



Local Government Climate Action Program Survey Submission Report

North Vancouver, City of

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Question	Answer
1. Does your local government or Modern Treaty Nation have a climate action plan or strategy?	Yes
1.a. Indicate the date the plan was adopted.	April, 2010
1.b. Include a link to the document (URL) or webpage.	https://www.cnv.org/-/media/City-of-North-Vancouver/Documents/Living-City/Community-Energy-and-Emissions-Plan.ashx
2. For the calendar year 2021, did your local government or Modern Treaty Nation measure and publicly disclose corporate greenhouse gas (GHG) emissions?	Yes
2.a. Include a link to the document (URL) or webpage where it is disclosed.	https://www.cnv.org/Your-Government/Living-City/Climate-Action/Corporate-Climate-Action-Plan
2.b. Report emissions based on Services Delivered Directly (in tCO ₂ e).	2342

2.c. Report emissions based on Contracted Services (in tCO2e).	120
2.d. Report emissions based on Total Corporate Emissions (in tCO2e).	2462
3. For calendar year 2021, did your local government or Modern Treaty Nation measure and publicly disclose a community-wide emissions inventory?	Yes, we do our own community-wide emissions inventory
3.a. What year is the data from?	2020
3.b. How frequently is data collected (i.e., every 5 years)?	every year
3.c. What methodology is used (e.g. consumption based)?	Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) - Basic, and Consumption-Based Emissions Inventory
3.d. Include a link to the document (URL) or webpage where it is disclosed.	https://www.cnv.org/your-government/living-city/environment-strategy
3.e. What are your total community-wide emissions (in tCO2e)?	259422
3.f. What are the sectoral emissions from energy use in buildings (in tCO2e)?	110903

3.g. What are the sectoral emissions from energy use in transportation (in tCO ₂ e)?	145770
3.h. What are the sectoral emissions from methane at landfills (in tCO ₂ e)?	2696
3.i. What are the indirect emissions from electricity used in the community (in tCO ₂ e)?	3752
3.j. What is the energy use from electricity (in kWh)?	353019
4. Is your local government or Modern Treaty Nation tracking progress on its community-wide GHG reduction target?	Yes
4.a. Please provide your reduction target(s).	80% and 100% or net zero
4.b. Please provide the target year.	2040 and 2050
4.c. Please provide the baseline year.	2007
4.d. Please provide the link(s) to the document(s) or website if available.	https://www.cnv.org/-/media/City-of-North-Vancouver/Documents/Climate-Change-Adaptation/Climate-Action-Notice-of-Motion-February-25-2019.pdf

5. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Buildings

Energy Step Code Implementation

The City is a leader in energy efficiency requirements for new construction, beginning with the Energy Efficient Buildings Initiative to incentivize high energy performance standards in 2011. In 2017, the City became one of the first municipalities in BC to adopt the Energy Step Code for all new buildings. Currently, the City requires the second highest step of the Step Code for all new developments, representing a 40% improvement in energy efficiency above BC Building Code requirements.

Low Carbon Compliance Pathway

In 2021, the City implemented an Energy Step Code low carbon compliance pathway for new homes. To meet the requirements, homes must be built either to the highest step (Step 5) of the Step Code, or to Step 3 with low carbon mechanical systems and achieve a modeled greenhouse gas intensity of no more than 3 kg CO₂e/m²/year. As a result, the majority of homes built or proposed in the last year have been designed with electric space heating and domestic hot water systems, producing between 70 and 100% fewer greenhouse gas emissions than homes built to the same efficiency standards with natural gas mechanical systems. The low carbon compliance pathway serves to further the market transformation needed to transition to low carbon buildings in the Province and support growth in the heat pump market.

