon and resilient new structures. Embodied emissions from new buildings accounts for 19% of Port Moody's emissions from buildings, which will increase as a portion of total emissions without further action. Many new buildings are still being built with emissions-intensive materials and are not designed to promote sustainable lifestyle choices such as public transit. Local bylaws and requirements can have an impact on the ability and degree to which new buildings are low carbon and promote sustainable choices.

Minimum parking requirements force developers to set aside land and construction budgets to create vehicle parking for residential and commercial buildings. Revising/eliminating parking minimums and creating parking maximums re-allocates the use of that land and capital towards more housing choice and/or amenities and encourages sustainable transportation options.

This project will explore reducing/eliminating parking requirements for new buildings. This still gives developers the option to add parking if they feel it is needed but clears the way for more housing choices for residents who don't want to pay for parking and prefer cheaper, more sustainable transportation options.

Under this project staff propose to:

- Research parking requirements in other jurisdictions and review parking requirements for new developments in Port Moody;
- Engage with industry and stakeholders to inform revisions to parking requirements
- Prepare draft parking requirements and present to Council for consideration

Project Objectives
• Research parking requirements in other jurisdictions and review parking requirements for new developments in Port Moody;
• Engage with industry and stakeholders to inform revisions to parking requirements
• Prepare draft parking requirements and present to Council for consideration

Scope	
In Scope	• Research and review • Staff engagement • Stakeholder engagement • Policy and bylaw amendments • Presentation to Council
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: October 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Review other jurisdictions Bylaws and requirements that relate to parking in new developments. Review Port Moody Bylaws and requirements.	January – March 2024
Phase 2: Engagement Engage with staff to share research and draft options for revised and new requirements. Share research and requirement options with industry and seek feedback. Engage with development applicants in stream to discuss options and conduct a Council workshop.	April – June 2024

Phase 3: Draft Requirements Share research and review from Phase 1 with Planning and Building teams. Prepare draft bylaw amendments.	July- September 2024
Phase 4: Council Presentation Present summaries of Phase 1 and 3 along with draft Bylaw amendments for Council consideration.	October 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Review	$5,000
Phase 2: Engagement	$10,000
Phase 3: Draft Requirements	$30,000
Phase 4: Council Presentation Contingency	$5,000 $10,000
☐ **Request Referral to Finance Committee**	$60,000 in 2024

Key Performance Indicators
• Number of parking spaces provided per vehicle • Number of development types that have a parking minimum • Change in parking provided from current requirements vs new requirements per application

Action 18 – Advocate for Significant Policy Changes that Reduce Emissions from Transportation

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Stephen Judd, Manager of Infrastructure Engineering Services		
Staff Lead:	Geoffrey Keyworth, Transportation Engineer		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to advocate for significant policy changes at higher levels of government that reduce emissions from transportation. This project involves advocacy efforts such as a Union of BC Municipalities resolution, engagement with staff, and coordination with other municipalities.

Relevant Background
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 sources of GHG emissions; 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. Despite these initiatives and others currently underway, there is a significant gap in achieving emissions reductions from the transportation sector in Port Moody. Without policy changes at the provincial and federal scales, achieving local and provincial GHG reduction targets will remain a challenge. The 2020 Climate Action Plan includes an action to advocate for significant policy changes that reduce emissions from transportation. Under the project staff plan to: • Research and outline policy options at the local and provincial scale that will result in significant transportation sector emissions reductions • Advocate for significant policy changes that reduce emissions from transportation • Collaborate with other municipalities and organizations to support advocacy efforts

Project Objectives
• Research and outline policy options at the local and provincial scale that will result in significant transportation sector emissions reductions
• To advocate for significant policy changes that reduce emissions from transportation
• To collaborate with other municipalities and organizations to support advocacy efforts

Scope	
In Scope	• Research • UBCM resolution • Collaboration with other jurisdictions

Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: January 2023	**Project end date: March 2023 - ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Research Staff will work with the City's Transportation Committee to undertake research to understand policy options for reducing transportation emissions at the local and provincial scale. Engage with experts to understand challenges and opportunities. Reach out to other municipalities to seek collaboration.	January – March 2023
Phase 2: Submit Resolution Transportation Committee to prepare report to Council recommending resolution submission. Potential collaboration with the Climate Action Committee. Submit resolution to LMLGA and UBCM.	March 2023 - ongoing

Budget	
Budget Source: N/A	
Phase 1: Research	$0
Phase 2: Submit Resolution	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of organizations supporting advocacy messages • Number of advocacy events engaged in

Action 19 - Create Public Education Campaigns to Increase Awareness of Zero-Emission Vehicle Options

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022
Department, GM:	Kate Zanon, General Manager of Community Development
Project Manager:	Mary De Paoli, Manager of Policy Planning

Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to create public education campaigns to increase awareness of zero emissions vehicle options. This project involves working with the City's Communications and Engagement division to develop and implement the public education campaign.

Relevant Background

Transportation remains the largest source of GHG emissions in Port Moody. The latest 2018 community emissions inventory indicates that there has been approximately a 1% increase in emissions from transportation. Light and heavy-duty vehicles are the major sources of GHG emissions; 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.

The 2020 Climate Action Plan includes an action to create public education campaigns to increase awareness of zero emissions vehicle options. As a part of this project staff will:

- Perform research to understand zero emission vehicle technology, options, and preferences in BC;
- Develop a public education campaign to encourage the switch to zero emission vehicles; and
- Implement the public education campaign.

Demand for light duty electric vehicles in BC is high, currently not met by supply. The barriers to light-duty EV uptake relate to high purchase costs, lack of charging infrastructure, and lack of vehicle supply. There is less awareness and uptake of medium-heavy duty electric vehicles and therefore the scope of this work will focus on increasing the awareness and uptake of medium and heavy duty EVs.

There is potential funding to support this work through Natural Resources Canada's Zero Emission Vehicle Awareness Initiative (ZEVAI). ZEVAI supports projects that aim to increase awareness, knowledge, and public confidence in zero-emission vehicles (ZEV), low-emission vehicles and public charging and refueling infrastructure. The ZEVAI helps fund outreach, education and capacity-building activities, ultimately enabling greater adoption of ZEVs and low emission vehicles by Canadians in all regions of the country.

Project Objectives
• Perform research to understand zero emission vehicle technology, options, and preferences in BC
• Develop a public education campaign to encourage the switch to zero emission vehicles
• Implement the public education campaign

Scope	
In Scope	• Research • Communications and engagement strategy • Public engagement
Out of Scope	• Policy development

Work Plan Overview	
Project start date: Q1 2024	**Project end date: Q3 2024 - ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Research Perform research to understand zero emission vehicle technology, trends, and preferences in British Columbia.	Q1 2024
Phase 2: Develop Public Education Campaign Work with the City's Communications and Engagement division to develop a public education campaign. Seek Council endorsement of the engagement strategy.	Q2 2024
Phase 3: Implement Education Campaign Implement the public education campaign as directed by Council.	Q3 2024 – ongoing

Budget	
Budget Source: TBD	
Phase 1: Research	$0
Phase 2: Develop Public Engagement Campaign	$0
Phase 3: Implement Engagement Campaign	$10,000
☐ **Request Referral to Finance Committee**	$10,000 in 2024

Key Performance Indicators
• Number of people reached through social media per year • Number of people reached through events per year • Number of print materials handed out per year

Action 20 – Explore Creating Pedestrian Priority Zones in Key Areas

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Project Manager		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to explore the feasibility of creating pedestrian priority zones in key areas of Port Moody that will encourage sustainable and active modes of transportation and reduce GHG emissions. This project involves research, feasibility assessment, staff engagement, stakeholder and public engagement, policy creation and amendments.

Relevant Background
Pedestrian-priority zones play a prominent role in shaping a walkable, accessible, and enjoyable city. They provide places for people of all ages and abilities to use the city without competing with other modes of transportation. These spaces encourage people to move at their own pace and provide facilities that invite people to stop, stay, and spend time. They provide a space of relief in dense urban areas, activate underutilized spaces, and boost the local businesses. When lined with commercial activity and supported by high volumes of foot traffic, pedestrian-priority spaces may allow businesses access for loading and deliveries at limited times. In some cases, smaller lanes or alleys support local vehicular access at very slow speeds. Whether they are small plazas or pocket parks, narrow lanes or large shopping streets, pedestrian priority spaces operate as a part of the city's larger network of streets, parks, and public places to provide a comprehensive network of quality public open spaces, and a variety of urban experiences. Pedestrian-priority spaces offer opportunities for social interaction, active recreation, healthy living, and an improved quality of life. Pedestrian priority spaces can also provide economic stimulus. Pedestrian priority spaces can come in many shapes and forms such as: • Streets • Plazas • Laneways and alleys

- Parkettes

The 2014 Official Community Plan already identifies some pedestrian priority areas, and some work has been done as a part of the liveable streets project. This work will build off work already underway through direction under the OCP and expand areas of consideration with a climate lens.
The 2020 Climate Action Plan includes an action to explore the feasibility of creating pedestrian priority zones in key areas of Port Moody. Under this project staff will:

- Research and review case studies of pedestrian priority zones in cities nearby and internationally;
- Undertake a feasibility assessment to determine if any areas in Port Moody are suitable as pedestrian priority spaces;
- Consult staff, stakeholders, and the public based on feasibility assessment results; and
- Present recommendations for pedestrian priority zones for Council consideration.

Project Objectives
• Research and review case studies of pedestrian priority zones in cities nearby and internationally
• Undertake a feasibility assessment to determine if any areas in Port Moody are suitable as pedestrian priority spaces
• Consult staff, stakeholders, and the public based on feasibility assessment results
• Present recommendations for pedestrian priority zones for Council consideration

Scope	
In Scope	• Research and review • Feasibility assessment • Staff engagement • Stakeholder engagement • Public engagement
Out of Scope	• Policy and bylaw amendments

Work Plan Overview	
Project start date: 2024	**Project end date: 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Research to understand best practices, review and interview other municipalities, costs and implications to the City. Share research with staff and discuss challenges and opportunities.	Q1 2024
Phase 2: Feasibility Assessment Undertake a feasibility assessment to determine if any locations in Port Moody are feasible for pedestrian-priority zones.	Q2 2024
Phase 3: Pilot Engagement	Q3 2024

Develop a stakeholder and public engagement strategy to consult on areas for pedestrian priority zones and seek Council endorsement. Implement the strategy as directed by Council. Design and implement a pilot of a pedestrian priority area.	
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present options for consideration for pedestrian priority zones. Present report and attachments to Council.	Q4 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Review	$8,000
Phase 2: Feasibility Assessment	$12,000
Phase 3: Pilot Engagement Pilot project engagement	Estimated $50,000
Phase 4: Report to Council Consultant preparation of final deliverables	$5,000
☐ **Request Referral to Finance Committee**	$75,000 in 2024

Key Performance Indicators
• Number of areas identified as suitable for pedestrian priority spaces • Local business impact pre and post pilot assessment

Waste Reduction and Management

Action 21 - Develop a Zero-Waste Strategy for City Facilities and City Events

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022
Department, GM:	Anna Mathewson, General Manager of Community Services
Project Manager:	Anna Mathewson, General Manager of Community Services

Staff Lead:	Anna Mathewson, General Manager of Community Services		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to create a zero-waste strategy for city facilities and events to eliminate waste going to the landfill from city owned buildings and events. This project involves research and staff consultation to develop a pathway to achieving zero waste in all facilities and at city events.

Relevant Background

When organic waste is put into the landfill, it decomposes and produces methane, a powerful greenhouse gas that has 25 times more warming power than carbon dioxide. As a result, garbage sent to landfill in Port Moody currently leads to approximately 2,936 tonnes CO2 equivalent emissions annually (approximately 3% of all community emissions in 2018).

