



Local Government Climate Action Program Survey Submission Report

Richmond

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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.	Adopted by City Council on February 14, 2022.
1.b. Include a link to the document (URL) or webpage.	https://www.richmond.ca/__shared/assets/ceepreport61163.pdf
2. For the calendar year 2021, did your local government or Modern Treaty Nation measure and publicly disclose corporate greenhouse gas (GHG) emissions?	No, corporate GHG emissions are not currently being measured, but we are currently undertaking one and it will be complete in the next year
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?	2017

3.b. How frequently is data collected (i.e., every 5 years)?	Data compiled and extrapolated by Licker Geospatial (2019-2021), who were retained by the City to support modeling and forecasting of citywide GHG emissions concurrent with development of the City's updated Community Energy and Emissions Plan 2050.
3.c. What methodology is used (e.g. consumption based)?	Operational emissions and energy use, with similar methodological approach as CEEI inventories.
3.d. Include a link to the document (URL) or webpage where it is disclosed.	https://www.richmond.ca/__shared/assets/ceepreport61163.pdf
3.e. What are your total community-wide emissions (in tCO ₂ e)?	1036770
3.f. What are the sectoral emissions from energy use in buildings (in tCO ₂ e)?	429245
3.g. What are the sectoral emissions from energy use in transportation (in tCO ₂ e)?	585184
3.h. What are the sectoral emissions from methane at landfills (in tCO ₂ e)?	22341
3.i. What are the indirect emissions from electricity used in the community (in tCO ₂ e)?	48800
3.j. What is the energy use from electricity (in kWh)?	1544394

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).	50% below 2007 levels by 2030, and net zero GHG emissions by 2050.
4.b. Please provide the target year.	2030 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.richmond.ca/__shared/assets/ceepreport61163.pdf
5. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Buildings	<p>Initiatives:</p> <p>1) Policy development and industry engagement was initiated in 2021 on proposed Building Regulation Bylaw Amendment for updated BC Energy Step Code requirements that would be effective in July 2022. Depending upon the type of building, a one- or two-Step relaxation in Bylaw Requirements would be available for buildings installing, or connecting to, a low carbon energy system. Staff also provided input to Building and Safety Standards Branch staff in 2021 on the Province’s proposed opt-in carbon pollution standard, and on integrating these requirements with the BC Energy Step Code.</p> <p>2) Expansion of district energy (Lulu Island Energy Company) continued in the City Centre, Oval District and Alexandra service areas. Significant progress was achieved in 2021 on a capital expansion plan and financing scheme for a new renewable energy center (via sewer heat recovery) to provide low-carbon space heating and domestic hot water to larger residential and commercial buildings within the City Centre by 2025.</p> <p>3) In 2021, Council endorsed a High Performance Buildings Policy for new single-detached and duplex homes, with floor area exemptions available for buildings achieving Step 4, Step 5 and Passive House certified levels of performance (i.e., a 5% increase in floor area for Steps 4 and 5, and a 10% increase for Passive House). Additionally,</p>