Jump on a New Heat Pump Program

In collaboration with the Districts of North and West Vancouver and with financial support from BC Hydro, the City launched the Jump on a New Heat Pump program in 2021 to promote uptake of fuel-switching heat pump retrofits in homes across the North Shore. The first phase of the program consisted of outreach to contractors to connect them with available training resources, and a consumer awareness campaign including an illustrated explainer video, five homeowner guides, social media promotion and two homeowner webinars. In 2022, the program entered a second phase, including the launch of a new virtual home energy check-up service and the development of testimonial videos to increase consumer awareness and expand supports to homeowners pursuing heat pump retrofits. Since the launch of the Jump on a New Heat Pump program, the City has provided seventeen top-up rebates for electric heat pumps replacing natural gas systems.

Building Benchmark BC Initiative

The City is one of sixteen partner jurisdictions in the Building Benchmark BC initiative which aims to promote energy conservation and efficiency improvements in publically and privately-owned buildings across the province. Participants in the initiative voluntarily report and disclose building energy and carbon performance for the results to be compared with similar participating properties and inform energy management improvements and building upgrades. The City benchmarks the performance of nine civic buildings and promotes the participation of private property owners in the city.

	<p>Benchmarking has shown to be an effective tool to reduce energy use and greenhouse gas emissions from buildings.</p>
<p>6. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Transportation</p>	<p>Mobility Strategy The Mobility Strategy is the City’s updated long-range transportation plan that was endorsed by Council in April, 2022. This ambitious roadmap helps guide how we will plan, design, maintain, and invest in our streets over the next decade. The Strategy puts significant focus on reducing the carbon emissions from the transportation system, through a wide range of actions intended to reduce vehicle trips while making it easier and more comfortable to get around by walking, rolling, and transit. For vehicle trips that are still necessary, the plan defines actions to expedite the transition to zero-emission vehicles. The targets of the Mobility Strategy include:</p> <ul style="list-style-type: none"> o Increasing transit and active mode share to 50% of our trips (currently around 40% sustainable mode share); o No increase in vehicle trips during peak hours (regardless of population and employment growth); and o Reducing transportation emissions to achieve a 45% reduction below 2010 levels from all sources in the City. <p>Lime E-bike Share Program Through partnership with the District of North Vancouver, the City is working with Lime to operate an e-bike share program on the North Shore. This is the first e-bike rental in the province of BC and provides residents and workers another option to tackling the hilly terrain without the need of using a vehicle. The program has been extremely successful by most metrics including an average of 4,000 trips per month over the first year of operation, resulting in up to 24,000 kg CO2e removed from the air.</p> <p>Electric Vehicle Strategy Implementation In 2018, the City adopted an Electric Vehicle (EV) Strategy to accelerate the transition to zero emission vehicles through 30 priority actions. Since its adoption, significant progress has been made in implementing the EV Strategy. The City has adopted EV-Ready requirements for all new construction, to ensure new residential and non-residential buildings are equipped with electrical infrastructure capable of supporting EV charging. With the support of funding from Natural Resources Canada and CleanBC, the City has expanded its public charging network to include ten Level 2 charging points and two fast charging stations, fulfilling the short-term targets set out in the EV Strategy. To demonstrate leadership, the City has begun transitioning its fleet vehicles to electric alternatives and is in the process of determining the required electrical infrastructure upgrades to enable the transition of medium and heavy duty fleet vehicles. In addition, the City partnered with Emotive, Metro Vancouver’s EV outreach campaign to host a number of EV outreach booths at public events and the first EV test drive event on the North Shore.</p> <p>Burrard Inlet Rapid Transit In 2019, North Shore municipalities and First Nations were successful in receiving funding from Western Economic Diversification (now</p>

