

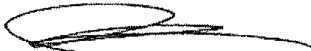


To: Public Works and Transportation Committee **Date:** August 28, 2023
From: Peter Russell **File:** 10-6125-05-01/2023-
Director, Sustainability and District Energy Vol 01
Re: **Local Government Climate Action Program (LGCAP) Year 2 Survey Report and
2021 / 2022 Corporate Emission Inventories**

Staff Recommendations

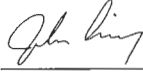


That as described in the report titled 'Local Government Climate Action Program (LGCAP) Year 2 Survey Report and 2021 / 2022 Corporate Emission Inventories' from the Director, Sustainability and District Energy, dated August 28, 2023:

- a. The LGCAP Year 2 Survey Report and Attestation Form be endorsed and posted on the City's website for public information, in accordance with Provincial requirements;
- b. A funding application to the Federation of Canadian Municipalities be submitted in the amount of \$200,000 for undertaking a GHG Reduction Pathway Feasibility Study for civic facilities;
- c. The Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to enter into a funding agreement with Federation of Canadian Municipalities, should the funding agreement be successful; and
- d. The Consolidated 5 Year Financial Plan (2023-2027) be amended to include the GHG Emission Pathway Feasibility Study in the amount of \$525,000, which will be funded from the Energy Operating Provision Account for \$325,000 and an additional \$200,000 contingent upon confirmation from the Federation of Canadian Municipalities.



Peter Russell
Director, Sustainability and District Energy
(604-276-4130)

Att. 3

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Public Works Operations	<input checked="" type="checkbox"/>	
Facilities and Project Development	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
Intergovernmental Relations	<input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS:	APPROVED BY CAO
		

Staff Report

Origin

The Government of British Columbia (the Province) announced the Local Government Climate Action Program (LGCAP) in May 2022 as a replacement to the previous Climate Action Revenue Incentive Program (CARIP) program, which was discontinued in 2021. LGCAP uses a revised approach for allocating funding to local governments and Modern Treaty First Nations. Through this revised approach, the City of Richmond receives \$566,082 annually from the Province in September 2022, 2023 and 2024, which is approximately 2.5 times higher than the previous CARIP funding amount.

Per Council direction from November 14, 2022, LGCAP funding will be allocated strategically in 2023-2025 to support climate actions that are key to achieving the 50% citywide emission reduction target by 2030, noted in the Community Energy & Emissions Plan 2050.

This report updates Council on corporate emissions inventories for operating years 2021 and 2022, and includes a summary report of both corporate and community actions undertaken in 2022 that align with the Province's CleanBC Roadmap to 2030, and the draft BC Climate Preparedness and Adaptation Strategy, as per program requirements. Additionally, this report seeks Council endorsement to proceed with a grant application to the Federation of Canadian Municipalities to undertake a GHG Reduction Pathway Feasibility Study, under their Community Buildings Retrofit Initiative.

This report supports Council's Strategic Plan 2022-2026 Focus Area #2 Strategic and Sustainable Community Growth:

2.3 Ensure that both built and natural infrastructure supports sustainable development throughout the city.

This report supports Council's Strategic Plan 2022-2026 Focus Area #5 A Leader in Environmental Sustainability:

5.1 Continue to demonstrate leadership in proactive climate action and environmental sustainability.

Analysis

Annual Submission Requirements for LGCAP Funding

To be eligible for Year 2 LGCAP funding, local governments and Modern Treaty First Nations are required to:

1. Complete an online survey detailing actions undertaken by the City that align with the Province's CleanBC Roadmap and the draft Climate Preparedness and Adaptation Strategy;
2. Provide an Attestation Form signed by the Chief Financial Officer by July 31, 2023, stating that the funds received will be used for community climate action initiatives; and
3. Post a completed version of the LGCAP Year 2 Survey and Attestation Form publicly by September 30, 2023.

Items (1) and (2) were completed in July 2023 as part of the Provincial submission requirements. With Council endorsement of this report, Item (3) will be completed as the final step in the Year 2 LGCAP reporting process.

City of Richmond inputs to the LGCAP Year 2 Survey Report and Attestation Form are included in **Attachment 1**.

LGCAP Year 2 Survey Report and Attestation Form

The Province revised the LGCAP Survey Report for the second reporting year to better capture local government and indigenous climate leadership, with the objective to:

- Capture annual corporate energy use and greenhouse gas (GHG) emissions;
- Profile actions taken at the community level to mitigate GHG emissions;
- Profile actions improving local resilience and adaptation to the effects of climate change; and
- Inform Provincial efforts to better support local communities on climate change.

