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<i>COUNCIL AGENDA</i>	
Date: <u>September 19, 2022</u>	Item: <u>7.</u>



DISTRICT OF WEST VANCOUVER
750 17TH STREET, WEST VANCOUVER BC V7V 3T3

7.

COUNCIL REPORT

Date:	September 2, 2022
From:	Heather Keith, Senior Manager, Climate Action & Environment
Subject:	Climate Action Strategy Overview
File:	01-0332

RECOMMENDATION

THAT Council receive the report titled “Climate Action Strategy Overview: Scoping Report” from the Senior Manager, Climate Action & Environment, dated September 2, 2022, for information.

THAT staff be directed to use \$100,000 from the Environmental Reserve Fund to complete the Climate Action Strategy.

1.0 Purpose

To provide Council an overview of the scope of work to complete a Climate Action Strategy (the “Strategy”) for the District of West Vancouver to meet the District’s greenhouse gas (GHG) emission reduction targets, adapt to climate change, and protect the natural assets of the community.

2.0 Legislation/Bylaw/Policy

The District recently adopted Environmental Reserve Fund Bylaw No. 5188, 2022 to support climate action and environmental protection initiatives. Council resolution is required for the use of the funds.

The District has completed several plans that include specific guidance on steps to be taken to protect our natural assets, adapt to climate change, and reduce greenhouse gas (GHG) emissions, including:

- Climate Action Plan (2010)
- Corporate Energy and Emissions Plan (2016)
- Community Energy and Emissions Plan (2016)
- Sustainable Building Policy (2018)
- Natural Assets Inventory (2019)
- Community Wildfire Protection Plan (2019)
- Northshore Sea Level Rise Strategy (2021)
- Coastal Marine Management Plan (2022)
- Urban Forest Management Plan (in progress)

3.0 Council Strategic Objectives/Official Community Plan

The Official Community Plan (Bylaw No. 4985, 2018) provides high-level policies under an overarching objective for the Environment to manage the urban environment by strengthening existing environmental regulations and facilitating environmental restoration and enhancement actions; protect and enhance the ecological integrity of specific natural assets, including our watercourses, riparian areas and watersheds, foreshore areas, and sensitive habitats; and respond to climate change and build climate resiliency across the community.

There are several policies related to the protection of the natural environment and climate adaptation and mitigation within Sections 2.4, 2.5, 2.6, and 2.7. Specifically, the OCP includes emission reduction targets for the community, including:

- Policy 2.5.19 - Implement corporate energy and emissions reduction initiatives (e.g., energy and GHGs derived from municipal operations) to advance towards the District's corporate GHG reduction target of 33% below 2007 levels by 2020 and 80% by 2050, and seek to achieve goals earlier if possible
- Policy 2.6.19 - Implement community energy and emissions initiatives to advance towards meeting the District's greenhouse gas emissions reduction targets of 45% below 2010 levels by 2030 and 100% by 2050 or sooner, notably through the land use, housing, transportation, low carbon energy and infrastructure policies contained in this plan.

The OCP also includes "Natural Environment and Hazard Guidelines for Development Permit Area Designations" for wildfire hazard, watercourse protection, and coastal flooding with respect to private property development as measures to adapt to the impacts of climate change.

In addition, Council's 2021-2022 Strategic Plan includes a goal to "Protect our natural environment, reduce our impact on it, and adapt to climate change" and includes various objectives to meet this goal specifically in relation to this report and the recommended funding:

- Objective 3.1: Create a reporting framework to reduce energy use and carbon emissions by the community and in District operations.
- Deliverable 3.1.1: Prepare metrics, modeling, and projections for 2030 and 2050 in accordance with IPCC targets.

4.0 Financial Implications

This report recommends a scope of work to complete a District-wide Climate Action Strategy. The estimate to complete the Climate Action Strategy is \$100,000 to cover expenses for the development of the Strategy, including the completion of the GHG emissions inventory, modelling, projections, and carbon accounting; resources for a public

engagement period; and document development, with an anticipated completion by the end of 2023. The budget to complete the GHG modelling and carbon accounting will be supplemented by the funding under the Provincial Local Government Climate Action Program (LGCAP), which is a new program in 2022 to provide local governments with predictable and stable funding to support the implementation of local climate action that reduces emissions and prepares communities for the impacts of a changing climate.