	<p>with these incentives, a Step 4 home qualifies for a 50% permit fee reduction, with a 100% permit fee reduction available for homes achieving Step 5 or the Passive House standard. [Link to Report: https://www.richmond.ca/agendafiles/Open_Council_2-22-2021.pdf].</p> <p>4) Participation in years 2 and 3 of Building Benchmark BC (BBBC) initiative. City of Richmond supports this program with direct and in-kind funding.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • BC Energy Step Code: Successful industry engagement in 2021 (virtual Builder Breakfasts for Part 9 homebuilders, and UDI-Richmond Developer workshops for Part 3 buildings) on proposed Step Code requirements for new buildings, earmarked to be in force on July 2022. Engagement also included review of the City’s OCP development permit guidelines regarding the form and character of buildings achieving the top level of energy performance. • District Energy: Alexandra DEU 2.4-million ft2 in total, with 26,649 ft2 added in 2021, and 7,861 tonnes of CO2e avoided to date. Oval District DEU 2.9-million ft2 in total, with 279,763 ft2 added in 2021, and 2,123 tonnes of CO2e avoided to date. • Other progress on building-related emissions: The total number of residential electricity accounts in Richmond increased by 24% between 2007 and 2018 (latest data year available), but total electricity consumption declined by 3%, reflecting increasingly efficient use of electricity. Total natural gas used in single-detached homes declined by 7%, despite the number of natural gas accounts increasing by 6% during the same period, indicating improvements in energy efficiency and a decline in average GHGs emitted per household. • Building Benchmark BC (BBBC): The City expanded the number of civic buildings and facilities reported through BBBC from 21 buildings in reporting year 2020 (2019 benchmarked data); adding 15 more in 2021, for a total of 36 buildings reported in 2021 (2020 benchmarked data). • Zero emission mobility and new buildings: New residential buildings must comply with a Zoning Bylaw requirement for Level 2 electric vehicle charging infrastructure readiness for all non-visitor parking stalls. For larger developments, the City also facilitates transition to electric mobility and bicycles by securing obligations to construct mobility hubs with associated EV and electric bike charging.
<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>Initiatives:</p> <p>1) Public EV charging expansion:: design, construction and installation underway in 2021 on the City’s largest expansion of public EV charging to date. By the end of 2022, there will be 54 Level 2 charging ports at 22 civic locations (i.e. 28 new ports), plus new DC fast chargers at four locations. Fifteen of these locations will also have at least one parking stall that is fully accessible, based upon the latest best-practice design standards for accessible parking.</p> <p>2) Capstan Canada Line Station: in 2021 design begins on this new rapid transit station, financed by developer contributions collected by</p>

the City (\$32-million). Finalized plans will be forwarded to TransLink for construction in 2022, and anticipated completion in Fall 2023. This new station is a key component in supporting transit-oriented development within the City Centre,

3) Update of Cycling Network Plan: work began in 2021 on a 15-year implementation strategy for expansion and upgrade of Richmond's active transportation network, with proposed capital expenditures supporting three phases of staged improvements to Richmond's active mobility network. The objective is to have this plan considered by Council in mid-2022.

4) Expansion of Active Transportation Network (starting in 2021)

- River Parkway (Gilbert Road to Cambie Road) new protected bike lanes
- Odlin Road neighbourhood bikeway (Odlin Road to Brown Road)
- Charles Street multi-use pathway (Charles Street to Bridgeport Station entrance)
- Southbound Garden City Road multi-use pathway (Lansdowne Road to Westminster Hwy)
- Crosstown Neighbourhood Bikeway (Railway Avenue to Garden City Road)
- Woodward-Saunders neighbourhood bikeway (Railway Avenue to No. 4 Road)

Outcomes:

- As of December 31, 2020, just over 2,500 electric vehicles were registered to Richmond addresses, constituting 2.3% of the City's passenger vehicles, up from 1.5% at the end of 2019. By comparison, EVs comprised 1.6% of BC's total passenger vehicles at the end of 2020.
- New bus loop at the Richmond-Brighouse Canada Line Station opened at the end of 2021, serving six routes and 12,000 riders each weekday (based upon pre-COVID ridership).
- Council awarded contract for a pilot public e-scooter and e-bike share program in September 2021; Lime will launch service in May 2022 [we've noted it here, so can delete it above, I think].
- Annual funding for free citywide events encouraging bicycling as a safe and convenient travel mode (community bike tour, Go by Bike Week, Bike to Shop Days, bike maintenance courses).
- Annual delivery of free cycling skills education to all Grade 6 and 7 students in 38 public elementary schools in Richmond over a 2-year period.