By diverting organic waste from the landfill, including composting our kitchen scraps and yard trimmings, recycling construction material and recycling paper products, we can reduce these emissions and generate other useful resources at the same time.

Port Moody has very high rates of waste diversion relative to other municipalities in Canada. In 2020 Port Moody achieved a 74% diversion rate, but there is still more to do to eliminate these emissions completely. The City can enhance and continue to provide appropriate receptacles and education at all City facilities and events to continue achieving greater waste diversion rates.

The 2020 Climate Action Plan includes an action to develop a zero-waste strategy for City facilities and City events. Under this project staff plan to:

- Research and review similar strategies in other jurisdictions, including policies and procedures that affect current waste operation and planning at city facilities and events;
- Consider how to reduce double and triple handling of waste (particularly as it has impacts on GHG emissions due to transportation);
- Undertake waste audits of facilities, events and in parks;
- Engage with staff in various departments who operate, work within, and host city events, parks, and facilities
- Understand population growth and increase of demand on city services to support current and future events, facilities, and parks; and
- Outline a strategy that will achieve zero waste at city owned city facilities and city events (including major events hosted at City facilities and parks).

Project Objectives

- Research and review similar strategies in other jurisdictions, including policies and procedures that affect current waste operation and planning at city facilities and events

• Consider how to reduce double and triple handling of waste (particularly as it has impacts on GHG emissions due to transportation)
• Undertake waste audits of facilities, events and in parks
• Engage with staff in various departments who operate, work within, and host city events, parks, and facilities
• Understand population growth and increase of demand on city services to support current and future events, facilities, and parks
• Outline a strategy that will achieve zero waste at city owned city facilities and city events (including major events hosted at City facilities and parks).

Scope	
In Scope	• Research and review • Consultant expertise • Staff engagement • Strategy development • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: January 2023	**Project end date: November 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Engage a consultant to lead the strategy development project. Research to understand best practices, review and interview other municipalities to learn from similar strategies.	January – March 2023
Phase 2: Staff Engagement Outline a plan to engage with staff from various departments and implement the plan. Staff engagement goal is to understand challenges and opportunities for achieving zero waste within facilities and at city events.	March – July 2023
Phase 3: Draft Strategy Based on phases 1 & 2, develop a draft strategy to meet project objectives.	July – October 2023
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present strategy for consideration that meet project objectives. Present report and attachments to Council for consideration.	November 2023

Budget	
Budget Source: Sanitation Reserve	
Phase 1: Research and Review Including inventory and baseline audits for civic facilities, events and parks Staff time for project management	 $20,000 $5,000
Phase 2: Staff Engagement Staff workshops and/or survey	$5,000
Phase 3: Draft Strategy Jurisdictional review, identification of preferred options, implementation costing, and Strategy development	$45,000
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$75,000 in 2023

Key Performance Indicators
• Waste diversion rate at city events • Waste diversion rate at city facilities

Action 22 - Develop a Community and Commercial Focused Zero Waste Strategy

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Paul Leblanc, Manager of Solid Waste, Fleet, and Shared Services		
Staff Lead:	Paul Leblanc, Manager of Solid Waste, Fleet, and Shared Services		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to create a community and commercial focused zero-waste strategy to eliminate waste going to the landfill from community and commercial buildings and events. This project involves research, public and stakeholder consultation to develop a pathway to achieving zero waste in the community.

Relevant Background
When organic waste is put into the landfill, it decomposes and produces methane, a powerful greenhouse gas that has 25 times more warming power than carbon dioxide. As a result, garbage sent to landfill in Port Moody currently leads to approximately 2,936 tonnes CO2 equivalent emissions annually (approximately 3% of all community emissions in 2018). By diverting organic waste from the landfill, including composting our kitchen scraps and yard trimmings, recycling construction material and recycling paper products, we can reduce these emissions and generate other useful resources at the same time. Port Moody has very high rates of waste diversion relative to other municipalities in Canada. In 2020 Port Moody achieved a 74% diversion rate, but there is still more to do to eliminate these emissions completely. The City can work with the community and commercial buildings to enhance and improve waste diversion rates, the reuse of materials, and climate-smart consumer choices. The 2020 Climate Action Plan includes an action to develop a community and commercial focused zero-waste strategy. Under this project staff plan to: • Research and review similar strategies in other jurisdictions, best practices in waste reuse, diversion, and consumer choice etc.; • Engage with the public and stakeholders to understand opportunities, barriers, and challenges in achieving zero waste in Port Moody; and • Outline a strategy that will achieve zero waste in the community.

Project Objectives
• Research and review similar strategies in other jurisdictions, best practices in waste reuse, diversion, and consumer choice etc.
• Engage with the public and stakeholders to understand opportunities, barriers, and challenges in achieving zero waste in Port Moody
• Outline a strategy that will achieve zero waste in the community

Scope	
In Scope	• Research and review • Consultant expertise • Staff engagement • Stakeholder engagement • Public engagement • Strategy development
Out of Scope	• Implementation of the draft strategy

Work Plan Overview	
Project start date: January 2024	**Project end date: October 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review	January – March 2024

Engage a consultant to lead the strategy development project. Research to understand best practices, review and interview other municipalities to learn from similar strategies.	
Phase 2: Engagement Outline a plan to engage with the public and stakeholders to understand opportunities and challenges to draft strategies in the plan.	March – June 2024
Phase 3: Draft Plan Based on phases 1 & 2, develop draft pathways to zero waste in the community. Draft the Plan and seek staff and stakeholder approval while incorporating public feedback.	June – September 2024
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present the draft community and commercial zero waste strategy. Present report and attachments to Council.	October 2024

Budget	
Budget Source: Sanitation Reserve	
Phase 1: Research and Review	$10,000
Phase 2: Engagement Stakeholder engagement Public engagement	 $3,000 $5,000
Phase 3: Draft Plan	$25,000
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$43,000 in 2024

Key Performance Indicators
• Total tonnes of waste sent to landfill from Port Moody annually (reported through the Provincial CEEI) • Annual community waste diversion rate

Action 23 - Work with Partner Organizations on Public Education Campaigns to Increase Awareness of Waste Reduction Tools, Programs and Information

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022
Department, GM:	Jeff Moi, General Manager of Engineering and Operations

Project Manager:	Paul Leblanc, Manager of Solid Waste, Fleet, and Shared Services		
Staff Lead:	Donna Bucsis, Solid Waste & Recycling Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to work with partner organization on public education campaigns to increase awareness of waste reduction tools, programs, and information. This project involves research, partnerships and collaboration with external organizations, and public awareness campaigns.

Relevant Background

When organic waste is put into the landfill, it decomposes and produces methane, a powerful greenhouse gas that has 25 times more warming power than carbon dioxide. As a result, garbage sent to landfill in Port Moody currently leads to approximately 2,936 tonnes CO2 equivalent emissions annually (approximately 3% of all community emissions in 2018). By diverting organic waste from the landfill, including composting our kitchen scraps and yard trimmings, recycling construction material and recycling paper products, we can reduce these emissions and generate other useful resources at the same time.

Port Moody has very high rates of waste diversion relative to other municipalities in Canada. In 2020 Port Moody achieved a 74% diversion rate, but there is still more to do to eliminate these emissions completely. The City can work with external organizations inform the public and encourage them to enhance and improve waste diversion rates, reuse materials, and be informed on climate-smart consumer choices.

Currently the City collaborates with the following organizations on waste reduction initiatives:

- RecycleBC
- Metro Vancouver
- Port Coquitlam
- Belcarra
- Anmore
- Coquitlam
- Burnaby
- Dreamrider Foundation
- Adopt a Street Program

This work is ongoing, and staff will continue to maintain and build relationships with existing and new organizations who can provide information and influence waste smart choices in the community. Additionally, staff will continue to inform the public and enhance public awareness opportunities of waste reduction information through city communication channels.

Project Objectives
• Build and maintain relationships with organizations in the waste industry
• Work with organizations to inform and educate the public on waste reduction initiatives

Scope	
In Scope	• Research and review • Staff engagement • Stakeholder engagement • Public engagement
Out of Scope	• Policy development

Work Plan Overview	
Project start date: 2023 - Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Relationship Building Identify organizations to discuss partnership and collaboration opportunities with. Build relationships and discuss overlapping waste priorities. Build out collaborative key messages and/or partake in existing waste reduction initiatives/programs as appropriate.	2023 - Ongoing
Phase 2: Ongoing Awareness and Partnership Maintain relationships with organizations and work collaboratively to inform and create awareness on an ongoing basis.	Ongoing

Budget	
Budget Source: N/A	
Phase 1: Relationships Building	$0
Phase 2: Ongoing Awareness and Partnership	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Total tonnes of waste sent to landfill from Port Moody annually (reported through the Provincial CEEI) • Annual community waste diversion rate

Action 24 – Review and Update Design Guidelines with a Climate Lens

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Kim Law, Manager of Project Delivery Services		
Staff Lead:	Project Manager		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, staff plan to review and update existing design guidelines to maximize energy efficiency and low carbon opportunities along with increasing resilience to climate change impacts for new construction. This project involves research, policy creation and amendments, staff engagement, and Council presentation.

Relevant Background

New residential and commercial buildings present a significant opportunity to build efficient, low carbon and resilient new structures. Design guidelines provide a more detailed image than the broad goals of the Official Community Plan, yet they allow greater flexibility and creativity in addressing design issues than is typically found in the Zoning Bylaw. Using design guidelines, the City can provide a comprehensive list of design features that will result in a desired outcome; reducing GHG emissions and building climate resilient structures.

Staff will work with consultants to undertake research and best practices review, engage with staff internally and from other jurisdictions to understand and suggest the most appropriate design features that meet climate objectives, including design considerations for meeting upper steps of the Energy Step Code and design strategies consistent with the updated Sustainability Report Card.

Action 1.13 in the Climate Ready Homes and Buildings Plan includes direction to update design guidelines to meet the following parameters:

- Explore existing gaps and amend existing design guidelines to include low-carbon and resilient building design and best practice.
- Review design guidelines for integration with the upper steps of the Energy Step Code and the updated Sustainability Report Card
- Thermal bridging, thermal comfort impacts on design (e.g. overheating analysis)

• Create low-carbon building design guidelines for single-family homes (small lot single-family and laneway homes). • Review design guidelines for broader updates beyond climate action

Project Objectives
• To research and explore design strategies that meet future climate needs, including interviewing other jurisdictions in Canada and internationally
• To outline design strategies that support the Sustainability Report Card, Energy Step Code, and result in low carbon and resilient buildings for Council consideration

Scope	
In Scope	• Research and jurisdictional interviews • Policy amendments • Staff engagement • Legal review • Presentation to Council
Out of Scope	• Public engagement • Consultation with industry

Work Plan Overview	
Project start date: Q2 2023	**Project end date: Q3 2023**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and interview other municipalities, costs and implications to the City and development community. Include an information session for staff on case studies that meet upper steps of the Step Code. Engage with staff via the Staff Development Review Group to understand challenges and opportunities.	Q2 2023
Phase 2: Draft Design Guidelines Based on phase 1 develop draft design guidelines to meet project objectives and seek legal review. Review current design guidelines with a climate lens. Outline information on amendments to policies/design guidelines required to meet project objectives. Seek direction on guidelines from Advisory Design Panel.	Q3 2023
Phase 3: Report to Council Prepare supporting documents, presentation, and report to Council to present options for consideration that meet project objectives. Present report and attachments to Council.	Q4 2023

Budget	
Budget Source: Waste Management Operating Reserve	
Phase 1: Research, Internal Engagement, Integration with Climate & Building Related City Projects (e.g. Energy Step Code) Project management Consultant fees	 $5,000 $10,000
Phase 2: Draft Design Guidelines Consultant fees Legal review	 $20,000 $5,000
Phase 3: Report to Council Consultant fees	 $3,000
☐ **Request Referral to Finance Committee**	$43,000 in 2023

Key Performance Indicators
• Number of applications that meet the design guidelines consistent with the Sustainability Report Card per year

Action 25 - Apply a Climate Lens to Existing Hazard Mapping and Development Permit Areas

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Jess Daniels, Policy Planner		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan and Climate Action Plan, staff plan to apply a climate lens to existing hazard mapping and Development Permit Areas to decrease the risk of impacts associated with climate change and require low carbon solutions for new developments. This project involves research, policy creation and amendments, mapping, legal review, and staff engagement.