Any funds not used in the development of the Strategy will be returned to the Environmental Reserve Fund for use on other climate action initiatives.

5.0 Background

5.1 Previous Decisions

Council, at its February 14, 2022 meeting, passed the following motion:

THAT a 2022 Environmental Levy increase of 1.5% be approved.

Following that decision, the 2022 budget included a 1.5% Environmental Levy that resulted in approximately \$1.2 million to be allocated towards climate action and environmental protection projects, and associated policies and bylaws. These funds will be used for projects to lower greenhouse gas emissions both in District operations and in the community; climate change response projects such as tree planting programs, stormwater and foreshore management projects, wildfire protection, coastal flood protection, and stream rehabilitation; and measures to protect our natural assets.

Council, at its July 25, 2022 meeting, passed the following motion:

THAT proposed “Environmental Reserve Fund Bylaw No. 5188, 2022” be adopted.

The adoption of this bylaw allows the administration and use of the Environmental Levy through Council resolution. To effectively use the Environmental Levy on climate action initiatives that will move the District towards its emissions reduction targets, a strategy is required for Council and staff to prioritize actions to achieve these targets as well as adapt to the current changing climate and protect our natural assets. This report provides an overview of the scope of work to complete this Strategy.

5.2 History

The District of West Vancouver has a history of leadership in climate action, including:

- 2001 – Signing the “Municipal Leaders Resolution on Climate Change” to participate in the Partners for Climate Protection Program.

- 2008 – Signing the British Columbia Climate Action Charter to plan for compact, complete, and energy-efficient communities and to achieve carbon neutrality in corporate operations.
- 2010 – Adopting the Community Climate Action Plan to inform OCP climate action targets and policies. The actions outline in this plan have been incorporated or updated into more recent plans.
- 2014 – Reaching carbon neutrality in corporate operations. As of 2020, the District is no longer carbon neutral in corporate operations as sufficient offsetting credits related to actions undertaken by the District to reduce corporate greenhouse gases, are no longer available.
- 2016 – Adopting the Community and Corporate Energy Emissions Plans (CEEPs).
- 2018 – Embedding the CEEP actions into the OCP.
- 2018 - Adopting the highest community-wide BC Energy Step Code standards to date largely in alignment with the other North Shore municipalities.
- 2019 - Council recognizing that climate change constitutes an emergency for West Vancouver.
- 2019 – Completing a natural capital assets inventory for the District.
- 2019 – Adopting a Community Wildfire Protection Plan.
- 2020 – Amending the OCP, Zoning, and Building bylaws to respond to the climate emergency declaration.
- 2020 – Adopting a Wildfire Hazard Development Permit Area to minimize risk of wildfire to private property development.
- 2022 – Adopting a Foreshore Development Permit Area to protect private property development from sea level rise and coastal flooding.

These plans and policies demonstrate many accomplishments in moving the District towards its climate action goals across various sectors.

The Intergovernmental Panel on Climate Change (IPCC) updated their emissions reduction targets in 2018 based on the understanding that climate change is happening more rapidly than previously calculated. The new targets include an emissions reduction of 45% from 2010 levels by 2030 and 100% reduction (i.e., or carbon neutral, which is net-zero carbon dioxide emissions by either balancing emissions of carbon dioxide with removal or by eliminating emissions all together) by 2050 to limit global warming to no more than 1.5 deg Celsius, a threshold considered critical to limit the effects of climate change. Through the CleanBC Roadmap to

2030 Roadmap, the Province has also updated their strategy and action plan to move toward net zero emissions by 2050.

The OCP was adopted in 2018 to officially include the latest IPCC reduction targets as Council policy and embed emissions reduction actions into planning and land use management. Although, the Community EEP (targets: 40% by 2040 and 80% by 2050 from 2010 levels) and Corporate EEP (targets: 33% by 2020 and 80% by 2050 from 2007 levels) still contain the previous IPCC targets; the OCP now contains the update targets, which is Council's official policy and what the District is working towards.

On July 8, 2019, Council recognized that climate change constitutes an emergency for West Vancouver and that staff continue to implement policies and plans to meet the present IPCC targets. Through the implementation of the CEEPs, initiatives such as the adoption of BC Energy Step Code standards, residential/facility energy retrofit programs, solid waste diversion, fleet electrification and electric infrastructure preparation, municipal building energy efficiencies, local area plans (LAPs), parking reductions, corporate policies, and other initiatives, the District has made steady progress to reduce GHG emissions both corporately and in the community.

