



BURNABY CLIMATE ACTION FRAMEWORK

Progress Report
2023-2024

THIS IS 
CLIMATE
ACTION



Acknowledgement

Burnaby is located on the ancestral and unceded homelands of the hən̓ə̱míəw̓ and Skwxwú7mesh Sníchim speaking peoples. We are grateful for the opportunity to be on this territory.



Overview

The impacts of climate change are not something we may encounter in the future—they are here now.

In the summer of 2021 we experienced a deadly heat dome and one of the worst wildfire seasons to date. In November of that same year, an atmospheric river caused mudslides and flooding that devastated agricultural lands and blocked critical transportation routes. Together, the climate disasters of 2021 were among the costliest in Canadian history.

Then came 2023, which has been confirmed by the international scientific community as the hottest year on record, globally. In BC, 2023 saw the most destructive wildfire season in the province's history. More than 2.84 million hectares of forest and land burned, tens of thousands of people were forced to evacuate, and hundreds of homes and structures were lost or damaged.

The extreme weather of the past few years offer a clear picture of what will become regular occurrences. Not only do we need to reduce or eliminate the things we use and do that contribute to climate change, we also need to adapt to these new realities.

Eliminating or reducing the greenhouse gas (GHG) emissions that contribute to climate change and preparing for the changes that are already upon us will require action by all levels of government. Recognizing this, Burnaby City Council in 2019 declared a climate emergency and set the following community-wide GHG reduction targets:

- » 45% reduction by 2030
- » 75% reduction by 2040
- » Carbon neutral (no longer contributing to the carbon emissions that accelerate climate change) by 2050

That led the City to develop:

- » the Climate Action Framework, which outlines recommendations for strategic GHG emission reduction actions to reach City and community-wide targets
- » the City Energy Strategy, which guides the City in meeting a more aggressive target of achieving carbon neutrality in its own operations by 2040

To help us achieve our targets, Burnaby is closely monitoring and taking advantage of provincial supports, legislation and tools, such as the new Local Government Climate Action Program, the Zero Carbon Step Code and the Environment and Disaster Management Act.

And while it's important for various levels of government to work together to tackle climate change and its impacts, it's equally important for us to collaborate with our residents and community partners. Climate change matters to the community. Through the Urban Resilient Futures Initiative, a cohort of 17 committed citizens engaged their communities in dialogue on climate change and produced the Burnaby Climate Action Guide. In addition, a Burnaby Community Assembly of 40 residents came together to make 24 recommendations for Burnaby's Official Community Plan, several of which speak to the need to reduce transportation emissions and create more green spaces.

Tackling climate change is a big, global problem. And only by working together—with our neighbours, residents and community partners—will we be able to effectively lower our emissions and achieve our targets.

This report highlights actions taken and progress made by the City of Burnaby from July 1, 2022 to June 30, 2024.



Climate Leadership

By building community partnerships, advancing progressive policies and raising public awareness, the City is helping lead Burnaby towards our carbon reduction goals.

Actions

- » Reached significant milestones of the Urban Resilient Futures Initiative with the SFU Morris J. Wosk Centre for Dialogue and Vancity, including:
 - completing the Zero-Emission Building Retrofit Task Force report
 - submitting the Burnaby Community Assembly's recommendations to Council to contribute to Burnaby's Official Community Plan project
 - establishing the Climate Action Fellowship and the Neighbourhood Fund for Climate Action
- » Continued to raise public awareness of climate issues through various communication platforms including Burnaby.ca, progress reports, CityConnect direct mail, and CityConnect and Environment eNewsletters.
- » Advanced climate literacy education with City staff through internal learning and development initiatives.



**Big
Move
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Highlight

Climate Action Fellowship

A foundational goal of the Urban Resilient Futures (URF) Initiative is to put people at the centre of climate action. A key citizen-led URF initiative is the Climate Action Fellowship, which, in 2023, brought together 17 dedicated, climate-conscious residents to explore ways to achieve a climate-resilient, community-led future for Burnaby. The Fellowship aims to empower both residents and institution leaders to become climate champions, building climate literacy and initiating climate action projects in their communities.

Members of the Fellowship cohort developed a Burnaby Climate Action Guide as a roadmap for reducing carbon emissions. This guide offers insights into their learning journey and highlights opportunities for climate action in Burnaby. Together, the experience and insights generated from this initiative will accelerate climate action and foster greater cohesion and collaboration across organizations, institutions and groups most impacted by climate change.