<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>Initiatives:</p> <p>1) Community Energy and Emissions Plan (CEEP) 2050: A final phase of community engagement was successfully completed in August-September 2021 on proposed mitigation actions within eight strategic directions that will set Richmond on a path to achieve 50% reduction in community GHG emissions by 2030, and reach net zero emission by 2050. The CEEP 2050 plan was completed in December 2021, and was reviewed and endorsed by City Council on February 14, 2022.</p> <p>2) Advancing a Circular Economy in Richmond: In May 2021, the City of Richmond successfully applied to join the Circular Cities and Regions Initiative (CCRI), which is a peer-to-peer network of 15 municipalities from across Canada, engaging and sharing best practices on the circular economy.</p> <p>3) Circular Economy criteria for City purchasing activities: In January 2021, City Council integrated circular economy criteria into its purchasing policy. The revised policy includes a City definition of ‘circular economy’ that allows staff and stakeholders to make more informed decisions and better understand how to drive suppliers towards circularity, while achieving City's goals and strategies.</p> <p>4) Single Use Plastics Ban: Council adopted a ban on single-use plastics in 2021. The ban will enter into force on March 27, 2022.</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • Community Energy and Emissions Plan 2050 engagement results: To inform development of the CEEP 2050 plan, three phases of community and stakeholder engagement were completed between May 2019 and September 2021, with 775 people participating in surveys, and over 1,000 people taking part in a variety of public events, including community and stakeholder workshops. Input and feedback has had a positive, direct impact in shaping the plan’s strategic directions and implementation actions. • Local momentum in advancing a Circular Economy: Interest by City staff and the community is growing in terms of supporting zero waste initiatives and understanding how circular economy principles and approaches can be used to reshape procurement criteria, and transition ‘take-make-use-dispose’ linear processes into circular ones. The City has adopted a learn-by-doing approach to integrating circularity into procurement processes, and to support this, work began in 2021 on a Circular Economy Roadmap, with the intent to obtain Council endorsement of the completed Roadmap in 2022.
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<p>8. Describe up to four climate initiatives, and their outcomes, your local government or Modern Treaty Nation is currently undertaking for Climate Resilience</p>	<p>Initiatives:</p> <p>Sea level is rising with global warming and the frequency and intensity of extreme weather events is increasing. Individually and together, these climate events are increasing Richmond’s exposure flood hazards. Sitting at an average of one meter above sea level, Richmond is subject to flood hazards from coastal storm surges, snowmelt flooding, and extreme weather events like the atmospheric river rainfall experienced in the fall of 2021. To ensure Richmond remains safe, the City is continuously upgrading through the following flood protection measures:</p> <p>1) Upgrades to drainage pump stations: Since the early 2000s, Richmond has rebuilt and upgraded 19 drainage pump stations, increasing total pumping capacity by 29% since 2005. The City’s drainage pumps stations are now capable of discharging 1.4 million US gallons of water per minute – the equivalent of over two Olympic swimming pools every 60 seconds. City Website: https://www.richmond.ca/services/rdws/dikes.htm</p> <p>2) Updates to the City’s Dike Master Plan in tandem with new development (and designing the dike crest to facilitate active public waterfront uses. Richmond’s Flood Protection Management Strategy sets the path to upgrade dikes from the current 3.5 metres in elevation to 4.7 metres in elevation, staying ahead of anticipated sea level rise. City website: https://www.richmond.ca/services/rdws/dikes/dikemasterplan.htm</p> <p>Outcomes:</p> <ul style="list-style-type: none"> • Dike upgrades from No. 3 Road to 400 meter west of No. 4 Road underway. • Dike Master Plan Phase 4 adopted by Council in 2021 for purposes of public engagement.
<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>Richmond’s OCP and Sub-Area and Area Plans are structured to support, encourage and require development of complete, compact neighbourhoods. Within the City Centre, the greatest building density and height is supported by close proximity to transit services. The City Centre Area Plan (CCAP) has two key principles: compact and complete communities, and transit-oriented development.</p>