Tracking of corporate emissions have been completed annually as a requirement of the Provincial Climate Action Revenue Incentive Program (CARIP, which was discontinued in 2021 and replaced by the Local Government Climate Action Program, LGCAP). Tracking of community emissions is based on emissions inventories completed by the Province, for municipalities. The Community EEP used emissions data from 2012; however, the Province has just released new data in 2022 for the years up to 2019 and can now be used to establish where the District is with respect to emissions.

5.3 Discussion

Context

The Community and Corporate EEPs both recommend that there is value in having a cross-departmental strategic planning lens to help manage GHGs that can be incorporated into major district planning processes such as the annual budget and infrastructure plans. Taking this recommendation into account, the objective of a District-wide Climate Action Strategy is to have an implementable action plan where the recommendations from these existing plans will be prioritized in order to focus the District's efforts on key initiatives that will most significantly reduce GHG emissions as well as help make our community adaptive and

resilient in the face of a changing climate. The Strategy will also focus on leadership within municipal operations to address climate change as well as developing partnerships within the community, across municipalities, and with senior levels of government to drive climate action efforts.

CLIMATE ACTION STRATEGY DEVELOPMENT

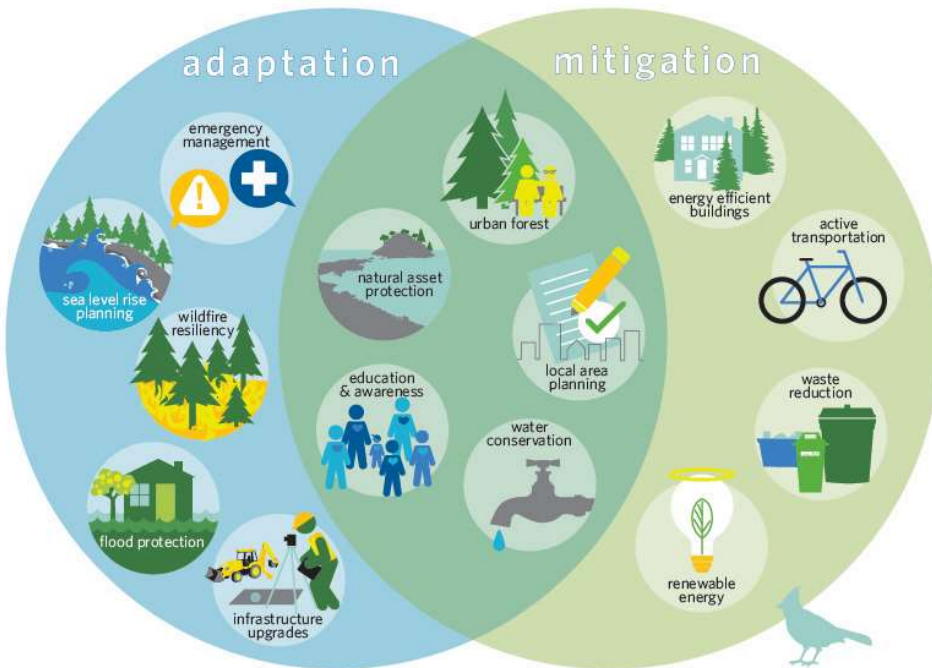


Figure 1 The inter-connection of climate adaptation and mitigation measures.

The three pillars of focus in the Strategy are to:

- Reduce GHG emissions;
- Adapt to climate change; and
- Protect the community's natural assets.

Recognizing that these three pillars are inter-connected (**Figure 1**), the Strategy requires the integration of climate change adaptation and emissions reductions to minimize risk and generate community benefits, which is a system commonly referred to as Low Carbon Resilience (LCR) (e.g., the reduction of GHG emissions will provide a cleaner, healthier community and natural environment, the enhancement/maintenance of the natural environment will in turn help to reduce GHG emissions, and early adaptation to the changing climate will help to build resiliency in the community to reduce significant impacts on our well-being and daily life).

Strategy Objective

As outlined above, the District already has various plans outlining recommendations to address these pillars (e.g., the CEEPs to reduce

emissions). The objective of the Strategy is to connect the existing plans across the three pillars and clearly articulate the actions that need to be prioritized, the path forward, and the rate to complete the actions in order to reach the more aggressive IPCC targets. The Strategy will help to communicate to Council and the community in a more efficient and effective manner.