Relevant Background

New residential and commercial buildings present a significant opportunity to build structures that are resilient to many of the impacts of climate change such as flooding, extreme heat, and wildfire smoke in addition to being low carbon and energy efficient. Port Moody's development permit areas are an effective tool to set guidelines and rules for new structures in certain areas of risk that ensure they can adapt to and recover from climate change impacts and can reduce the carbon footprint of new structures being built. Similarly, reviewing and updating hazard mapping and information will help to inform guidelines for DPAs specific to climate hazards and low carbon solutions and result in better data-driven decision making.

For development permit area purposes related to energy conservation, water conservation and greenhouse gas emissions reduction, local governments can make requirements on elements that are exterior to buildings, such as:

- Landscaping, for example, requiring drought-tolerant plantings
- Siting of buildings and other structures, for example, building orientation to capture solar energy
- Form and exterior design of buildings and other structures, for example, provision of deep overhangs for shade
- Specific features in the development, for example, naturalized ponds that capture and store rainwater runoff
- Machinery, equipment and systems external to buildings and other structures, for example, rainwater collection systems and geothermal system.

Undertaking this project will satisfy the following actions from the 2020 Climate Action Plan and the Climate Ready Homes and Buildings Plan

- 1.4. Development Permit Areas (DPAs): Explore local government authority to use DPAs to require low-embodied emissions construction and electric heating and cooling for Part 3 and Part 9 buildings. (Climate Ready Homes and Buildings Plan)
- 1.5 Hazardous lands development permit areas (DPA): Increase requirements in the hazardous lands DPA to include additional resilience requirements based on localized risks identified in climate risk assessment (e.g., cooling, filtration, and ventilation, geohazards, flood protection, FireSmart methods, drought-tolerant landscaping, and water conservation features.) (Climate Ready Homes and Buildings Plan)
- Apply a climate risk lens to a review of existing hazard mapping and associated Development Permit Areas (Climate Action Plan)

Under this project staff will:

- review the information in the bulletin below, research similar projects in other jurisdictions, and review DPA and hazard mapping currently in place. This project will be informed by City plans and projects such as:
  - Coastal Flood Management Strategy (in development)
  - Integrated Stormwater Management Plans (completed and in development)
  - Urban Forest Management Strategy (in development)
  - Community Wildfire Protection Plan (completed)
  - Green Infrastructure Policy and Program (planned for 2023)
  - Natural Asset Strategy (in development)
  - Acceleration of the Energy Step Code (planned for 2023)
  - Embodied Emissions Research and Options (planned for 2023)
- seek a legal review to confirm authority of requirements through DPAs. Staff will first refer to the legal review performed by Lidstone for the Climate Ready Homes and Buildings Plan: Development Permit Areas for Climate Action: A Guide for Energy Conservation, Water Conservation and GHG Emissions Reduction (PDF)
- Update City hazard mapping with the latest information and with a climate lens

• Propose updates to DPAs currently in place and/or new DPAs as appropriate based on research, legal review, and findings • Consult with staff and industry on draft DPA changes and incorporate feedback • Present DPA changes and updates for Council consideration

Project Objectives
• Review available information, research similar projects in other jurisdictions, and review DPA and hazard mapping currently in place
• Seek a legal review to confirm authority of requirements through DPAs
• Update City hazard mapping with the latest information and with a climate lens
• Propose updates to DPAs currently in place and/or new DPAs as appropriate
• Consult with staff and industry on draft DPA changes and incorporate feedback
• Present DPA changes and updates for Council consideration

Scope	
In Scope	• Research • Stakeholder engagement • Staff engagement • Legal review • GIS and mapping
Out of Scope	• Public engagement • Policy and bylaw amendments

Work Plan Overview	
Project start date: January 2024	**Project end date: November 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Review available information, research similar projects in other jurisdictions, and review DPA and hazard mapping currently in place in Port Moody. Share findings with staff Development Review Group and discuss challenges and opportunities.	January – March 2024
Phase 2: Legal Review and Mapping Updates Seek a legal review to confirm authority of local governments to require climate solutions through DPAs, building off legal review for Climate Ready Homes and Buildings Plan. Gather data and information to support updates to current hazard mapping.	March – May 2024
Phase 3: Draft DPA Updates Based on phases 1 & 2, develop draft updates and changes to DPAs and/or new DPAs, and OCP amendments to meet climate objectives.	May – September 2024

Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present DPA updates/OCP amendments for consideration that meet climate objectives. Present report and attachments to Council.	November 2024

Budget	
Budget Source: Development Process Reserve	
Phase 1: Research and Internal Engagement	$0
Phase 2: Legal Review and Mapping Updates Legal review	$5,000
Phase 3: Draft DPA Updates	$0
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$5,000 in 2024

Key Performance Indicators
• Number of hazardous lands development permits issued per year

Action 26 - Create and Implement a Policy to Encourage Development of Complete, Compact Communities

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Jess Daniels, Policy Planner		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to develop and implement a policy to encourage development of complete, compact communities that will lower emissions and increase community resilience. This work will involve research, staff and stakeholder engagement, and policy creation and amendments.

Relevant Background

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.

A compact, complete community offers a mix of housing to accommodate people at all stages of life, a good range of jobs, and easy access to stores and services to meet daily needs. They also provide residents with choices about how to get to, from and around their neighbourhood. Complete communities exist at different scales across the region – from small neighbourhoods to medium and large urban centres, from historic and rural communities to new developments near frequent transit.

Building complete, compact rural and urban communities in B.C. is essential for ensuring a resilient, prosperous and equitable future. Compact development reduces GHG emissions, minimizes infrastructure costs, maximizes co-benefits and provides opportunities for a resilient economic recovery. In order to meet GHG reduction targets, provincial and local governments need to centre land use as a key strategy in climate policy planning.

Under the Climate Action Charter, local governments committed to "creating complete, compact, more energy efficient rural and urban communities" (BC Climate Action Charter, 2007). The B.C. Government shares this Climate Action Charter commitment and has pledged, under CleanBC, to identify land use initiatives to meet its emissions gap. Local governments need to fulfill the shared commitment under the Climate Action Charter of "creating complete, compact energy efficient rural and urban communities," including:

- A robust review of the local and provincial policy and planning context that has inadvertently created barriers to complete, compact community development.
- Ensuring provincial transportation infrastructure policies meet shared goals for managing carbon, congestion, and cost of civic infrastructure and personal and public transportation.

The 2020 Climate Action Plan includes an action to create and implement a policy to encourage the development of complete, compact sustainable communities. Through this project staff will:

- Review best practices in complete, compact community design, similar policies in other jurisdictions and current policies in Port Moody
- Engage with staff in planning and building departments to discuss opportunities and challenges.
- Engage with stakeholders on draft policy
- Present draft policy for Council consideration

Project Objectives
• To review best practices in complete, compact community design, similar policies in other jurisdictions and current policies in Port Moody
• Engage with staff in planning and building departments to discuss opportunities and challenges. Engage with stakeholders on draft policy
• Present draft policy for Council consideration

Scope	
In Scope	• Research • Stakeholder engagement • Staff engagement • Policy creation and amendments
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Research to understand best practices, review and interview other municipalities and levels of government. Review City's current policies in place and identify opportunities.	January – March 2024
Phase 2: Draft Policy Options Based on phases 1 & 2, develop draft policy options to encourage complete, compact communities.	May – August 2024
Phase 3: Report to Council Prepare supporting documents, presentation, and report to Council to present policy options for consideration that meet project objectives. Present report and attachments to Council.	September 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Review	$0
Phase 2: Draft Policy Options Legal fees	$5,000
Phase 3: Report to Council	$0
☐ **Request Referral to Finance Committee**	$5,000 in 2024

Key Performance Indicators
• Walk score by neighbourhood per year

Action 27 - Update and Expand Existing Rezoning Policies with a Climate Lens

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Ready Home and Buildings Plan and Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Ready Homes and Buildings Plan, staff plan to update and expand existing rezoning policies to maximize energy efficiency and low carbon opportunities for new construction. This project involves research, staff and stakeholder consultation, legal review, and policy creation and amendments.

Relevant Background
New residential and commercial buildings present a significant opportunity to build efficient, low carbon and resilient new structures. Port Moody's previous early adoption of the B.C. Energy Step Code in 2020 means that buildings built today are already more energy efficient than the current B.C. Building Code. Despite these initiatives there are still gaps in achieving low carbon resilient buildings. Through the rezoning process, local governments can request and secure additional features beyond City requirements such as low carbon resilient design and construction. Action 1.2. in the Climate Ready Homes and Buildings Plan includes an action to Update and Expand Existing Rezoning Policies with the following parameters: • Short-term: Require rezoning applicants to meet more stringent GHGi targets, disclose embodied emissions, use future climate data in building design, incorporate cooling, and minimum level of filtration (i.e., MERV 13) • Long-term: Add embodied emissions performance targets for rezoning applicants. Under this project staff will:

- Research best practices and review similar policies in other jurisdictions. Review current policies in place that affect rezoning
- Engage with City building and planning staff to share research, discuss options, challenges and opportunities
- Engage with the development community on draft rezoning policy conditions
- Present a draft policy for Council consideration

The project will also satisfy the following action in the 2020 Climate Action:

- Develop and Implement a Green Buildings Rezoning Policy for Development Applications

Project Objectives
• Research best practices and review similar policies in other jurisdictions. Review current policies in place that affect rezoning
• Engage with City building and planning staff to share research, discuss options, challenges and opportunities
• Engage with the development community on draft rezoning policy conditions
• Present a draft policy for Council consideration

Scope	
In Scope	• Research • Stakeholder consultation • Staff consultation • Legal review • Policy creation and amendments
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date: 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research Research to understand best practices, review and interview other municipalities, implications to the development community. Share research and engage with staff via the Development Review Group to understand challenges and opportunities.	January – March 2024
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan and seek Council endorsement. Engage with development community to share research findings and receive feedback to inform policy options.	March – May 2024
Phase 3: Draft Policy Options	April – August 2024

Based on phases 1 & 2, develop draft policy options to meet climate objectives and seek legal review of options. Outline information on amendments to policies/new processes required for the policy.	
Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present draft policy. Present report and attachments to Council.	September 2024

Budget	
Budget Source: TBD	
Phase 1: Research	$0
Phase 2: Stakeholder Engagement Development community engagement session	$3,000
Phase 3: Draft Policy Options Legal review	$5,000
Phase 4: Report to Council	$0
☐ **Request Referral to Finance Committee**	$8,000 in 2024

Key Performance Indicators
• Number of new projects adhering to the rezoning policy per year

Emergency Response and Human Health

Action 28 - Identify and Expand Opportunities to Provide Clean/Cool Air Community Shelters

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022
Department, GM:	Kirk Heaven, Deputy Fire Chief Community Safety, Training & Emergency Management
Project Manager:	Kirk Heaven, Deputy Fire Chief Community Safety, Training & Emergency Management
Staff Lead:	Kirk Heaven, Deputy Fire Chief Community Safety, Training & Emergency Management
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from the Climate Ready Homes and Buildings Plan

Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Ready Homes and Buildings Plan, the City will continue to assess, identify, and expand opportunities to provide clean and cool air community shelters during times of extreme heat and/or poor air quality. This work will involve continually implementing, reviewing and updating the City's emergency operations policies, plans, and programs through the Emergency Operations Centre (EOC).