	<p>PacifiCan) to undertake a feasibility study and economic impact assessment on Burrard Inlet Rapid Transit to meet the identified need to connect the North Shore with rapid transit to the rest of the region. This work was completed in the fall of 2021 and was an essential component to building the case for this project being prioritized in regional transit investments. Thanks to this unique pre-business case work being completed, Burrard Inlet Rapid Transit was identified in TransLink’s recently adopted Regional Transportation Strategy (Transport 2050), and was also recently identified in the T2050: 10-Year Priorities plan that unveils the first wave of investments. This major rapid transit investment will provide people on the North Shore a competitive and reliable way to connect with the rest of the region. An investment like Burrard Inlet Rapid Transit is expected to remove 50,000 vehicle trips daily in the year 2050 (the analysis year), resulting in a substantial decrease in congestion and greenhouse gas emissions.</p>
<p>7. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Community</p>	<p>Growing the Urban Forest The City enjoys a diversity of urban trees that play a critical role in providing a healthy and sustainable community, and has undertaken a number of initiatives to strengthen and grow the urban tree canopy. Since 2019, the City has planted approximately 4,000 trees on public property, with hundreds more added each year. Through the Living City Tree Planting Program, the City directs capital funds to maximize tree canopy cover in the street network by infill-planting within available boulevard space throughout the City.</p> <p>The City protects and expands the urban canopy on private developments sites using Development Permit Guidelines, streamside protection regulations and sustainable development guidelines. In 2022, the City introduced a new bylaw to regulate the management of trees on private property in multi-family residential, commercial, civic, industrial and mixed employment areas in the City. Trees at or greater than 20 cm diameter at breast height will now require a permit for removal, regardless of whether active development is taking place. Further, the City is in the process of developing an Urban Forest Management Strategy to provide long-term strategic guidance for the protection, maintenance and growth of the tree canopy in the city.</p> <p>Community Energy System Decarbonization The City’s Community Energy System (CES), operated by the Lonsdale Energy Corporation (LEC), provides heating for 99 buildings in the city through a highly efficient network of mini-plants and underground pipes. The heat supplied by the CES is generated by high efficiency natural gas boilers, supplemented by a number of low-carbon energy sources including a hydronic solar thermal panel array, geo-exchange field and heat recovery from cooling processes. LEC has been actively pursuing opportunities to incorporate additional low-carbon energy sources to offset energy that would otherwise be provided by natural gas boilers, and begun planning for decarbonisation of the CES to align with the City’s emissions reduction targets.</p> <p>In 2017, LEC entered into an agreement with the Greater Vancouver Sewerage & Drainage District to incorporate heat recovered from</p>

treated sewerage effluent at the North Shore Wastewater Treatment Plant (NSWWTP) into the DES when it is operational. LEC is investigating a number of technologies that would provide low-carbon energy for the DES including digital boilers, server/data centre heat recovery, sewer heat recovery and ocean source heating, as well as thermal storage to maximize low-carbon energy sources. In the past year, LEC agreed with FortisBC to purchase Renewable Natural Gas at two of its plants for the 2022 calendar year and identified a significant funding opportunity through the CleanBC Communities Fund to support a renewable energy project. LEC is continuing to develop a decarbonisation plan to map and project emission reductions based on existing renewable energy sources, the NSWWTP, a Sewer Heat Recovery Facility with grant support and future implementation of other technologies.

Organic Waste Diversion

The City continues to make progress in diverting food scraps and other organic material from the waste stream through the curbside Green Can program, along with implementation of bi-weekly garbage collection in 2014. Since that time, the City's residential refuse disposal tonnage had been steadily decreasing and in 2021, the City's overall diversion rate remained high at 73%, compared to the regional average of 64%.

The City provides educational resources to promote food waste reduction and appropriate disposal of organic waste through backyard composting, the City's green can program and organics collection contracts for businesses and multi-family buildings. Further, the City promotes Metro Vancouver's zero waste educational campaigns including "Love Food Hate Waste" to reduce avoidable food waste at home.

8. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Climate Resilience

Asset Management Strategy

The City is developing an Asset Management Strategy to ensure reliable and sustainable delivery of services that support the health and well-being of residents at the best value. This Strategy will provide guidance for decision-making and investment in City assets and improvement in asset management practices. The Strategy defines assets as “physical components of a systems that have value, are used to provide services, and have an economic useful life greater than one year”. The approach to asset management in the Strategy is guided by the Official Community Plan and Council’s Strategic Plan. Subsequent phases of the Asset Management Strategy in the near future will include a climate risk and vulnerability assessment of the City’s assets and a natural asset inventory and valuation.