It is also important to note that new technology, information, research, senior government programs, and alternative energy and adaptation options are emerging at a greater rate with opportunities to effectively reduce GHG emissions and adapt to climate change more readily available. The rapid advancements will allow municipalities to move forward at a faster rate to address the three pillars. The Strategy will provide the District the opportunity to incorporate new developments in these fields to meet our targets efficiently.

Strategy Framework

The Strategy will be developed using the following framework:

- Vision – Where are we now and where do we want to go?
- Goals –What do we want to achieve as an organization and as a community under the three pillars of Protect, Reduce, Adapt?
- Targets – What is the pathway to achieve our goals?
- Actions – What are the key actions to reach the targets and what are the metrics to measure success?

The Strategy will be based on the following principles:

- Leadership and guidance
- Harmonization of climate actions
- Accountability (to the public)
- Energy use visibility (reporting of emissions)
- Climate lens decision making (corporate decisions)
- Renewable energy transition
- Removing barriers for the community to achieve the goals
- Early planning (for adaptation)
- Partnering across jurisdictions (other municipalities, senior levels of government, stakeholders, stewardship groups)
- Continuous tracking and adjusting to meet goals

The Strategy will focus on implementable actions to achieve the greatest greatest emission reductions while considering adaptation measures and natural asset protection.

Existing plans outline recommendations in the following sectors that will be prioritized within the Strategy:

- Homes and buildings (residential and commercial) energy efficiencies (e.g., access to EV charging in existing buildings, zero carbon new construction, retrofits to existing buildings, waste diversion);
- Transportation (mode shifting);
- Waste reduction;
- Corporate (municipal operations) energy efficiencies, processes, and policies;
- Adaptation planning (infrastructure management, sea level rise, coastal flooding, heat, storm events, droughts, stormwater management); and
- Natural asset protection/enhancement (urban forest, creeks, foreshore, etc.).

Steps to Complete the Strategy

The following steps will be taken to complete the Climate Action Strategy and will be completed in a phased approach, with Council updates as the work progresses:

1. Establishing a Baseline – The Community EEP was completed using the Province’s Community Energy and Emissions Inventory (CEEI) from 2012. The CEEI provides a provincial framework for tracking and reporting energy and greenhouse gas (GHG) emissions at a community-wide scale. The Province released an updated inventory in 2022 with 2019 landfill waste and utilities energy data, which will be used to establish updated community emissions.

To provide a complete assessment of community-scale emissions, the inventory will also need to include transportation emissions baseline data. Transportation data are not provided by the Province; therefore, staff will work with the selected consultant to collect these data, where possible.

For the corporate emissions component, data have been collected each year and will be used to update metrics, modeling, and projections for the municipal operations. Emerging mechanisms to achieve carbon offsets for municipalities are now available as well as methods to capture carbon sequestration by trees and forests in emissions inventories. These could also be explored within this analysis to help support the District’s pathway to carbon neutrality.

2. Developing a Carbon Budget and Accounting Framework - Climate budgeting helps to operationalize a Climate Action Strategy by turning long-term targets into annual delivery plans and ensure that

the most effective actions are prioritized and financed. The budget enables the District to set a year-by-year cap on emissions, in line with the District's long-term targets. It creates manageable actions for delivery in the immediate to short-term by outlining which policies and programs will be implemented to reach the District's targets, what they cost, who is responsible, and their anticipated impact on emissions.

A carbon budget and accounting framework also creates transparency and accountability and allows a climate lens to assess carbon impacts in decision making. With the emissions modelling and the carbon accounting framework, a pathway to achieve the District's emissions reduction target by 2050 will be developed to understand what needs to change, the pace at which the changes need to occur, and the consequences of delayed investment or action.

3. Completing a gap analysis of existing plans – Significant work has been done on the implementation of existing plans outlined above in Section 5.2 to work towards the more recent IPCC targets. As part of this scope of work, an analysis of the progress on the Corporate and Community EEPs and other adaptation planning will be completed to determine what actions have been completed and where efforts and resources need to be prioritized to continue the implementation of outstanding actions.
4. Aligning goals – The CEEP's focus on measures to reduce emissions, which need to be aligned with measures to adapt to climate change impacts that are already occurring and to protect and enhance our natural assets to provide a complete Climate Action Strategy.