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

Identified in the Port Moody *Climate Action Plan* two specific goals that this project relates to:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 3.5 in the Climate Ready Homes and Buildings Plan is to identify and expand opportunities to provide clean and cool air community shelters. Through this project staff will work collaboratively across departments and with the Emergency Operations Centre (EOC) to continually assess the current capacity and usage of clean and cool air shelters, identify locations that may be suitable for additional clean/cool air shelters, and update plans, policies and procedures as appropriate to support the community and provide relief during times of extreme heat and poor air quality.

This action also helps to accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,
- Ensure continuity, minimize impacts, and adapt lifelines and their services to extreme weather,
- Integrate climate change into City and regional plans, policies, procedures, operations, and
- Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

Project Objectives

- Continually assess the current capacity and usage of clean and cool air shelters
- Identify locations that may be suitable for additional clean/cool air shelters
- Update plans, policies, and procedures as appropriate

Scope	
In Scope	• Research • Data gathering and analysis • Staff engagement • Ongoing review and update of plans, policies, and procedures
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2023	**Project end date:** March 2023 / Ongoing
Deliverable/Milestone:	*Date:*
Continual Review and Update Continuously review and update practice and procedures	Ongoing

Budget	
Budget Source: N/A	
Continual Review and Update	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of clean air shelters identified • Number of cooling shelters identified

Action 29 - Advocate for Upgrades to School Air Conditioning

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		

Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Extreme Weather Resilience Plan, the City will advocate for upgrades to school air conditioning systems. The climate action committee will assist in advocating to the to the Province through a UBCM resolution to supply funding to purchase and install cooling systems and energy efficiency upgrades in Port Moody schools. Additionally, the Climate Action Committee will advocate to change policy to require cooling in schools. Cooling systems in schools will increases community resiliency to extreme heat by providing cooling shelters when extreme heat warnings are issued for the city.

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 12 in the Extreme Weather Resilience Plan is to advocate for upgrades to school air conditioning. The climate action committee will assist in advocating to the to the Province through a Union of British Columbia Municipalities (UBCM) resolution to supply funding to purchase and install cooling systems and energy efficiency upgrades in Port Moody schools. UBCM resolutions must be endorsed by Councils and are recommended to be sent to the lower mainland local government association (LMLGA) for their consideration in March, in advance of UBCM in September.

The climate action committee will assist in advocating to the to the Province through a UBCM resolution to supply funding to purchase and install cooling systems and energy efficiency upgrades in Port Moody schools. Additionally, the Climate Action Committee will advocate to change policy to require cooling in schools. Cooling systems in schools will increases community resiliency to extreme heat by providing cooling shelters when extreme heat warnings are issued for the city.

Additionally, the Climate Action Committee will advocate to change policy to require cooling in schools. Cooling systems in schools will increases community resiliency to extreme heat by providing cooling shelters when extreme heat warnings are issued for the city.

This action helps accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,
- Ensure continuity, minimize impacts, and adapt lifelines and their services to extreme weather,
- Integrate climate change into City and regional plans, policies, procedures, operations, and
- Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

Project Objectives
• Submit a resolution to UBCM for the Province to supply funding for cooling and change policy to require cooling in schools.

Scope	
In Scope	• Research • Climate Action Committee engagement • Data gathering and analysis • UBCM resolution submission
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2023	**Project end date:** March 2023 / Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Research Climate Action Committee to undertake research to understand best practices, review and discuss communication and recommendations. Engage with experts to understand challenges and opportunities.	January – March 2023
Phase 2: Submit Resolution Climate Action Committee to prepare report to Council recommending resolution submission. Submit resolution to LMLGA and UBCM.	March 2023

Budget	
Budget Source: N/A	
Phase 1: Research and Internal Engagement	$0
Phase 2: Submit Resolution	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Council support of advocacy messages • Climate Action Committee support of advocacy messages

Action 30 - Establish 'Extreme Weather Ambassadors'

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Extreme Weather Resilience Plan, staff plan to engage, connect, and collaborate with neighbourhood groups to establish “extreme weather ambassadors”. Staff will work with these ambassadors to provide updated information through City lead workshops and train-the-trainer workshops to develop neighbourhood cooling plans by leveraging best practices already implemented in peer cities.

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 1 in the Extreme Weather Resilience Plan is to connect and collaborate with neighbourhood groups to establish 'extreme weather ambassadors' to lead resilience efforts. Staff will work with these ambassadors to provide updated information through City lead workshops and train-the-trainer workshops to develop neighbourhood cooling plans by leveraging best practices already implemented in peer cities. Once the ambassador program is established, the program will run for multiple years, courting and training new ambassadors twice a year.

This action helps accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,

• Increase education and outreach of extreme weather events and resources available to assist, • Ensure a coordinated response to and recovery from extreme weather events, and • Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

Project Objectives
• Increase collaboration and information sharing with neighbourhood groups to ensure all members of the community are supported during extreme weather events.
• Prepare ambassadors to act as a leader in the community by training ambassadors to disseminate information and resources to all members of the community

Scope	
In Scope	• Research • Staff engagement • External stakeholder engagement • Consultation with peer municipalities • Consultant assistance to develop and present workshops and content • Council presentation
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2023	**Project end date:** June 2023 - Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Research, Internal Engagement and Procure Consultant Research to understand best practices, review and interview other municipalities, costs and implications to the City and stakeholders. Engage with staff to understand challenges and opportunities. Procure a consultant to develop workshops and program information.	January – March 2023
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan and seek Council endorsement. Engage with industry experts (1 meeting), health authorities (1 meeting) and neighbourhood groups (3-4 meetings) to share research findings and receive feedback to inform options.	March – July 2023
Phase 3: Develop and Implement Workshops Based on phases 1 & 2, develop: • Develop train-the-trainer program including presentations, messaging, content, materials for ambassadors to distribute. • Framework for train-the-trainer workshops to train “ambassadors” to meet project objectives; and • Holding train-the-trainer workshops (estimated 4 workshops)	July – October 2023

Phase 4: Report to Council Prepare supporting documents, presentation, and report to Council to present outcomes of workshops. Present report and attachments to Council. Pending Council endorsement ambassadors will be leveraged for the following action "Develop a social network to check on vulnerable populations during extreme weather events" to be initiated in 2024.	November 2023 - ongoing

Budget	
Budget Source: Climate Action Implementation Reserve	
Phase 1 – 4 Consultant Contract Neighbourhood & stakeholder meetings (6 meetings) Materials • Onboarding ambassadors • Ambassadors to distribute to neighbourhoods • Presentations Workshops • Workshop framework and design • Workshop materials (presentation, speakers etc.) • Workshop administration (supplies, refreshments, etc.) • Conducting the training (4 workshops) There is potential funding of up to $25,000 through the United Way BC's emergency preparedness and response grant to support this action.	$4,500 $10,000 $15,000
☐ **Request Referral to Finance Committee**	$29,500 in 2023

Key Performance Indicators
• Number of extreme weather ambassadors registered per year

Action 31 - Develop a Registry of Vulnerable Populations

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022
Department, GM:	Kate Zanon, General Manager of Community Development
Project Manager:	Mary De Paoli, Manager of Policy Planning
Staff Lead:	Student project – Managed by Arzan Balsara, Sustainability and Energy Coordinator
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan

Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Extreme Weather Resilience Plan, staff plan to develop a registry of vulnerable populations within the city. This will be valuable to determine type, quantity and location of support and resources during extreme weather events.

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 2 and 15 in the Extreme Weather Resilience Plan is to Develop a registry of vulnerable populations and a social network to check on them during extreme weather events. This database will be leveraged to create a social network within the community linked to vulnerable populations so that they can be better supported through partnerships with community associations and health authorities.

This action helps accomplish 5 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,
- Increase education and outreach of extreme weather events and resources available to assist,
- Integrate climate change into City and regional plans, policies, procedures, operations,
- Ensure a coordinated response to and recovery from extreme weather events, and
- Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

This action is anticipated to be completed by a summer student who will also be working to identify oil and propane heated buildings in the community (Action 6). Funding for this student is represented in the budget for the oil and propane identification project.

Project Objectives

- Develop a database of vulnerable populations.
- Work with health authorities and neighbourhood groups to create a social network to check on vulnerable populations during extreme weather events.

Scope	
In Scope	• Research • Data gathering and analysis • Staff engagement • External stakeholder engagement • Grant applications • Council presentation
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: May 2023	**Project end date:** August 2023 - Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and interview neighbourhood groups. Engage with staff to understand challenges and opportunities.	May 2023
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan. Engage with industry experts, health authorities and neighbourhood groups to share research findings and receive feedback to inform database and social networks.	June/July 2023
Phase 3: Develop Database and Social Network Based on phases 1 & 2, develop the database, social network and operating structure in collaboration with interested stakeholder groups.	August 2023

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1: Research and Internal Engagement *Costs for hiring a student to undertake all phases of work are included in the budget for the oil and propane building identification project.	$0*
Phase 2: Stakeholder Engagement Community Association sessions Stakeholder session	$6,000
Phase 3: Develop Database and Social Network Maintaining information, access to data, software integration, mapping Maintaining contact list for social networks, regular communication, and outreach	$3,000
☐ **Request Referral to Finance Committee**	$9,000 in 2023

Key Performance Indicators
• Number of vulnerable populations identified per year • Number of social networks established per year • Number of regular communications with social networks per year

Action 32 - Work with Utility Companies to Prioritize Restoration of Power to Lifelines and Vulnerable Populations

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Extreme Weather Resilience Plan, staff plan to work with utility companies to prioritize restoration of power to lifelines and vulnerable populations. This work will build off the project in 2023 to develop a registry of vulnerable populations. This work will involve building a relationship with utility providers, staff engagement, and information gathering and sharing.

Relevant Background
The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability. A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals: • Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts. • Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 14 in the Extreme Weather Resilience Plan is to work with utility companies to prioritize restoration of power to lifelines and vulnerable populations. Through this process, the following will be considered:

1. Identify the points of contact and set up a meeting
2. Assemble spatial inventories and attributes of lifelines and vulnerable populations
3. Perform criticality analysis/prioritization for power restoration

Project Objectives
• Build relationships with utility companies responsible for power restoration
• Coordinate with utility companies to develop policies and procedures for the restoration of power to lifelines and vulnerable populations during outages in Port Moody

Scope	
In Scope	• Staff engagement • Communication and coordination with external organizations • Procedure and policy updates • Data gathering and sharing
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: Q1 2024	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Internal Engagement & Utility Coordination Engage staff to determine facilities/infrastructure requirements and priorities, review and discuss communication and recommendations, critical lifelines, and identify vulnerable populations. Engage with utility companies to understand challenges and coordinate restoration of power. Share data between utilities and the City.	Q1– Q2 2024
Phase 2: Ongoing Communication Ongoing communication with utility companies to understand challenges and modify priority facilities, infrastructure, and policies/procedures as required.	Q2 2024 - ongoing

Budget	
Budget Source: N/A	
Phase 1: Internal Engagement & Utility Coordination	$0

Phase 2: Ongoing Communication	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Key contacts from utilities identified • Agreement of prioritized power restoration

Action 33 - Engage Strata Councils and Large Building Management Companies

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Extreme Weather Resilience Plan, staff plan to engage strata councils and large building management companies to integrate extreme weather event emergencies in their plans and communication.

Relevant Background
The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability. A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals: • Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.

- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 16 in the Extreme Weather Resilience Plan is to engage strata councils and large building management companies to integrate extreme weather event emergencies in their plans and communication. Staff will research and prepare best practices documents for how to integrate climate hazard information into Strata and building management operations and engage with these groups to share this information, encourage them to follow best practices, and connect Stratas and building management companies to necessary resources.