Integrated Stormwater Management Plan Implementation

The City’s Integrated Stormwater Management Plan (ISMP) was adopted in 2016 with the goal of improved watershed health. The ISMP outlines key objectives to protect and enhance watershed health, reinforces existing policies, and emphasizes the importance of implementing these measures for both the public and private domain. The ISMP responds to a number of strains on watershed health, including climate change and anticipated warmer temperatures, more rainfall, seasonally heavier rainfall and increase in mean sea level. The ISMP has been implemented through a number of policies and programs to mitigate impervious surfaces and improve fish habitat and passage. The City encourages a low-impact development approach to management stormwater runoff, and has requirements for stormwater source controls for all new development. The City has also prioritized the construction of raingardens, with over 80 installations since 2004 intercepting pollutants and protecting physical habitats by limiting peak flows and fine sediment loads. In future years with more extreme rainfall events, stormwater source controls and green infrastructure will become increasingly important.

North Shore Sea Level Rise Risk Assessment and Adaptive Management Strategy

In collaboration with the District of North Vancouver, the District of West Vancouver, Squamish nation, Vancouver Fraser Port Authority and North Shore Emergency Management, the City developed a the North Shore Sea Level Rise Risk Assessment and Adaptive Management Strategy. Using current climate projections, the Strategy identified coastal flood hazards and assessed areas of vulnerability and risk as a result of anticipated sea level rise across the North Shore. The Strategy identified nine comprehensive adaptation planning zones on the North Shore where flooding could extend well beyond the first row of development and where future collaborative planning would be beneficial. Adaptation plans for these priority zones have been established and the City is working with North Shore partners to continually refresh these plans.

<p>9. Which elements of your community's current official community plan (OCP) (or other relevant strategies, policies and/or plans) support the creation of more complete, compact communities?</p>	<p>The City's Official Community Plan provides specific goals, objectives, and actions that contribute towards creating more complete and compact communities.</p> <ul style="list-style-type: none"> • OCP Goal 1.1: Develop a compact, complete community that meets the needs of its diverse residents and businesses. • OCP Objectives: <ul style="list-style-type: none"> 1.1.1 Plan for growth in the City's population, dwelling units and employment in keeping with the projections in Metro Vancouver's Regional Growth Strategy; 1.1.2 Align growth with the development of community amenities and infrastructure; 1.1.3 Balance the number of jobs to number of residents employed in the labour force in the City, reducing the need for longer commute distances for City residents; 1.1.4 Support the role of the Lonsdale Regional City Centre as the urban core of the City, in part, by locating high trip-generating uses such as high density residential and commercial uses there; 1.1.5 Provide space for commercial uses in mixed-use developments to support employment and economic development; 1.1.6 Through provisions in the Zoning Bylaw, allow for strategically located neighbourhood commercial uses to provide commercial amenities such as local cafés, corner stores or small scale grocery stores close to residences; and, 1.1.7 Allow for accessory uses, such as home-based businesses and child care, in residential areas. • The City's Housing Action Plan provides actions to support a diversity of housing forms, types, and affordability across the housing continuum from homelessness to homeownership to support housing options for all ages, incomes, and abilities within the City. Providing a range of housing forms and types contributes to the creation of complete and compact communities by ensuring a variety of housing needs are met within the community and providing flexibility for people to move along the housing continuum. The City's Housing Needs Report also highlights the need for a range of housing types/forms and supporting amenities that contribute to the creation of complete communities. • The City's Mobility Strategy has a number of strategies and actions that contribute to creating complete, compact communities, with a particular focus on making it easier for everyone to choose active and sustainable transportation choices, and reclaiming more street space for people and nature. • The City's Parks Master Plan guides the future planning, design, protection and maintenance of new and existing park infrastructure and amenities in both the natural and built environments. It identifies opportunities to increase the efficiency and coordination of parks planning and design; to acquire strategic pieces of parkland to accommodate increased growth and demand; and to improve the protection of environmentally sensitive areas and greenway connections.
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<p>10. What actions has your local government or Modern Treaty Nation taken to increase community completeness and compactness since 2020 (e.g. urban containment boundary, increasing density by allowing secondary suites and laneway or carriage housing options)?</p>	<ul style="list-style-type: none"> • Duplex Special Study – On November 22, 2021. Council approved updates to the City’s Official Community Plan and Zoning Bylaw to permit duplex development on 88 lots within the City that previously only allowed single-family development. • Coach House Updates – On March 7, 2022, Council approved updates to the City’s Coach House Development Permit Guidelines and a number of zoning requirements to allow for a more streamlined and accessible process for those pursuing coach house development. • Mobility Strategy – On April 11, 2022, Council approved the City’s new Mobility Strategy which sets the City’s vision and priority actions for the planning of streets and transportation over the next 10 years. • The City’s Open Streets Initiative began as a recovery response to the COVID-19 pandemic and focuses on providing spaces for people to connect in a safe way by transforming spaces along City roadways into public spaces, patios, parklets, art displays, etc.
<p>11. What data would be most valuable to your local government or Modern Treaty Nation in decision-making related to the creation of complete, compact communities?</p>	<p>More research/evidence/data that demonstrates the benefits of complete, compact communities with data at the City or neighbourhood.</p> <ul style="list-style-type: none"> • Health indicators and data (e.g. health cost reductions, improved health outcomes) • Economic and business prosperity data • Commuting/transportation data • GHG outputs of different modes (e.g. walking, transit, driving) and building types • Food access data (e.g. food deserts, quality food)