The hope for this group-centred approach is that it will sustain long-term progress rooted in community aspirations and relationships.

To further accelerate climate action and resilience in communities, the Neighbourhood Fund for Climate Action project aimed to catalyze community actions by providing access to funding to seven groups/initiatives and connecting them with City staff and decision-makers. These low-barrier grants support initiatives such as community action on public transportation, student-led sustainability projects and community-run education campaigns.

Quick starts	Completion date	Status
1 Develop the City Energy Strategy and create an Energy Transition Team.	2021	Complete
2 Show leadership through City projects, policies, plans and actions.	Ongoing	On track
3 Advocate for climate action with partners and senior government.	Ongoing	On track
4 Expand climate engagement and awareness.	Ongoing	On track



Big Move 2

Resilient Neighbourhoods

Burnaby aims to create a network of climate-friendly, resilient neighbourhoods, including projects to provide clean energy, manage stormwater and prepare homeowners for future extreme weather events.

Actions

- » Adopted the Burnaby District Energy (DE) Policy and Connection Guidelines, which secures building requirements for future DE system readiness and system connections for qualifying existing and new buildings in south Burnaby.
- » Authorized staff to develop on-site stormwater management requirements for new small-scale multi-unit housing developments.
- » Adopted a Boulevard Treatment and Maintenance Policy to guide homeowners in maintaining healthy, climate-friendly boulevard spaces.
- » Continued to bring a climate focus to our Official Community Plan project.
- » Prepared a design library for small-scale multi-unit housing designs.





Highlight

Cascade Heights and Royal Oak Urban Village Community Plans

Completion of the Bainbridge and Lochdale urban villages community plans, approved by Council in July 2022, represented the first step toward creating a network of urban villages across the city. This work opened the door to planning for the next two urban village community plans—Cascade Heights and Royal Oak. Phase one public engagement for both plans took place during the summer of 2023. Draft plan directions were developed over the following winter and spring, and a second round of public engagement occurred in the summer of 2024. Detailed planning and plan finalization are scheduled to take place by the end of 2024.

The principles of urban villages are closely aligned with our Climate Action Framework by creating sustainable and resilient neighbourhoods where residents can work, shop, learn, and play close to home, and have easy access to public transit. Urban villages are thriving, mixed-use, locally focused communities featuring:

- » new or enhanced parks, trails, community services and amenities for residents
- » enhanced streets, public spaces and green spaces
- » an expanded mix of market and non-market housing
- » local employment options
- » opportunities to shift to more sustainable forms of transportation (walking, transit, cycling)
- » greater connections to the natural environment

Both areas present unique opportunities for transforming into low-carbon, resilient neighbourhoods that support climate adaptation, household diversity, transportation mode shift and compact growth.

Quick starts	Completion date	Status
1 Plan for two resilient urban villages.	2022	Complete
2 Research and plan for future zero-carbon communities, in advance of the OCP update.	2022	Complete
3 Prepare for renewable energy projects: solar and biogas.	2023, Ongoing	On track
4 Develop a climate adaptation strategy.	Underway	On track

Healthy Ecosystems

Healthy greenspaces—parks, boulevards, streamside areas and the urban forest—are critical to maintaining a healthy and resilient ecosystem.



Actions

- » Published the Urban Forest Strategy: Stage 1—State of the Urban Forest report.
- » Expanded the scope of work in the Urban Forest Strategy to include trees on both public and private lands.
- » Started work on creating a new Streamside Development Permit and associated guidelines for development near streams.
- » Implemented pollinator meadow corridors in five grass-based sites and three park projects.





Big Move 3

Highlight

Urban Forest Strategy: Stage 1—State of the Urban Forest

The State of the Urban Forest report provides a snapshot of Burnaby’s urban forest and forms the foundation of the overarching Urban Forest Strategy. Our urban forest is a central part of the city’s green infrastructure, providing recreational opportunities, community health, well-being and high-quality urban environments. Furthermore, our urban forest also provides critical benefits to the environment, including reducing storm water runoff, sequestering carbon, reducing surface and air temperatures, and enhancing local biodiversity and beautification.