This action helps accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,
- Increase education and outreach of extreme weather events and resources available to assist,
- Ensure a coordinated response to and recovery from extreme weather events, and
- Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

Project Objectives
• Build a relationship with Strata Council and large building management companies.
• Develop materials, measures, and supporting documents for outreach specific to stratas and property management companies.

Scope	
In Scope	• Research • Communication material development • Staff engagement • Stakeholder engagement
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date:** June 2024 - Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Research and Internal Engagement Research to understand best practices, review and interview other municipalities, understand existing contact and relationships. Engage with staff to understand challenges and opportunities.	January – March 2024
Phase 2: Stakeholder Engagement Develop a stakeholder engagement plan. Engage with industry experts, strata councils, and large building management companies to share research findings and receive feedback to inform measures.	March – May 2024
Phase 3: Develop measures and share with Strata councils and building management companies	May – June 2024 - ongoing

Based on phases 1 & 2, develop and share measures with strata councils and building management companies. Ongoing conversations with stratas and building management companies will take place as needed.	

Budget	
Budget Source: TBD	
Phase 1: Research and Internal Engagement	$0
Phase 2: Stakeholder Engagement Strata session Building management session	$6,500
Phase 3: Develop measures and share with Strata councils and building management companies Printing and material design Outreach	$3,500
☐ **Request Referral to Finance Committee**	$10,000 in 2024

Key Performance Indicators
• Number of stratas' engaged with per year • Number of large building management companies engaged with per year

Action 34 – Develop a Plan to Ensure City Departments are Adequately Staffed and Equipped to Respond to Extreme Weather Events

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		

Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to develop a plan that ensures city departments will be adequately staffed and equipped to respond to extreme weather events. This project involves research and review, staff engagement, and strategy development.

Relevant Background
The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability. A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals: • Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts. • Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat. Under this project staff propose to hire a consultant to work with the Emergency Operations Centre and various departments to outline a strategy to ensure that all necessary city departments are equipped and ready to respond to extreme weather events now and in the future. This will include researching best practices, engaging with staff and stakeholders as necessary, assessing the current state of the City to respond and recover, and drafting a strategy with recommendations for Council consideration.

Project Objectives
• Work with a consultant to research and review similar strategies and plans in other jurisdictions
• Review and assess the current state and ability of city departments to respond and recover from extreme weather events
• Develop a strategy with specific actions for departments and divisions that will ensure they are prepare for and able to recover from extreme weather events

Scope	
In Scope	• Research and review • Staff engagement • Stakeholder engagement (optional) • Policy and document updates • Presentation to Council
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: January 2024	**Project end date:** October 2024
Deliverable/Milestone:	*Date:*
Phase 1: Research and Review Review other jurisdictions policies that relate to municipal extreme weather preparedness, funding, capacity and resources. Review Port Moody departments current state and ability to respond and recover.	January – April 2024
Phase 2: Staff Engagement Share research and review from Phase 1 with the Emergency Operations Centre, relevant staff divisions and any stakeholders as needed. Consult with staff to learn about challenges and opportunities. Seek feedback on draft recommendations.	April – June 2024
Phase 3: Draft Strategy Based on phases 1 and 2, draft recommendations and strategies to ensure that city departments are adequately staffed and equipped to respond to and recover from extreme weather events	June – September 2024
Phase 4: Council Presentation Present summaries of Phase 1 to3 along with the draft strategy for Council consideration.	October 2024

Budget	
Budget Source: TBD	
Phase 1: Research and Review	$8,000
Phase 2: Staff Engagement	$6,500
Phase 3: Draft Strategy	$12,000
Phase 4: Council Presentation	$800
☐ **Request Referral to Finance Committee**	$27,300 in 2024

Key Performance Indicators
• Number of tasking numbers created per year • Number of calls per year related to extreme weather

Action 35 - Increase Tri-Cities Collaboration and Coordination to Extreme Weather

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Laura Sampliner, Senior Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Extreme Weather Resilience Plan, staff plan to increase tri-cities collaboration and coordination to extreme weather. This project builds off existing relationships and sub-regional coordination currently underway related to climate action.

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 3 in the Extreme Weather Resilience Plan is to increase tri-cities collaboration and coordination to extreme weather. Through this process the following will be considered:

1. Identify an 'extreme heat' liaison from each of the cities to meet regularly
2. Integrate and expand extreme heat planning already started in the Tri-Cities Extreme Weather Plan
3. Work with the Tri-Cities Housing and Homelessness Task Force on extreme heat, including opening centers during events
4. Work with the Tri-Cities Healthier Communities Partnership Table (Fraser Health) and increase collaboration on climate change and extreme events across the sub-region

This action helps accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather,

- Increase education and outreach of extreme weather events and resources available to assist,
- Ensure a coordinated response to and recovery from extreme weather events, and
- Implement solutions to adapt to the changing climate while not increasing greenhouse gas emissions.

Project Objectives
• Identify an 'extreme heat' liaison from each of the cities to meet regularly
• Integrate and expand extreme heat planning already started in the Tri-Cities Extreme Weather Plan
• Work with the Tri-Cities Housing and Homelessness Task Force on extreme heat, including opening centers during events
• Work with the Tri-Cities Healthier Communities Partnership Table (Fraser Health) and increase collaboration on climate change and extreme events across the sub-region

Scope	
In Scope	• Research • Regular meetings and communication • Cross-jurisdiction collaboration • Stakeholder engagement (community groups, health authorities) • Staff engagement
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Continue and Enhance Collaboration Continue regular meetings once every two months with climate action staff at each tri-city municipality. Convene additional ad hoc meetings as needed. Invite and collaborate with tri-city staff in other departments as needed (e.g., fire rescue, emergency operations centre, operations, environment and parks etc.) or stakeholders (e.g., community groups, health authorities etc.)	Ongoing

Budget	
Budget Source: N/A	
Continue and Enhance Collaboration	$0
☐ **Request Referral to Finance Committee**	$0 in 2023

Key Performance Indicators
• Number of tri-cities meetings per year • Number of staff participating in tri-city meeting per year

Action 36 - Enhance Extreme Weather Event Awareness, Preparedness, and Increase Education to Residents

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Kate Zanon, General Manager of Community Development		
Project Manager:	Mary De Paoli, Manager of Policy Planning		
Staff Lead:	Arzan Balsara, Sustainability and Energy Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Extreme Weather Resilience Plan, staff plan to enhance extreme weather event awareness, preparedness, and increase education to residents. This project involves building off existing communication materials, communication channels, and information campaigns to expand and enhance messaging and outreach potential.

Relevant Background
The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability. A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals: • Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts. • Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 4 in the Extreme Weather Resilience Plan is to enhance extreme weather event awareness, preparedness, and increase education to residents. Through this process the following will be considered:

1. City Planning and Emergency Management to continue meeting to identify gaps and resources
2. Evaluate current communication and outreach methods (content and distribution) to determine a path to expand audience and reach vulnerable populations identified in the registry (to be developed through action 31)
3. Work with the City's communications team to develop and implement a community-wide communications plan

This action helps accomplish 4 out of 6 goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather
- Increase education and outreach of extreme weather events and resources available to assist
- Ensure a coordinated response to and recovery from extreme weather events

Project Objectives
• City Planning and Emergency Management to continue meeting to identify gaps and resources
• Evaluate current communication and outreach methods (content and distribution) to determine a path to expand audience and reach vulnerable populations identified in the registry (to be developed through action 31)
• Work with the City's communications team to develop and implement a community-wide communications plan

Scope	
In Scope	• Research • Communications plan • Public outreach • Staff engagement
Out of Scope	• Policy development

Work Plan Overview	
Project start date: 2023 - Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Develop Awareness Strategies Staff in various departments involved in extreme weather awareness and preparation will meet with Communications staff to discuss current awareness and education initiatives. Perform research on effective extreme weather messaging and communication tactics. Staff will determine appropriate messaging and outreach channels and package together in an extreme weather awareness strategy.	Ongoing
Phase 2: Implement Awareness Strategies	Ongoing

Implement the awareness strategy on an ongoing basis. Update messaging and outreach channels as appropriate.	

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1: Develop Awareness Strategies	$0
Phase 2: Implement Awareness Strategies	$5,000
☐ **Request Referral to Finance Committee**	$5,000 in 2023 and ongoing

Key Performance Indicators

- Number of people reached through communication channels

Action 37 - Continue Guidance for City Staff Outdoor Workers During Extreme Weather Events

Climate Action Project Classification

Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Angie Parnell, General Manager of Corporate Services		
Project Manager:	Catherine Guerin, Learning and Wellness Advisor		
Staff Lead:	Catherin Guerin, Learning and Wellness Advisor		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action from Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Extreme Weather Resilience Plan, staff plan to review Occupational Health & Safety requirements for City workers impacted operationally during extreme weather events on an ongoing basis. This may involve reviewing existing OHS and WorkSafeBC regulations, engaging with applicable City departments, reviewing and possibly developing additional Safe Work Procedures or guidelines, where appropriate.

Relevant Background

The climate is changing, resulting in more frequent and extreme weather events. The City of Port Moody is already experiencing these extreme weather events and their associated impacts. Over time, climate change will become more prominent in many aspects of our lives and the environment around us. Actions today will shape how people adapt, and nature responds to increasing climate risks. Therefore, the City must be prepared for, be able to respond to these impacts, and adapt to these changes in order to ensure public safety, health, and livability.

A specific action identified in the Port Moody *Climate Action Plan* is to develop an extreme weather resilience plan to meet two specific goals:

- Ensure all members of the community have equal access to information, support, and resources related to preparing for climate change impacts.
- Ensure the City is ready to respond to climate-related hazards, such as flooding, wildfires, and extreme heat.

Action 11 in the Extreme Weather Resilience Plan is to continue guidance for City outdoor workers During Extreme Weather Events. This action helps accomplish all the goals developed for the Extreme Weather Resilience Plan:

- Protect life and minimize health and safety risks from extreme weather;
- Ensure continuity, minimize impacts, and adapt lifelines and their services to extreme weather;
- Integrate climate change into City and regional plans, policies, procedures, operations;
- Ensure a coordinated response to and recovery from extreme weather events; and
- Implement solutions to adapt to the changing climate while not increasing GHG emissions.

The project will include reviewing existing OHS and WorkSafeBC regulations, engaging with applicable City departments, reviewing and possibly developing additional Safe Work Procedures or guidelines, where appropriate, and guidelines for the following extreme weather events:

- Long dry spells
- Extreme heat
- Extreme cold
- Extreme precipitation (rain and snow)
- Coastal storms (including wind and storm surge)

Project Objectives
• Review relevant WorksafeBC regulations to review current guidance
• Carry out departmental impact analysis for each weather condition
• Consult with various City departments ongoing as needed
• Review and update guidelines for City outdoor workers for extreme weather events as appropriate

Scope

In Scope	• Carry out departmental impact analysis for each weather condition • Review current relevant WorkSafeBC regulations • Consult with internal City departments for Risk Assessments • Implementation of recommendations stemming from Risk Assessments (development or updating of City safe work procedures)
Out of Scope	• Public outreach

Work Plan Overview	
Project start date: 2023 - Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Research and Risk Assessment Research to understand best practices in other jurisdictions, review WorkSafeBC and Health Authority guidance and documents. Undertake a risk assessment of outdoor worker positions to understand challenges and opportunities as needed.	Ongoing
Phase 2: Program and Procedure Development Based on findings from research and the risk assessments, develop a program and procedure to minimize risk, support, and adapt to the needs of outdoor workers.	Ongoing
Phase 3: City Staff Communication Share and communicate program and procedure changes with city staff who work outdoors.	Ongoing
Phase 4: Implementation Work with city outdoor workers as needed to implement the program and procedures and adjust as necessary.	Ongoing

Budget	
Budget Source: N/A	
Phase 1: Research and Risk Assessment	$0
Phase 2: Program and Procedure Development	$0
Phase 3: City Staff Communication	$0
Phase 4: Implementation	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of weather-related incidents reported on blue forms annually • Evaluate how many safe work procedures mention or relate to weather events annually

Infrastructure

Action 38 - Develop a Plan for Water Metering in Port Moody

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Stephen Judd, Manager of Infrastructure Engineering Services		
Staff Lead:	Devon Brownlee, Infrastructure Engineer		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan and Climate Ready Homes and Buildings Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan and Climate Ready Homes and Buildings Plan, staff plan to develop a plan that will work towards universal water metering in Port Moody. This project involves research and review, staff and public engagement, and program outline.