<p>12. From 2021 to now, has your local government or Modern Treaty Nation taken any action(s) to address climate impacts?</p>	<p>North Shore Sea Level Rise Risk Assessment and Adaptive Management Strategy Implementation Adaptation plans for the priority zones identified in the Strategy have been established and the City is working with North Shore partners to continually refresh these plans.</p> <p>North Shore Extreme Heat Strategy Development North Shore Emergency Management, the emergency management department for the City and Districts of North and West Vancouver, recently developed a North Shore Extreme Heat Strategy, following the extreme weather events that occurred in 2021. This strategy works as a high-level roadmap and highlights the gaps in the 2021 response, consolidates wise practice, creates mechanisms for actionable change and redefines operational response to meet the increased needs of extreme weather events. The Strategy consists of four components:</p> <ol style="list-style-type: none"> 1) North Shore Extreme Weather After Action Review 2) Extreme Heat Recommendations and Implementation Work Plan 3) North Shore Extreme Heat Response Plan 4) Extreme Heat Communications Plan <p>The four components of the Strategy act together to form a robust structure: The Extreme Weather After Action Review provides an opportunity to share knowledge among public safety partners; the Extreme Heat Recommendations and Implementation Work Plan itemizes future actions and promotes transparency and accountability; the Extreme Heat Response Plan articulates municipal response activities; and, the Extreme Heat Communications Plan ensures information is shared in a timely and effective manner.</p> <p>Asset Management Strategy Development The City is developing an Asset Management Strategy to plan for reliable and sustainable delivery of services in the face of additional strain on infrastructure as a result of climate impacts. The Strategy will outline the City's steps to proactively repair or replace aging assets informed by a climate risk and vulnerability assessment.</p>
<p>13. Has a climate risk and vulnerability assessment (or similar assessment) been undertaken for your local government or Modern Treaty Nation?</p>	<p>Yes</p>
<p>13.a. Please provide a link to the document (URL).</p>	<p>https://www.cnv.org/-/media/City-of-North-Vancouver/Documents/Climate-Change-Adaptation/ICLEI-Milestone-2-Report---Climate-Changes-and-Impacts-for-the-City-of-North-Vancouver.PDF</p>