The last page of the Survey Report includes a one-page form that has been signed by the General Manager, Finance and Corporate Services, attesting that LGCAP funds have been, or will be, allocated for climate action, and that funds held in reserve will be spent by March 31, 2025.

The Year 2 Survey Report notes that \$566,082 in LGCAP Year 1 funding received in August 2022 was placed in the Carbon Tax Provision account. Per Council direction, LGCAP will fund two new staff positions in the following under-resourced areas: Senior Climate Action Specialist – Zero Emission Vehicles, and Senior Climate Action Specialist – Existing Buildings. Both positions are temporary full time for three years. Remaining LGCAP funds would be allocated to support program development and stakeholder engagement in these two areas.

Corporate Energy and Emissions Reporting under LGCAP

When the Province announced the LGCAP funding initiative in May 2022, they acknowledged that most local governments would be challenged to prepare their 2021 corporate energy and emissions inventories in time for the LGCAP Year 1 submission deadline of July 31, 2022. Therefore, the Province provided the option of not submitting 2021 corporate emissions for that year. The majority of local governments in BC chose this approach. This report includes the City's corporate emissions for both reporting years 2021 and 2022.

Reported Corporate emissions adhere to the BC Ministry of Environment and Climate Change guidance and methodology, and include emissions associated with traditional municipal services, as well as services that are contracted out, such as community recycling collection.

Corporate Emissions for 2021 Reporting Year

With the emergence of the COVID-19 pandemic in 2020, the City of Richmond proactively responded to Provincial health guidelines by introducing measures at civic facilities to minimize chances for exposure to the virus for local residents and City staff.

Throughout Covid, a variety of facilities were operated at levels different than their normal levels. One significant operational change, under suggested Provincial Health guidelines, was to increase ventilation to provide more air changes and reduce contagion risk, resulting in higher levels of energy use and increased GHG emissions for some facilities. Overall, Corporate GHG emissions in 2021 were approximately 23% lower than in 2012¹, as summarized in Table 1 below, and with further detail provided in **Attachment 2**.

Table 1: 2021 Corporate Emission Sources and Credits

Emission Sources and Credits	Tonnes CO_{2e}	Quantification Method
Emissions from services delivered directly by the City	5,770	Derived from metered energy consumption and associated GHG emissions from stationary sources (buildings, lighting, and pumps, except energy use by police services) and Corporate mobile sources (fleet, except construction related fuel use) used directly by the City.
Emissions from contracted services delivering services on the City's behalf	2,185	Uses the Province of BC's standard methodology and guidance for estimating contracted emissions in corporate inventories.
Total Corporate Emissions	7,955	
Household organic waste composting – Diverted from landfill	10,770	BC Government GHG Reduction Projects reporting method.
Surplus GHG emission credits from 2020 Reporting Year	6,384	
Total Emission Credits (Offsets)	17,154	
Net carry forward emission credits for 2022 reporting year	9,199	

Corporate Emissions for 2022 Reporting Year

By the start of 2022, over 80% of Canadians were fully vaccinated from the COVID-19 virus and the public health restrictions began to lift across BC. However, measures with respect to increased ventilation continued well into 2022, resulting in higher levels of energy use relative to pre-pandemic conditions, and an overall increase in emissions for some civic buildings. Overall, Corporate GHG emissions in 2022 were over 20% lower than in 2012, as summarized in Table 2 below, and with further detail provided in **Attachment 3**.

¹ 2012 was the first reporting year for the City of Richmond under the Climate Action Revenue Incentive Program (CARIP), and serves as a baseline for assessing more recent progress in comparison to this initial reporting year.

Table 2: 2022 Corporate Emission Sources and Emission Credits

Emission Sources and Credits	Tonnes CO₂e	Quantification Method
Emissions from services delivered directly by the City	5,954	Derived from metered energy consumption and associated GHG emissions from stationary sources (buildings, lighting, and pumps, except energy use by police services) and Corporate mobile sources (fleet, except construction related fuel use) used directly by the City.
Emissions from contracted services delivering services on the City's behalf.	2,260	Uses the Province of BC's standard methodology and guidance for estimating contracted emissions in corporate inventories.
Total Corporate Emissions	8,214	
Household organic waste composting – Diverted from landfill	10,214	BC Government GHG Reduction Projects reporting method.
Surplus GHG emission credits from 2021 Reporting Year	9,199	
Total Emission Credits (Offsets)	19,413	
Net carry forward emission credits for 2023 reporting year	11,199	

Ongoing replacement of aging equipment with more energy efficient models, as well as fuel switching to low-GHG grid electricity through mechanical system upgrades has resulted in declining GHG emissions from City facilities over the 2012 to 2022 reporting period. This trend will continue as future energy efficiency and emissions reduction projects are implemented.