The tree canopy cover in Burnaby in 2022 was approximately 32%. The majority of Burnaby’s tree canopy is located on public lands. The distribution of the city’s tree canopy is 55% on parkland, 28% on private property and 17% on roads and other City-owned property. The areas with the highest land temperatures are also the areas with lowest tree canopy and most impervious surfaces. Our canopy analysis estimates that Burnaby’s urban forest generates more than \$8.1 million in annual ecosystem services, and more than \$54 million is accounted for in stored carbon.

The findings outlined in the State of the Urban Forest report provide information about the distribution, structure and the value the urban forest provides to our community. The analyses support goal setting for urban forest management, establishing a baseline for measuring future change as new data becomes available and building a foundation for future action plans and policy changes.

Quick starts	Completion date	Status
1 Enhance and expand streamside areas.	Ongoing	On track
2 Increase green infrastructure.	2023, Ongoing	On track
3 Expand and enhance the urban forest: develop and adopt an urban forest strategy.	2023, Ongoing	On track

Accelerated Mode Shift

With almost half of all Burnaby's carbon emissions coming from transportation, shifting trips to public transit or active modes will be critical to achieving Burnaby's climate action targets.



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Actions

- » Advanced work on Edmonds Town Center Cycling Network.
- » Worked toward finalizing designs for the new Vancouver to SFU cycling connection.
- » Introduced Car Share programs across Burnaby to reduce reliance on car ownership.
- » Installed more than 50 new bus shelters through the Bus Shelter Expansion Program.
- » Began construction on the Burnaby Lake Overpass, which will serve as a critical north-south connector between key regional trail networks and destinations within Burnaby.
- » Started construction on approximately 13 kms of sidewalk improvements.
- » Initiated multiple transit priority projects including:
 - Canada Way Corridor Study to improve bus speed and reliability
 - Hot Spot Study to identify and enhance bus operations throughout the city
 - Construction of a new traffic signal at Government Road and Brighton Avenue to improve intersection operations with a focus on bus speed and reliability
- » Became involved as a stakeholder in the Translink-led Burrard Inlet Rapid Transit Investment project.





Highlight

Paving the Way for More Active Transportation

With almost half of Burnaby’s community-wide carbon emissions coming from transportation, a key priority for the City is to encourage more active transportation and shift to other sustainable modes. As part of Burnaby’s Transportation Plan, the City is upgrading the current cycling network in the Edmonds Town Centre area and connecting the cycling network between Vancouver and SFU. Both projects aim to create a cycling network that is complete and safe, and designed to accommodate individuals of all ages and abilities (AAA).

To further improve Burnaby’s local and regional cycling network, the City is building a new pedestrian-cyclist overpass that spans the Trans-Canada Highway, creating a critical north-south link between regional networks such as the Central Valley Greenway and the BC Parkway. The overpass will also connect the trail network of three major parks—Burnaby Lake, Deer Lake and Robert Burnaby.

Other than mode shift, reducing the reliance on vehicle ownership is another way we can reduce our carbon footprint. To help reduce vehicle ownership and the number of vehicle trips made, the City introduced a Burnaby-wide car-sharing program.

Quick starts	Completion date	Status
1 Accelerate priority pedestrian improvements.	2030	On track
2 Design and begin construction of the core cycling network.	2023, Ongoing	On track
3 Expand transit priority measures.	2023, Ongoing	On track
4 Reduce barriers to multi-modal transportation options.	2023, Ongoing	On track

Zero-Emission Vehicles

As EV adoption continues to grow, the City is helping ensure the demand for charging will be met at home, in workplaces, and in commercial and public spaces.



Actions

- » Adopted the new Electrical (EV) Charging Requirements for New Non-Residential Development.
- » Continued planning and expanding the City's charging network for municipal and public use at civic facilities.
- » Initiated public engagement on Burnaby's Public EV Charging Strategy.





**Big
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Highlight

New EV Charging Requirements for New Non-Residential Development

With the adoption of EVs growing, demand for access to reliable charging is also growing. Along with home and public charging, access to workplace charging serves an important role in influencing EV adoption—especially for residents without access to home charging. It’s estimated that approximately 36% of Burnaby residents will require workplace charging within the next 20 years.

In July 2024, the City introduced a new requirement for non-residential (such as commercial and industrial) development that a minimum of 45% of parking spaces be equipped with an energized outlet capable of providing Level 2 or higher charging for an EV. Not only will this new requirement increase access to workplace and public charging, it also “future-proofs” buildings, creating equity in access to charging and supporting the expansion of Burnaby’s charging network.