The Strategy will outline integrated actions to ensure that all initiatives are supporting the three pillars to move towards the District's overall goals to address climate change.

5. Developing the Strategy – The Strategy will be developed using the emissions modelling and carbon budget framework to inform and prioritize actions and implementation timelines to meet interim targets by 2030 and carbon neutrality by 2050.

The Strategy will delineate targets, timing, sequencing within a roadmap for the most critical actions to reduce GHG emissions, adapt to climate change, and protect our natural assets.

Timeline to Develop the Strategy

The Strategy will be developed in five phases noting overlap of some phases given the division of work between an external consultant and staff, as shown in **Table 1**.

Phase	Activity	Lead	Anticipated Completion
1	GHG emissions modelling and carbon budget and framework development	External consultant	Q2 2023
2	Gap analysis and status of existing plans	Staff	Q4 2022 / Q1 2023
3	Development of draft Strategy	Staff and External Consultant	Q3 2023
4	Public engagement on draft Strategy	Staff	Q3 2023
5	Finalize Strategy for Council consideration	Staff	Q4 2023

Table 1 Anticipated timeline to complete the Climate Action Strategy.

Strategy Implementation

As the Strategy will be directly connected with the Environmental Reserve Fund, the carbon accounting framework and climate lens will help to guide decision-making, the use of the Environmental Reserve Fund, leveraging of other funding sources, and budget allocation for projects that meet the goals and targets outlined in the Strategy. The decision framework will also assess ongoing costs of actions to reduce GHG emissions or adapt to climate change.

The Strategy will allow staff to plan for upcoming work, allocate resourcing appropriately, explore emerging options for GHG emissions reductions, and ensure the continuous implementation of actions based on existing plans.

There are three mechanisms of delivery that allow the District to move towards our targets: (i) Regulate – bylaws to require change in behaviour, activities, etc.; (ii) Advocate – incentives, education, influence, and outreach to promote change; and (iii) Invest – build up of funds to make necessary changes in the community and corporately. For each action, the type of implementation function will be evaluated in the decision making to ensure the most appropriate method is taken to achieve the District’s goals.

5.4 Sustainability

A Climate Action Strategy provides a significant opportunity to continue to advance the District's climate action initiatives in a coordinated approach across sectors that align with provincial, federal, and international targets to reduce GHG emissions while also adapting to current changes in the climate and ensuring the protection of natural assets to help mitigate against climate change.

5.5 Public Engagement and Outreach

Public engagement has been completed for many of the existing plans that will provide a foundation and framework for the Strategy, including the Corporate and Community Energy Emissions Plans, Northshore Sea Level Rise Strategy, Coastal Marine Management Plan, OCP, Urban Forest Management Plan, etc.

As described above, public engagement on the District's Climate Action Strategy will occur in Phase 4 of the scope of work. Public engagement on the draft Strategy will provide an education opportunity for residents and other stakeholders to understand the District's vision and goals to gain support and participation on climate action initiatives.

5.6 Other Communication, Consultation, and Research

Work completed by other municipalities as well as Provincial (CleanBC Roadmap to 2030) and Federal climate action plans will be used as resources in the development of the District's Climate Action Strategy. The author of this report as well as other staff also participates on many committees through, for example, Metro Vancouver and the Community Energy Association, that focus on collaboration and information sharing across municipalities and with experts in the climate action field, providing benefit and value to the development of the District's Climate Action Strategy.

6.0 Options

6.1 Recommended Option

- a) Receive this report for information and direct staff to use \$100,000 from the Environmental Reserve Fund to complete the energy emissions inventory, modelling, carbon budget and accounting framework, and Strategy development.

6.2 Considered Options

- a) Request further information or provide alternative direction (to be specified).

7.0 Conclusion

To meet GHG emission reduction targets and align with goals established by the IPCC, the District needs an action plan to continue to implement existing policies and plans in a manner which will move the District towards the IPCC targets and objectives to adapt to current changes in climate and protect our natural assets.

To this end, staff recommend the development of a District-wide Climate Action Strategy and a budget request to complete the strategy, including GHG emissions modelling and carbon accounting framework to allow progress tracking towards the established targets.

Author:



Heather Keith, Senior Manager, Climate Action & Environment