FCM Community Buildings Retrofit Initiative – GHG Reduction Pathway Feasibility Grant

The Federation of Canadian Municipalities (FCM) Community Buildings Retrofit Initiative is a \$167-million initiative made possible through a \$950-million Federal contribution to FCM in its 2019 budget. This initiative provides a variety of funding options for municipalities in retrofitting public buildings to improve energy performance, lower operating and maintenance costs, and transition to cleaner energy solutions. Staff are seeking to apply for a GHG Reduction Pathway Feasibility Study Grant, to support informed planning and decision-making on low-carbon capital improvements to civic facilities, in alignment with GHG emission reduction goals.

This study would identify strategic and costed options for achieving deep GHG reduction targets, for a group of civic facilities that collectively account for over 50% of annual natural gas consumption within the City's corporate portfolio. It will consider the variety of emission reduction measures suitable for each facility and the inter-relationship of various building mechanical and envelop systems as a whole. Cost implications will also be considered in terms

of upfront capital requirements and any impacts on facility operation and equipment maintenance costs over the lifecycle of the equipment.

This study would additionally consider measures that improve resilience to the effects of climate change. This aspect is relevant in recognition that by 2050, municipalities in the Lower Mainland can expect hotter, drier summers, as well as wetter fall and winter periods, and periods of poor air quality due to regional fire smoke conditions. Climate modelling indicates that extreme weather events may become more frequent and potentially more intense.

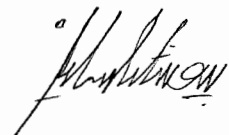
Financial Impact

FCM offers up to \$200,000 in funding to conduct a GHG Reduction Pathway Feasibility Study for a portfolio of buildings. Work on this study is anticipated to start in early 2024, and will take approximately 12 months to complete. If Council endorses the recommendation to proceed, staff will submit a grant funding application to FCM’s Community Buildings Retrofit Initiative.

The estimated cost of this study is \$325,000 to be funded by the Energy Operating Provision and is proposed regardless of the outcome of the funding application. If the maximum funding available from FCM is approved, the scope of the feasibility study may be expanded to \$525,000. If approved by Council, the Consolidated 5 Year Financial Plan (2023-2027) will be amended to include the GHG Emission Pathway Feasibility Study for \$325,000 with an additional \$200,000 contingent on confirmation of external funding.

Conclusion

The City of Richmond is a leader in reducing community and corporate GHG emissions through innovative projects and programs. LGCAP funding is being used strategically to accelerate implementation of key actions from the Community Energy and Emission Plan 2050: supporting the transition to zero emission vehicles and advancing low-carbon retrofits to existing buildings. City staff are also proposing to undertake a GHG Reduction Pathway Feasibility Study, and are seeking Council approval to move forward on a grant funding application to FCM’s Community Buildings Retrofit Initiative – GHG Reduction Pathway Feasibility Study. Through these actions, the City is seeking to position itself for successful transition to a low carbon and climate-resilient community, as well as maintaining carbon neutral corporate operations in the long term.



Poroshat Assadian, B.Arch, CEM, LEED
Corporate Energy Manager
(604-244-1239)



Norm Connolly, RPP MCIP
Sustainability Manager
(604-276-4676)

- Att. 1: LGCAP Year 2 Survey Report and Attestation Form
- 2: Corporate Energy and Emissions Inventory for Fiscal Year 2021
- 3: Corporate Energy and Emissions Inventory for Fiscal Year 2022

Submitted date: 2023-07-27 10:28:46 Pacific Daylight Time

LGCAP Year 2 Survey

Introduction

Reaching [net-zero emissions](#) and adapting to a changing climate will require a whole-of-society approach. The new Local Government Climate Action Program (the Program or LGCAP) aims to catalyze the efficient flow of financial resources, data and knowledge between Modern Treaty Nations, local governments, and the Provincial Government to allow for cost effective, impactful, locally implemented climate action. For more information about the Program you can refer to the [website](#) and [Program Guide](#).

What is climate action?