Relevant Background
Water metering is recognized as a best practice by the BC Water and Waste Association, the Federation of Canadian Municipalities, the American Water Works Association, and the Canadian Water and Wastewater Association. Residential water metering contributes to achieving water conservation goals, improves billing equity, helps with leak detection and reduction, and helps with planning and managing of water systems. In North America and around the world, including within the lower mainland, many local governments have implemented residential water metering to measure the volume of drinking water used by their residents. Cities such as Calgary, Toronto, and New York have had varying levels of residential

water metering for many decades, and in recent years have successfully transitioned to universal metering. The City of Seattle and the City of Portland have been universally metered since the 1920s.

Metro Vancouver supports water metering as a best management practice and encourages local governments in the region to move towards universal metering and has produced a Best Practices Guide for Local Governments for Residential Water Metering. Generally, all industrial, commercial, and institutional water users are fully metered throughout the lower mainland.

Many local governments in the lower mainland have residential water metering programs currently in place such as the City of Richmond, the City of Surrey, the City of Vancouver, the District of West Vancouver, the City of Abbotsford, the District of Mission. These programs vary in scope and concentration, and each consists of a different combination of metering program approaches.

Action 2.4 in the Climate Ready Homes and Building includes an action to develop a plan to work towards a consumption-based billing structure for potable water and universal water metering. The Climate Action Plan includes an action to work towards a plan for the City's approach water usage metering to address equitable billing, accurate measurement of water consumption, asset management and water conservation through a phased program.

Under this project staff propose to:

- Perform research and review water metering programs in other municipalities. Review City Bylaws and policies that affect water metering
- Undertake a pilot study to gather data on residential water use
- Engage staff and residents on a potential water metering program and consumption-based billing
- Outline a plan to move towards water metering for residential properties in Port Moody and present this Plan for Council consideration

Project Objectives
• Perform research and review water metering programs in other municipalities. Review City Bylaws and policies that affect water metering
• Evaluate Operations requirements to read, and maintain increased number of water meters
• Undertake a pilot study to gather data on residential water
• Engage staff and residents on a potential water metering program and consumption-based billing
• Outline a plan to move towards universal water metering in Port Moody and present this Plan for Council consideration

Scope	
In Scope	• Research and review • Staff engagement • Pilot program • Program development • Public engagement • Presentation to Council

Out of Scope	• Policy and bylaw amendments

Work Plan Overview	
Project start date: January 2023	**Project end date: February 2024**
Deliverable/Milestone:	*Date:*
Phase 1: Research and Pilot Review other jurisdictions Bylaws and requirements that relate to universal metering. Review Port Moody Bylaws and requirements. Initiate a metering pilot on select properties in Port Moody and consideration of resources and tools required to implement universal metering.	January 2023– June 2023 Pilot April 2023 – September 2023
Phase 2: Engagement Engage with staff, stakeholders and the public regarding universal water metering and consumption-based billing.	June – September 2023
Phase 4: Draft Water Metering Plan Based on phases 1 and 2 develop a recommended plan for universal water metering and consumption-based billing for residential properties.	September – December 2023
Phase 4: Council Presentation Present summaries of Phase 1 to 4 along with the draft water metering plan for Council consideration.	December 2023 - February 2024

Budget	
Budget Source: N/A	
Universal Water Metering Phases 1-4 Previously funded through the Engineering Capital budget (OWT19026 $50,000 & WT22007 $120,000 = $170,000)	$0
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Total cost of water per year • Number of water meters installed/replaced by property type (ICI, residential)

Action 39 - Implement Effective Utility Management Principles

Climate Action Project Classification

Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Jeff Little, Manager of Operations		
Staff Lead:	Jeff Little, Manager of Operations		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to implement effective utility management principles in daily operations to reduce consumption of potable water and improve the efficiency of the utility system. This project involves research and review, staff engagement,

Relevant Background

More frequent extreme events will require a rethink of maintenance schedules and asset management in general, as durability will be challenged. Managing both traditional and natural assets with a climate lens will ensure that investments will be functional throughout their lifespans. Climate change may also require variations to infrastructure investment to deal with specific impacts. The BC Climate Risk Assessment identified drinking water shortages as a top risk as summer drought becomes the norm. Water conservation and finding ways to reuse and recycle water will spur innovation.

Implementing effective utility management principles will help achieve excellence in utility performance in the face of everyday challenges and long-term needs for the utility and the community it serves. This involves assessing, managing, and measuring a utility's performance to address opportunities and challenges such as climate change.

Attributes of effectively managed utility include:

- Product quality
- Customer satisfaction
- Stakeholder understanding and support
- Financial viability
- Operational optimization
- Enterprise resiliency
- Employee and leadership development
- Infrastructure strategy and performance
- Community sustainability
- Water resource sustainability

The 2020 Climate Action Plan includes an action to Implement effective utility management principles for the management of the water distribution and wastewater systems (e.g., effective utility management principles).

Under this project staff propose to:

- Review and incorporate the ten attributes of effectively managed water sector utilities into operation
- Review and implement proven approaches help utilities maximize their resources and improve performance. By embedding the Five Keys to Management Success into their workplace culture, utilities create a robust foundation for strong, ongoing performance in the Ten Attribute areas
- Undertake an assessment using the Self-Assessment tool. Use the tool to evaluate operations and identify where to begin improvement efforts. By assessing how a utility performs relative to the Attributes, utility managers can gain a more balanced and comprehensive picture of their organization
- Focus on an overall continual improvement cycle (the "EUM cycle"), and use self-assessment results to lead into a cycle of planning, implementation of effective practices, measuring performance, and adjusting over time

Project Objectives
• Review and incorporate the ten attributes of effectively managed water sector utilities into operation
• Review and implement proven approaches help utilities maximize their resources and improve performance. By embedding the Five Keys to Management Success into their workplace culture, utilities create a robust foundation for strong, ongoing performance in the Ten Attribute areas
• Undertake an assessment using the Self-Assessment tool. Use the tool to evaluate operations and identify where to begin improvement efforts. By assessing how a utility performs relative to the Attributes, utility managers can gain a more balanced and comprehensive picture of their organization
• Focus on an overall continual improvement cycle (the "EUM cycle"), and use self-assessment results to lead into a cycle of planning, implementation of effective practices, measuring performance, and adjusting over time

Scope	
In Scope	• Research and review • Staff engagement • Program development • Procedure development
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: Q1 2024	**Project end date:** October 2024 - Ongoing
Deliverable/Milestone:	*Date:*

Phase 1: Review Attributes Review and incorporate the ten attributes of effectively managed water sector utilities into operation as referenced by the American Water Works Association regarding the Effective Utility Management Program.	January – April 2024
Phase 2: Review and Research Recommended Approaches Review proven approaches to help utilities maximize their resources and improve performance. By embedding the Five Keys to Management Success into workplace culture, utilities create a robust foundation for strong, ongoing performance in the Ten Attribute areas. Outline recommended approaches for Port Moody and review with staff.	April – July 2024
Phase 3: Self-Assessment Undertake an assessment using the Self-Assessment tool. Use the tool to evaluate operations and identify where to begin improvement efforts. By assessing how a utility performs relative to the Attributes, utility managers can gain a more balanced and comprehensive picture of their organization.	July – September 2024
Phase 4: Implementation Use implementation as a central connecting point between multiple elements of Effective Utility Management. Focus on an overall continual improvement cycle (the "EUM cycle") and use self-assessment results to lead into a cycle of planning, implementation of effective practices, measuring performance, and adjusting over time. This phase may include the following components: 1. A description of the essential components of the EUM cycle; 2. A guide for measuring performance; 3. Resources to support Effective Utility Management implementation; and 4. Steps for creating an Improvement Plan.	October 2024 - ongoing

Budget	
Budget Source: TBD	
Phase 1: Review Attributes Estimated project management support	$20,000
Phase 2: Review and Research Recommended Approaches	$TBD
Phase 3: Self-Assessment	$TBD
Phase 4: Implementation	$TBD
☐ **Request Referral to Finance Committee**	$20,000 in 2024

Key Performance Indicators
• Dollars spent on maintenance of utility system per year

Action 40 - Develop a Green Infrastructure Strategy

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Kim Law, Manager of Project Delivery Services		
Staff Lead:	Project Manager		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan and Extreme Weather Resilience Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan and Extreme Weather Resilience Plan, staff plan to develop and implement a green infrastructure strategy to strategically increase and manage green infrastructure in the community. This project involves research and review, staff engagement, and policy creation and updates.

Relevant Background
Green infrastructure (GI) is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. Green infrastructure provides many environmental, social, and economic benefits and is becoming an increasingly important concept of nature-based climate solutions. Introducing green infrastructure to supplement the existing gray infrastructure can promote urban livability and add to communities' bottom line. Local policy, bylaws and requirements can have an impact on the ability and degree to which green infrastructure can be installed and maintained. Under this project staff propose to: • Perform research and review green infrastructure policies and programs in other jurisdictions • Identify areas where green infrastructure is needed • Identify sustained funding models to manage and maintain green infrastructure • Develop policy, bylaws, standards, and outreach material • Use and build off municipal natural assets initiative (MNAI) information and resources • Develop an implementation plan

- Explore Collaborate and partnerships opportunities
- Review City Bylaws, policies, and programs that may affect the installation and maintenance of green infrastructure
- Engage with Port Moody staff to understand challenges and opportunities
- Propose a green infrastructure strategy for Council consideration

The Natural Asset Management inventory and policy work already underway at the City will feed into this program and strategy with a focus on enhanced assets and engineered assets to complement natural asset work already underway. A staff working group will be formed to ensure cross-departmental collaboration and integration of various related projects.

This work will build off:

- Integrated stormwater management plans (ISMPs) (ISMPs for the north shore will be completed early 2023)
- Moody centre drainage study (2019)
- Urban forest management strategy (in development)
- Natural asset management strategy (in development)
- Environmental sensitive areas strategy (1999)

The GI Strategy will be completed in a phased approach.

Phase 1: Internal Capacity Building and Bridging Approach

- Establish an internal green infrastructure task force
- identifying challenges and opportunities (gap or SWOT analysis/needs assessment)
- inventory of existing green infrastructure (update mapping done for natural asset management strategy)
- identify concurrent initiatives that will feed into overall strategy
- Identify and review relevant policies, bylaws, strategy, and research
- Pilot green infrastructure installations on St. Johns Street
- Establish an interim bridging approach to harness current and upcoming opportunities, including identifying roles and responsibilities, in absence of broader green infrastructure direction and policy that will come forward in the future
    - Identify grants to support future phases of this project
    - Amendments to Servicing Bylaw for green infrastructure
    - Green infrastructure standards and guidelines for developments

Phase 2: Strategy/Program

Identifying solutions for challenges (e.g., policy to guide development, capital projects, residents, etc.). Summarized into a report.