This requirement complements the existing Zoning Bylaw—Off Street Parking, which requires 100% of parking stalls in new residential developments to be EV ready. Work on a Public EV Charging Strategy is underway to identify next strategic steps for public charging throughout Burnaby.

Quick starts	Completion date	Status
<p>1 Expand and monitor the City’s public charging network.</p>	Ongoing	
<p>2 Adopt non-residential EV charging requirements.</p>	2023	
<p>3 Plan and design for EV charging stations at civic facilities.</p>	Ongoing	

Zero-Emission Buildings — Net-Zero New

Through our Green Building Policy and Construction and Demolition Waste Diversion Bylaw, and by introducing new measures such as the Zero Carbon Step Code, we are working to reduce and ultimately eliminate new emissions sources from the construction of new buildings.

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Actions

- » Adopted the Zero Carbon Step Code.
- » Partnered with New Westminster to host a Builder and Designer Breakfast to enhance industry knowledge on the Zero Carbon Step Code, and on new energy-efficiency and decarbonization requirements.
- » Started developing a Zero Carbon Step Code guiding document to provide applicants with additional resources.
- » Achieved an 83% diversion rate across all building demolition types since introducing the Construction and Demolition Waste Diversion Bylaw, which exceeds the 70% required to receive a full deposit refund.
- » Continued our participation in the Building Benchmark BC (BBBC) project. Currently, over 110 buildings in Burnaby (including City-owned buildings, School District 41, and privately-owned buildings) are publicly disclosing energy use on the BBBC platform.





Big Move 6

Highlight

Zero Carbon Step Code

Emissions from buildings account for nearly 40% of our community emissions. Every high-efficiency, low-emission building we build today is one that will require less retrofitting in the future. In 2023, the provincial government made amendments to the BC Building Code and introduced the Zero Carbon Step Code (ZCSC). Working in tandem with the BC Energy Step Code (ESC), the ZCSC encourages GHG emission reduction while the BC ESC advances energy efficiency measures.

As part of the City’s commitment to climate leadership, we’re advancing the implementation timeline of the ZCSC. Beginning in 2024, these new changes apply to both small and large new construction, with residential home construction on an incremental schedule. To support the implementation of the ZCSC, the City has engaged with the building community, co-hosted a Builder Breakfast with New Westminster, undertook surveys and developed additional informational guides for the industry.

Beginning January 1, 2024, all new Part 3 buildings (C, D and E occupancies) must meet Zero Carbon Step Code, EL-4 (Zero Carbon Performance).

Beginning January 1, 2024, all new Part 9 residential buildings must meet Zero Carbon Step Code, EL-3 (Strong Carbon Performance)

Beginning January 1, 2025, the Zero Carbon Step Code minimum requirements for Part 9 residential buildings will increase from the EL-3 (Strong Carbon Performance) to EL-4 (Zero Carbon Performance).

Quick starts	Completion date	Status
1 Accelerate the roadmap to net-zero emissions from buildings.	2025	Complete
2 Advance regulations that promote net-zero buildings: thick walls.	2020	Complete
3 Remove barriers to low-carbon construction methods.	Ongoing	On track
4 Advance the City’s construction and demolition policy.	2023	Complete

Zero-Emission Buildings — Retrofits

Existing buildings are one of the largest sources of carbon emissions in Burnaby. Encouraging homeowners to make energy efficiency upgrades and reduce emissions is one of the most significant climate-action challenges for local governments.

**Big
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7**

Actions

- » Completed the Zero Emissions Building Retrofit Strategy.
- » Launched the Climate-Friendly Home Upgrades education campaign, including:
 - developing a dedicated webpage
 - utilizing CityConnect to raise awareness on retrofit benefits
 - designing printed materials
 - organizing an online heat pump webinar
- » Replaced aging boilers, furnaces and other heating and cooling systems with high-efficiency equipment in a number of civic facilities.
- » Continued to explore options to reduce barriers and encourage heat pump installations in the community.





Big Move 7



Highlight

Zero-Emissions Building Retrofit Strategy

In 2023, the City introduced the Zero-Emissions Building Retrofit Strategy. The Strategy builds on the recommendations of the Zero-Emission Building Retrofit Task Force, which was part of the Urban Resilient Futures Initiative and facilitated by Simon Fraser University’s Morris J. Wosk Centre for Dialogue.