<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>	<p>Ongoing Implementation of the City Centre Area Plan (CCAP) and other sub-area and area plans:</p> <ul style="list-style-type: none"> • Density Bonus provisions to secure community amenities such as child care/early child care hubs, community centres, and other community uses as approved by Council. The City Centre Village Centre Bonus policy supports bonus density in key locations within immediate proximity of the highest levels of transit services, conditional on a developer providing commercial uses (employment, grocery, etc.) that are important to the viability of the City Centre and providing amenities to residents, workers and visitors; • Securing developer contributions to fund the new Capstan Canada Line Station (construction now underway); • Adoption of Special Precinct Guidelines that include mobility hub provisions integrated into large-scale redevelopments within designated Village Centres; and • Expansion of networks of parks, greenways, and off-street bike paths.
<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>Data to help determine GHG emissions impact of ‘complete community’ initiatives. Developing a robust scenario testing system would assist planning and sustainability staff to understand the positive / negative carbon impact and implementation cost of various land use, urban density and sustainable transportation options, which would inform the City’s compact development policies and initiatives. The City also encourages the Province to provide adequate ongoing funding for its Community Energy and Emission Inventory (CEEI) initiative, which can efficiently provide local governments with disaggregated natural gas and electricity data, and standardized estimates of transportation sector emissions.</p>
<p>12. From 2021 to now, has your local government or Modern Treaty Nation taken any action(s) to address climate impacts?</p>	<p>Council adoption of an updated Community Energy and Emissions Plan on February 14, 2022. The plan includes 77 actions and 199 related implementation steps within eight strategic directions that together set Richmond on a path to achieve 50% reduction in community GHG emissions by 2030, and reach net zero emissions by 2050.</p> <p>The plan provides a roadmap for achieving deeper greenhouse gas emission targets set by Council, and consistent with the International Panel on Climate Change (IPCC) 1.5 degree Celsius global warming limit.</p> <p>Implementing the actions in this plan will also improve Richmond's resiliency to the effects of climate change and support the City's equity, affordability and sustainability goals.</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>

13.a. Please provide a link to the document (URL).	https://www.richmond.ca/___shared/assets/Flood_Protection_Management_Strategy57596.pdf
14. What are the three most significant climate hazards faced by your jurisdiction	"Coastal flooding, storm surge events and/or other coastal hazards", "Overland flooding", "Extreme heat and heat stress", "Wind, rain, and other storm events", "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?	"Persons with disabilities", "Low-income households", "Indigenous peoples", "Racialized communities", "Newcomers to Canada (immigrants and refugees)", "People experiencing homelessness", "Seniors", "Women and girls"
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?	"Persons with disabilities", "Low-income households", "Indigenous peoples", "Racialized communities", "Newcomers to Canada (immigrants and refugees)", "People experiencing homelessness", "Seniors", "Women and girls"
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?	"Persons with disabilities", "Low-income households", "Indigenous peoples", "Racialized communities", "Newcomers to Canada (immigrants and refugees)", "People experiencing homelessness", "Seniors", "Women and girls"
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?	"Through implementation of actions from Richmond's new Community Energy and Emissions Plan 2050, where 37 of 77 actions have been identified as good opportunities to advance equity, fairness, wellness and inclusion.", "By collecting and analyzing disaggregated and/or spatial data on the impact of climate actions", "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?	"Richmond has adopted deeper GHG emission reduction targets in our OCP that are consistent with the targets recommended by the IPCC in 2018. ", "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"
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.	Peter Russell
25. Please indicate your (or survey primary contact's) position with your local government or Modern Treaty Nation.	Director, Sustainability and District Energy Department, Engineering and Public Works Division

26. Please provide your (or survey primary contact's) business email address.	peter.russell@richmond.ca
27. Please provide your (or survey primary contact's) business phone number.	6042764130



Local Government Climate Action Program Attestation Form

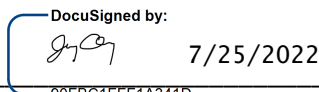
Instructions for the Attestor:

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 City of Richmond
(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) City of Richmond on
(date) July 25, 2022

Signature of Attestor: 
90FBC1FFF1A341D...

Printed Name of Attestor: Jerry Chong

Title or Profession of Attestor (i.e. Chief Financial Officer or equivalent position): General Manager, Finance and Corporate Services

Telephone Number of Attestor: 604 276 4064

Email Address of Attestor: jchong@richmond.ca

Ministry of Environment and Climate Change Strategy	Climate Partnerships and Engagement Branch	Mailing Address:	Email: env.mail@gov.bc.ca
	Climate Action Secretariat	PO Box 9486 Stn Prov Govt Victoria BC V8W 9W6	Website: http://www2.gov.bc.ca/gov/content/environment/climate-change