- How concurrent initiatives feed into the green infrastructure strategy
- Prioritization of actions
- Clear framework that identifies how goals/objectives will be achieved
- GI Policy recommendations
- Equity considerations
- Identify additional pilot areas
- Identify partnerships and grant opportunities (e.g., educational institutions, First Nations, etc.)

Phase 3: Implementation and Monitoring

- Identify sustained funding mechanisms
- Implement a GI pilot in identified area(s)
- Integrate into city processes (i.e., maintenance connection, GIS etc.)
- Develop and implement a monitoring program

There is potential external funding to support this project of up to $10,000 from the Local Government Infrastructure Planning Grant Program.

Project Objectives
• Perform research and review green infrastructure policies and programs in other jurisdictions
• Review City Bylaws, policies, and programs that may affect the installation and maintenance of green infrastructure
• Engage with Port Moody staff to understand challenges and opportunities
• Develop and implement a bridging strategy
• Propose a green infrastructure strategy for Council consideration

Scope	
In Scope	• Research and review • Staff engagement • Policy and bylaw amendments/creation • Presentation to Council
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: January 2023	**Project end date:** 2024 - ongoing
Deliverable/Milestone:	*Date:*
Phase 1: Internal Capacity Building and Bridging Approach • Establish an internal green infrastructure task force • identifying challenges and opportunities (gap or SWOT analysis/needs assessment) • inventory of existing green infrastructure (update mapping done for natural asset management strategy) • identify concurrent initiatives that will feed into overall strategy • Identify and review relevant policies, bylaws, strategy, and research • Pilot green infrastructure installations on St. Johns Street	January - December 2023

• Establish an interim bridging approach to harness current and upcoming opportunities, including identifying roles and responsibilities, in absence of broader green infrastructure direction and policy that will come forward in the future ○ Identify grants to support future phases of this project ○ Amendments to Servicing Bylaw for green infrastructure ○ Green infrastructure standards and guidelines for developments	
Phase 2: Strategy/Program identifying solutions for challenges (e.g., policy to guide development, capital projects, residents, etc.). Summarized into a report. • How concurrent initiatives feed into the green infrastructure strategy • Prioritization of actions • Clear framework that identifies how goals/objectives will be achieved • GI Policy recommendations • Equity considerations • Identify additional pilot areas • Identify partnerships and grant opportunities (e.g., educational institutions, First Nations, etc.)	January 2024 – December 2024
Phase 3: Implementation and Monitoring • Identify sustained funding mechanisms • Implement a GI pilot in identified area(s) • Integrate into city processes (i.e., maintenance connection, GIS etc.) • Develop and implement a monitoring program	2024 - ongoing

Budget	
Budget Source: Drainage Reserve	
Phase 1: Internal Capacity Building and Bridging Approach Bridging strategy (including project management fees) St. Johns Street GI Pilot	2023 $75,000 (Drainage Reserve) $200,000 (Drainage Reserve)
Phase 2: Strategy/Program Project Management Consultant fees	2024 $10,000 (Drainage Reserve) - TBC $40,000 (Drainage Reserve) - TBC
Phase 3: Implementation and Monitoring	$TBD in phase 2
☐ **Request Referral to Finance Committee**	$275,000 in 2023

Key Performance Indicators
• Number of green infrastructure (GI) installed per year • Number of GI areas identified • Number of developments to install GI per year

Action 41 - Incorporate Climate Change Considerations into the City's Water Distribution and Wastewater Collections Systems

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Jeff Little, Manager of Operations		
Staff Lead:	Jeff Little, Manager of Operations		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to incorporate climate change considerations into the City's water distribution and wastewater collection systems. This project involves research and review, staff engagement, and policy and procedure updates as needed.

Relevant Background
The current practice is to design infrastructure based on historical climate patterns that have no bearing on future patterns. A sewer pipe or culvert may be right sized for historical rainfall patterns that fall nowhere near the intensity or frequency of rainfall anticipated in the decades to come with a changing climate. More frequent and intense extreme events will also require a rethink of maintenance schedules and asset management in general, as durability will be challenged. Managing both traditional and natural assets with a climate lens will ensure that investments will be functional throughout their lifespans and reduce risk. Climate change may also require variations to infrastructure investment to deal with specific impacts. The BC Climate Risk Assessment identified drinking water shortages as a top risk as summer drought becomes the norm. Water conservation and finding ways to reuse and recycle water will spur innovation. The 2020 Climate Action Plan includes an action to incorporate climate change considerations into the City's water distribution and wastewater collection systems. Through this project staff will: • Review and update climate projections as needed • Use climate projections during water and wastewater infrastructure upgrades to ensure they are resilient to future climate changes while ensuring the city is providing core services

- Collaborate and coordinate with Metro Vancouver ongoing to ensure infrastructure and asset investments are climate resilient and to share information

This ongoing work will integrate with ongoing natural asset management and green infrastructure strategy projects currently underway.

Project Objectives
• Review and update climate projections as needed
• Use climate projections during water and wastewater infrastructure upgrades to ensure they are resilient to future climate
• Collaborate and coordinate with Metro Vancouver ongoing

Scope	
In Scope	• Review and update best practices • Infrastructure management • Staff engagement • Regional collaboration
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: 2023 **-** Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Climate Change Integration: Staff will review climate projects for the City and region and integrate climate considerations into upgrades and changes to the city's planning and infrastructure management for water and wastewater. This includes collaborating across multiple city departments (Engineering, Operations, Planning, Finance, Environment and Parks) and Metro Vancouver.	Ongoing

Budget	
Budget Source: N/A	
Climate Change Integration *Increases to infrastructure costs are captured within the capital plan.	$0*
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Capital dollars spent on infrastructure costs per year

Action 42 - Complete more Detailed Climate Risk Assessments of Critical or Vulnerable Municipal Facilities and/or Assets (e.g., Using Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol)

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Jeff Moi, General Manager of Engineering and Operations		
Project Manager:	Stephen Judd, Manager of Infrastructure Engineering Services		
Staff Lead:	Devon Brownlee, Infrastructure Engineer		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to complete more detailed climate risk assessments of critical or vulnerable municipal facilities and/or assets (e.g. using Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol). This project involves research and review, staff engagement, and policy and procedure updates as needed.

Relevant Background
The current practice is to design infrastructure based on historical climate patterns that have no bearing on future patterns. A sewer pipe or culvert may be right sized for historical rainfall patterns that fall nowhere near the intensity or frequency of rainfall anticipated in the decades to come with climate change. More frequent and intense extreme events will also require a rethink of maintenance schedules and asset management in general, as durability will be challenged. Managing both traditional and natural assets with a climate lens will ensure that investments will be functional throughout their lifespans. Climate change may also require variations to infrastructure investment to deal with specific impacts. The BC Climate Risk Assessment identified drinking water shortages as a top risk as summer drought becomes the norm. Water conservation and finding ways to reuse and recycle water will spur innovation. The 2020 Climate Action Plan includes an action to complete more detailed climate risk assessments of critical or vulnerable municipal facilities and/or assets (e.g. using Public Infrastructure Engineering Vulnerability Committee (PIEVC) Protocol). Through this project staff will: • Review and update climate projections as needed

- Undertake climate risk assessments of critical infrastructure and assets to better understand risks and vulnerability
- Prioritize upgrades of infrastructure and assets based on climate risk assessments

This ongoing work will build off the Asset Management Modelling project starting in 2023. This work will also integrate with ongoing natural asset management and green infrastructure strategy projects currently underway.

Project Objectives
• Review and update climate projections as needed
• Undertake climate risk assessments of critical infrastructure and assets
• Prioritize upgrades of infrastructure and assets based on climate risk assessments

Scope	
In Scope	• Review and update best practices • Infrastructure management • Asset modelling • Staff engagement
Out of Scope	• Public engagement

Work Plan Overview	
Project start date: 2023 **-** Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Climate Risk Assessments and Integration: Staff will review climate projects for the City and region and undertake climate risk assessments and critical infrastructure and assets regularly. Results from risk assessments will inform prioritization for upgrades of infrastructure and asset renewal.	Ongoing

Budget	
Budget Source: N/A	
Climate Risk Assessments and Integration: *Increases to infrastructure costs are captured within the capital plan.	$0*
☐ **Request Referral to Finance Committee**	$0

Key Performance Indicators
• Number of municipal facilities assessed for climate risk

- Number of projects that address risk
- Percent of assets per class that have completed risk assessment

Natural Environment

Action 43 - Develop and Regularly Update the Invasive Species Management Program

Climate Action Project Classification
Best Bet: High potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Anna Mathewson, General Manager of Community Services		
Project Manager:	Julie Pavey-Tomlinson, Director of Environment and Parks		
Staff Lead:	Angela Crampton, Environmental Coordinator		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to develop and regularly update the invasive species management program. This project involves research and review, staff engagement, and ongoing monitoring.

Relevant Background
Invasive plants are non-native species that grow quickly, reproduce rapidly, and often out-compete crops and native vegetation. They are a threat to the health of our green spaces and infrastructure (both green and grey). Climate change can make ecosystems more vulnerable to the establishment and spread of invasive species and the presence of invasive species makes ecosystems more vulnerable to the impacts of climate change. Climate change can also create new pathways and accelerate the introduction and spread of invasives species. Degradation of ecosystems and loss of biodiversity can have cascading impacts on natural and human systems, many of which are not well understood. In addition to the environmental impacts associated with invasive species, their presence and spread also results in financial and infrastructure impacts. While species and systems have internal processes of adaptation, we can support or amplify the normal capacity of these systems to adapt by restoring and strengthening the health of our ecosystems.

The City's current management program aims to stop the spread and control priority invasive plants on City land and encourages residents to follow responsible lawn and garden practices.

The 2020 Climate Action Plan includes an action to develop and regularly update the invasive species management program. Under the project staff will:

- Prevent, reduce, control, and mitigate the effects of invasive species
- Reduce relative abundance of invasive plants in the city and increase ecological integrity and resilience of natural areas
- Develop measurable targets and regularly monitor effectiveness of program
- Develop an implementation plan that prioritizes areas based on multi-criteria analysis, transparent process
- Build capacity through, education, outreach, partnerships and collaboration
- Develop sustained funding model to support implementation
- Fill gaps in current invasive program (e.g., invasive pests, early detection and rapid response, aquatic invasives, etc.)
- Document and formalize program and tools for institutional memory, including inventory and mapping tools

This work is planned to be supported by a student or additional staff member from September 2023 to December 2023 and January 2024 to April 2024.

Project Objectives
• Prevent, reduce, control, and mitigate the effects of invasive species
• Reduce relative abundance of invasive plants in the city and increase ecological integrity and resilience of natural areas
• Develop measurable targets and regularly monitor effectiveness of program
• Develop an implementation plan that prioritizes areas based on multi-criteria analysis, transparent process
• Build capacity through, education, outreach, partnerships and collaboration
• Develop sustained funding model to support implementation
• Fill gaps in current invasive program (e.g., invasive pests, early detection and rapid response, aquatic invasives, etc.)
• Document and formalize program and tools for institutional memory, including inventory and mapping tools

Scope	
In Scope	• Research and review, gap analysis • Staff engagement • Student assistance • Presentation to Council • Identification of grants/funding opportunities • Special projects for program development • Ongoing monitoring and reporting
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: Q2 2023	**Project end date: Ongoing**
Deliverable/Milestone:	*Date:*
Phase 1: Assessment and Gap Analysis Scoping, updating current plans with best practices and latest information. Identify capital and operating budget needs	Q3-Q4 2023
Phase 2: Program Development Mapping, framework for invasive species management. Formalize a complete, year-round program, cross-department opportunities, resource acquisition, outline measurable goals.	Q1-Q4 2024
Phase 3: Ongoing Implementation Determine staffing needs, maintenance connection, ramp up staff so dedicated year-round 2-person crew	Ongoing

Budget	
Budget Source: Local Government Climate Action Program Reserve	
Phase 1: Assessment and Gap Analysis Student or additional staff member from Sept – Dec 2023	$30,000 (2023)
Phase 2: Program Development Student or additional staff from Jan-April 2024. Consultant assistance to implement identified work/gaps	$50,000 (2024)
Phase 3: Ongoing Implementation Full time staff and associated costs (additional budget for 601) future years. Will be included in future operating budget new service request.	$50,000 (2025 and ongoing)
☐ **Request Referral to Finance Committee**	$30,000 in 2023 $50,000 in 2024

Key Performance Indicators
• Strategy report developed and online tools in place • Area (m^2) of natural areas targeted for invasive management annually • Crew days spent on invasive management • Number of volunteer hours spent on invasive removal

Action 44 - Continue to Partner with Local Stewardship Groups

Climate Action Project Classification
Quick Win: Average or lower potential to reduce greenhouse gas emissions and/or increase resilience and relatively easy to implement.