The Strategy looks at the community’s challenges and opportunities, identifies how the City can help residents understand the process of retrofitting their homes, and illustrates actions we will take to help homeowners overcome barriers to conducting retrofit work. It aims to establish a pathway to support large-scale adoption of energy efficiency upgrading and low-carbon fuel, and to accelerate a complete transition to zero-emission heating, cooling and hot water systems in Burnaby’s existing buildings.

In the Strategy, four key objectives are outlined to help homeowners overcome barriers in conducting retrofit work:




- » Education and outreach
- » Policy and bylaws
- » Incentives
- » Advocacy

The Strategy also provides an illustrative example of how different tools can assist residents in different stages of their retrofit journey.

Since adopting the Strategy, the City has launched the Climate-Friendly Home Upgrades education campaign, which includes a variety of online and printed resources. We are currently working to reduce other barriers, including:

- » streamlining the permitting process
- » updating policy and bylaws to support heat pump installations
- » looking at providing incentives to help support heat pump installation and electrical service upgrades

Through the Building Retrofit Strategy, the Zero Carbon Step Code and the Energy Step Code, the City aims to reduce operational emissions in both existing and new buildings.

Quick starts	Completion date	Status
1 Transition to heating and cooling permits.	Underway	 On track
2 Advance low-carbon programs for existing buildings.	Ongoing	 On track
3 Develop a citywide zero-emission building retrofit strategy.	2023	 Complete

Taking Action Together

Climate change is a big, global problem. It feels like anything we do at home or in our communities won't have much of an impact. But little by little, every action we take individually can have a big impact collectively. Here are things you, your family, your strata, your school or your business can do to take climate action and be part of the solution.

- » Be a climate leader! Inspire your friends and neighbours by sharing stories and examples of energy-conscious actions you've taken. We learn best by example and from those around us.
- » Lower your energy use by making simple, low-cost home upgrades. Start by sealing up drafty doors and windows and adding insulation to prevent heat-loss. And install a programmable thermostat so you're not wasting energy while you're away or asleep.
- » Thinking about upgrading your home's heat source or adding a cooling system? Consider a heat pump! A heat pump is a very efficient way to keep your home comfortable in the summer and warm in the winter. And there are financial incentives and resources available to help you make the switch!
- » Get active! Can you get where you need to go without using your car? Burnaby's network of sidewalks, cycle tracks and multi-use pathways is expanding every year. Walk, roll or cycle to reach your destination or get to a transit stop or station. You'll benefit from lowering your emissions, improving your fitness and getting more acquainted with your neighbourhood.
- » Time for a new vehicle? Make the switch to an EV! Every year, there are more and more choices, and there are federal and provincial incentives available to offset the cost of an EV purchase. Plus, Burnaby's network of charging stations continues to grow helping relieve any "range anxiety" you may have.
- » If you love to garden, consider planting native plants that are suitable for this growing region, require less water and contribute to biodiversity.
- » Dispose of all green waste—including house plants, yard trimmings and garden refuse—in green bins or at the Eco-Centre. Never dump green waste in a ravine, park or empty lot as it may contribute to the spread of invasive plants and unstable ravine banks.



- » If you're in the market for a new condo, townhouse or commercial space, choose a "green building." Look for a building that has been built to the BC Energy Step Code 2 or higher and uses low-carbon heating, cooling, hot water and cooking systems.
- » Volunteer with organizations dedicated to improving our ecosystems. Streamkeepers, for example, focuses on improving the health of streams and rivers in our community, and is involved in activities such as removing invasive plants, planting native trees and shrubs in sensitive areas, and reporting on occurrences of pollution to waterways.
- » If you live in a home or strata with watercourses running through or adjacent to your property, find out from the City what you can do to protect and enhance them. Removing invasive plants from channel banks and restoring them with native vegetation can increase bank stability, create shade and improve ecosystem health and resiliency—plus, the benefits extend beyond property boundaries as they also enhance fish habitat farther downstream.
- » Participate in Environment Week events throughout Burnaby, such as invasive species plant pulls. Join other residents in removing invasives such as English Ivy and Himalayan Blackberry from Burnaby parks.

While the City of Burnaby is working hard to reduce emissions from City sources and provide leadership through policy and education, only by working together with the community and individual citizens can we make real change. Please join us on this journey toward a low-carbon future and creating a healthier environment for us all.