14. What are the three most significant climate hazards faced by your jurisdiction	"Coastal flooding, storm surge events and/or other coastal hazards", "Extreme heat and heat stress", "Wind, rain, and other storm events", "Overland flooding", "Ecological, cultural and/or human health impacts (examples of cultural impacts include threats to identities, languages, and livelihoods; examples of ecological impacts include biodiversity loss, erosion, invasive species, ecosystem changes)", "Wildfire", "Water shortage", "Extreme cold, snow and ice"
15. Are you responding to this survey on behalf of a Modern Treaty Nation?	No
16. Based on the hazard you indicated as most significant in question 14, as a local government, which groups are most exposed/vulnerable to the impacts of that climate hazard?	"Low-income households", "Indigenous peoples", "People experiencing homelessness"
17. Based on the hazard you indicated as second most significant in question 14, as a local government, which groups are most exposed/vulnerable to the impacts of that climate hazard?	"Low-income households", "People experiencing homelessness", "Seniors"
18. Based on the hazard you indicated as third most significant in question 14, as a local government, which groups are most exposed/vulnerable to the impacts of that climate hazard?	"Low-income households", "People experiencing homelessness"
19. Select the top three factors your local government or Modern Treaty Nation needs most to increase the capacity to adapt to climate impacts and build community resilience.	"Increased funding", "More partnerships and collaboration across levels of government", "Increased staff capacity"
20. How does your local government or Modern Treaty Nation ensure equitable access to, and distribution of, climate action opportunities and benefits?	"By engaging with equity seeking groups/frontline communities most impacted by climate change", "By designing and implementing climate actions that target the barriers to access and resilience faced by the equity seeking groups/frontline communities most impacted by climate change"
21. Do the climate action plan(s) and priorities of your local government or Modern Treaty Nation align with the climate action plans and priorities of senior levels of government?	"Yes, we align climate action plan(s) and priorities with the federal 2030 Emissions Reduction Plan", "Yes, we align climate action plan(s) and priorities with the provincial CleanBC Roadmap to 2030", "Yes, we assess our plans and priorities for multilevel alignment", "Yes, we collaborate with other communities to align with climate action plans and priorities of senior levels of government"

22. Is your local government a signatory to the B.C. Climate Action Charter or a Modern Treaty Nation?	Yes
23. To demonstrate commitment to climate action, climate investments (i.e., matching funding or in-kind contributions) equivalent to 20% of the provincial funding received are required of local governments and Modern Treaty Nations. The intent is to show past, current, and future investments in climate action and create awareness and education.	"Staff time", "Climate or energy studies and/or assessments", "Climate or energy plans, policies and/or strategy development", "Climate resilient infrastructure and/or capital project(s)"
24. Please provide your (or survey primary contact's) first and last name.	Larisa Lensink
25. Please indicate your (or survey primary contact's) position with your local government or Modern Treaty Nation.	Planner 2, Environmental Sustainability
26. Please provide your (or survey primary contact's) business email address.	llensink@cnv.org
27. Please provide your (or survey primary contact's) business phone number.	6049904240



Local Government Climate Action Program Attestation Form

Instructions for the Attestor:

1. Complete and sign this form by filling in the fields below.
2. Email the completed and signed form to LGCAP@gov.bc.ca.

I, the Chief Financial Officer, or equivalent position, of The City of North Vancouver (name of local government) confirm the following:

1. That Local Government Climate Action Program funding has been, or will be, allocated to climate action.
2. That if funds are held in reserve, they will be spent by the end of March 2025.
3. That a completed and signed version of this form will be submitted by email to the Climate Action Secretariat, Ministry of Environment and Climate Change Strategy by July 29, 2022.
 - a. If council approval is required, it will be submitted no later than September 30, 2022.
4. That a completed and signed version of this form will be publicly posted by September 30, 2022.
5. That a completed and exported version of the program survey (submitted online) will be publicly posted by September 30, 2022.

Attested to by me at (name of local government) The City of North Vancouver
on (date) July 29 2022

Signature of Attestor:

Printed Name of Attestor:

Larry Sawrenko

Title or Profession of Attestor (i.e. Chief Financial Officer or equivalent position):

Chief Financial Officer

Telephone Number of Attestor:

604-982-8343

Email Address of Attestor:

lsawrenko@cnv.org

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Climate Change Strategy**

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