Date:	September 2022		
Department, GM:	Anna Mathewson, General Manager of Community Services		
Project Manager:	Julie Pavey-Tomlinson, Director of Environment and Parks		
Staff Lead:	Emily Gutenberg, Environmental Technician		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description

As outlined in the Climate Action Plan, staff plan to continue partnering with local stewardship groups to explore opportunities for collaboration and to maximize and amplify environmental stewardship efforts or raise awareness around environmental issues. This project involves research and review, staff and stewardship group engagement, and ongoing monitoring.

Relevant Background

Species and ecosystems are both impacted by climate change, including changes to species ranges, loss of habitat due to weather pattern changes, drought and storms. Yet the natural environment can also help reduce the severity of climate change impacts on our communities by providing services such as shade during hot summers, infiltration of rainfall and protection against erosion. A multitude of co-benefits are provided by the natural environment ranging from physical and mental health benefits to cleaner air and the sequestration of carbon.

Degradation of ecosystems and loss of biodiversity can have cascading impacts on natural and human systems, many of which are not well understood. While species and systems have internal processes of adaptation, we can support or amplify the normal capacity of these systems to adapt by restoring and strengthening the health of our ecosystems. The importance of ecosystem health was reflected in the Phase 1 CAP Implementation Strategy with staff action focused on the implementation of projects to restore and enhance natural areas on city lands.

Local stewardship groups also provide direct investment of knowledge, time, and skills to improve the health of our ecosystems and community. They play a critical role in increasing awareness around the environment and adapting to the impacts of climate change. For example, local stewardship groups in Port Moody have driven salmon restoration, enhancement and conservation activities. Partnerships with local stewardship groups can provide opportunities for collaboration and to maximize and amplify environmental stewardship efforts or raise awareness around environmental issues. The City has long standing relationships with local stewardship groups and as a result have partnered with many of them to deliver environmental restoration and enhancement as well as education and outreach initiatives.

The 2020 Climate Action Plan includes an action to continue partnerships with local stewardship groups to collaborate on protection and enhancement of the natural environment and awareness of initiatives to protect, restore and enhance and recognize the benefits of natural areas in Port Moody. Under this project staff will:

- Continue partnerships with existing local stewardship groups;
- Expand partnership opportunities by identifying and reaching out to other local stewardship groups;

- On an ongoing basis engage with city staff and stewardship groups; and
- Undertake initiatives in partnership with local stewardship groups as appropriate, especially where synergies exist.

Currently, the City and local stewardship groups collaborate on several projects that aim to improve climate resiliency and biodiversity. In 2022, the city participated in the City Nature Challenge, and stewardship groups played an active role in the success of this project by hosting events throughout the City. Stewardship groups have been actively working to support bat populations in the city since 2017. In 2022, the city received Bat-Friendly Community Certification from the BC Community Bat Program. Partnering with stewardship groups will support achieving and maintain this certification. Stewardship groups support wildlife monitoring and outreach and invasive plant removal on an ongoing basis. Stewardship groups are also important stakeholders in city-initiated projects to restore and enhance natural areas on city lands. One such project, initiated under the Phase 1 Implementation Strategy, is the Lower Suter Brook Enhancement Project. Local stewardship groups provided input in the design and scoping of the project and will play an active role in implementation. Staff have applied for a grant from Infrastructure Canada to partially fund this work, anticipated to begin in 2023. In 2023, $200,000 has been requested through the capital budget to support this project.

Project Objectives
• Continue partnerships with existing local stewardship groups
• Expand partnership opportunities by identifying and reaching out to other local stewardship groups
• On an ongoing basis engage with stewardship groups
• Undertake initiatives in partnership with local stewardship groups as appropriate and where synergies exist

Scope	
In Scope	• Partnership opportunities identification • Regular communication and engagement with stewardship groups • Special projects for program development • Ongoing monitoring and reporting
Out of Scope	• Public engagement • Stakeholder engagement

Work Plan Overview	
Project start date: 2023 - Ongoing	**Project end date: Ongoing**
Deliverable/Milestone:	*Date:*
Lower Suter Brook Enhancement Project detailed design Bat-Friendly Community Certification activities City Nature Challenge	June 2023 2023 and ongoing Spring 2023 and ongoing
Ongoing Partner Management Manage existing partnerships with local stewardship groups and continue to identify new partnership opportunities.	Ongoing

Budget	
Budget Source: Asset Reserve and Grant Funding	
Ongoing Partner Management	$0
Collaboration Projects Lower Suter Brook Enhancement Bat-Friendly Community Certification City Nature Challenge *Future collaboration projects to be determined based on partnership discussions (e.g., restoration, water quality monitoring, education and outreach, instream works)*	 $200,000 (2023) $5,000 (2023) $3,000 (2023)
☐ **Request Referral to Finance Committee**	$208,000 (2023) TBD (2024, depending on grant funding)

Key Performance Indicators
• Host 3 stewardship group meetings per year • Number of projects completed in partnership with local stewardship groups

Action 45 – Complete and Initiate the Parkland Strategy

Climate Action Project Classification
Major Project: High potential to reduce greenhouse gas emissions and/or increase resilience and harder to implement.

Date:	September 2022		
Department, GM:	Anna Mathewson, General Manager of Community Services		
Project Manager:	Kim Law, Manager of Project Delivery Services		
Staff Lead:	Chad Siemens, Project Manager		
Project Origin:	☐ Council Motion ☐ Staff Initiated ☒ Other: Action in the Climate Action Plan		
Priority Area:	☐ Exceptional Service ☐ Economic Prosperity	☐ Environmental Leadership ☐ Community Evolution	☐ Healthy City
Strategic Alignment	TBD		
Proposed Priority	☐ Priority Level 1	☐ Priority Level 2	☐ Priority Level 3

Project Description
As outlined in the Climate Action Plan, staff plan to complete and initiate the Parkland Strategy to improve park management and acquisition. This project involves research and review, staff and stakeholder engagement, and ongoing monitoring.

Relevant Background
Ensuring ecosystems are protected, healthy and resilient for the long term is central to Port Moody retaining its unique sense of place. Over time, the importance of protecting parks and natural areas and connecting people to nature will only increase as the region grows and evolves. As people's understanding of the physical and mental health benefits of spending time in nature increases, the demand for parks and natural areas is expected to increase. Changing demographics, both in the makeup of the population and the way that people are housed, will impact both the demand for natural areas close to urban areas and how these areas are used. Port Moody has a rich and diverse natural environment that provides essential ecosystem services such as stormwater management, pollination, flood management, and cooling that addresses urban heat island effects. Forests, wetlands, and other ecosystems help regulate the global climate by removing and storing carbon dioxide from the atmosphere. However, the health of these ecosystems is deteriorating and is vulnerable to further degradation, especially with a changing climate. Many species and ecosystems in the region are at risk of being impacted or displaced entirely due to climate change, because they cannot adapt fast enough. Although the specific nature and scale of the impacts is uncertain, it is expected that climate change will impact ecosystems throughout the region, at the site scale as well as region wide. For example, changing climatic conditions may reduce the viability of some species or ecosystems within parks. Rising sea level, spread of invasive species, changes to precipitation patterns, and increased drought conditions may also threaten biodiversity and the resilience of the parks and natural system. Parks and greenways help communities and ecosystems withstand and adapt to changes brought on by climate change by offering an interconnected and protected network of park land. Enlarging protected parks and natural areas, improving their connectivity, and conserving areas with complex natural systems are three ways to enhance the resilience of the species and ecosystems within parks and natural areas. Parks also help mitigate climate change impacts by protecting stored carbon in forests, bogs and wetlands. The 2020 Climate Action Plan includes an action to implement the Parkland Strategy to improve park management and acquisition in Port Moody, specifically with a climate change lens. The Parkland Strategy is currently under development and will be completed in 2023. The Strategy will provide a framework to identify specific parkland requirements that include a climate lens in decision making. Pending Council endorsement of the strategy, staff will begin implementing recommendations from this long-range (30-year) strategy. Costs for parkland acquisition as identified through the Parkland Strategy will be brought forward for Council consideration.

Project Objectives
• Complete the Parkland Strategy and seek Council endorsement
• Begin implementation and monitoring of the long-range Parkland Strategy with a climate lens

Scope	
In Scope	• Staff engagement • Strategy development • Strategy implementation • Ongoing monitoring and reporting • Stakeholder engagement

	• Public engagement
Out of Scope	• Costs for parkland acquisition

Work Plan Overview	
Project start date: 2023 - Ongoing	**Project end date:** Ongoing
Deliverable/Milestone:	*Date:*
Phase1: Parkland Strategy Development Staff will continue development of the Parkland Strategy.	2023
Phase 2: Parkland Strategy Implementation Pending Council endorsement of the Parkland Strategy, staff will begin implementation and monitoring of the long-range strategy with a climate lens.	2024 - Ongoing

Budget	
Budget Source: PK20041	
Phase1: Parkland Strategy Development	$70,000 [funding previously approved through PK20041]
Phase 2: Parkland Strategy Implementation	2024 - TBD
☐ **Request Referral to Finance Committee**	$0 in 2023 $TBD in 2024

Key Performance Indicators
• Parkland acquisition targets identified

Appendix 1

Backcasting in Port Moody: Prioritizing Strategies for Climate Action

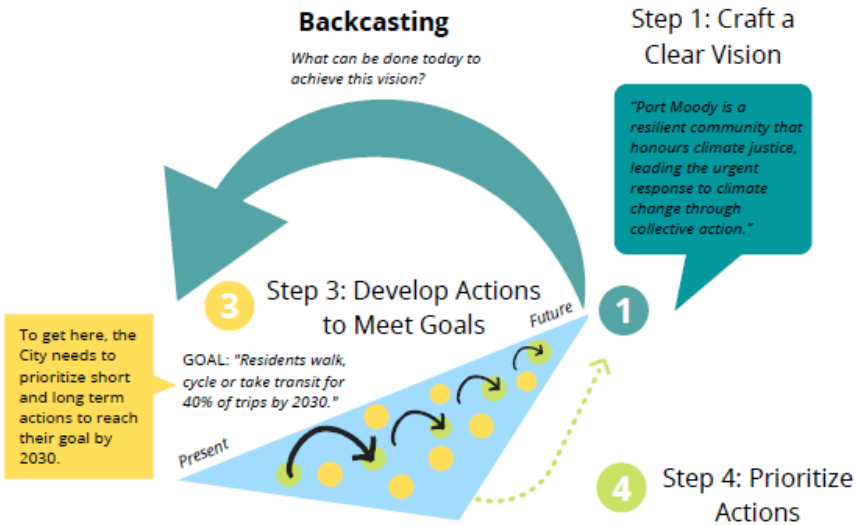


Diagram Adapted from Natural Step, 2011.

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