For the purposes of this program, a climate initiative or action is one that reduces greenhouse gas (GHG) emissions and/or strengthens resilience to the impacts of climate change (adaptation). This includes (but is not limited to): climate-related hazards; integrating climate change measures into policies, strategies and planning; improving education, raising awareness of climate change causes and solutions, increasing human and institutional capacity with respect to climate change mitigation and adaptation, and impact reduction and early warning systems.

Information collected will:

- Highlight local government and Indigenous climate leadership;
- Profile action by including local government and Modern Treaty Nation emissions, resilience and climate action performance data in the annual [Climate Change Accountability Report](#);
- Help inform policy development and monitor progress on achieving provincial and local climate objectives; and
- Support provincial efforts to better collaborate with and support communities to advance climate action.

The survey was informed by:

- Feedback from local governments, Modern Treaty Nations and ministerial partners;
- National and international GHG reporting protocols; and
- The [CDP](#) (global disclosure system).

Instructions

**Please do not provide any personal information (e.g. email, phone number) in the survey.*

Survey: Word Version

A survey template (i.e. a Word version) is available on the [Local Government Climate Action Program webpage](#). The template can be used to gather information from staff across departments. Then simply cut and paste into the online version where you'll be submitting the survey.

Survey: Online Version

SimpleSurvey allows multiple users to access your survey, though two people **cannot** enter information at the same time.

- For other users to contribute to your survey, simply share the unique link with your team members.
- Users must select "Save and continue later" when they are done updating the survey but not ready to submit.

Required fields are indicated with a red asterisk (*). You will not be able to submit the survey and attestation form without completing these fields.

- Some fields have formatting considerations (i.e. numbers only). You will not be able to submit the survey and attestation form until all required fields are completed properly. The red text error message will indicate what is needed.

Attestation Form

The attestation form is filled in after survey questions are completed. It is the second page of the SimpleSurvey submission.

- The attestation form is where the Chief Financial Officer, or equivalent position, attest to the following:
 - That Local Government Climate Action Program funding has been, or will be, allocated to climate action.
 - That Local Government Climate Action Program funds held in reserve will be spent by March 31, 2025.
 - That a completed and signed version of this form and survey contents will be publicly posted by September 30, 2023.

Requirements

1. Reporting

1. Report on **at least one** project linked to objectives from the [CleanBC Roadmap to 2030](#) and/or [Climate Preparedness and Adaptation Strategy](#). If your community reports one initiative related to one sector (e.g. buildings) you have satisfied this requirement. Funding for the project(s) does **not** need to come from this program.
 2. Attest that funds will be allocated to climate initiatives before submitting your survey.
 3. For communities with populations of 15,000+, measuring and reporting local government or Nation's corporate emissions is required.
- Optional open-ended questions asking for one or more initiatives related to climate action may be highlighted in the LGCAP Year 2 Summary Report or other Program materials to acknowledge innovative local climate solutions.

2. Deadline to submit the survey & attestation form

- The deadline for submitting your survey and attestation form is 4 PM PDT on July 31, 2023.

3. Posting the survey & attestation form publicly

- The design / format of the form **can** be changed however all information from required questions must be included.
- Optional questions and answers can be omitted.
- The deadline to post the survey and attestation form publicly is September 30, 2023.

Download a copy for your records!

Once submitted, you can **download a copy of the completed survey** and attestation form (PDF, Excel, and Word options). If you close this window before the download link appears, please reach out for a copy of your submission.

Support

If the survey is accidentally submitted, a submitted survey needs to be revised, or if you have any questions, please reach out to us at LGCAP@gov.bc.ca. We will be happy to provide assistance.

Thank you!
The LGCAP Team

The Survey

Climate Action Planning

Climate Action Plans are strategic roadmaps that identify how an organization will reduce their greenhouse gas (GHG) emissions (mitigation), increase their resilience to the impacts of climate change (adaptation), or a combination of both.

To answer the following questions, consider staff that contribute to activities that reduce greenhouse gas (GHG) emissions and/or strengthen resilience and the ability to adapt to climate-induced impacts. This includes (but is not limited to): climate-related hazards; integrating climate change measures into policies, strategies and planning; improving education, raising awareness of climate change causes and solutions, increasing human and institutional capacity with respect to climate change mitigation and adaptation, and impact reduction and early warning systems.

Question 1: How many staff in full time equivalents (FTEs) are dedicated to working on climate action?

For example: Can include staff in engineering, emergency management, sustainability, transportation, waste management, etc. If a staff member is a climate action coordinator and works 100% on climate-related issues, add 1.0. If a staff member works approximately 25% (please estimate) on climate-related issues, add 0.25. Working on climate-related issues does not need to be written into the staff member's job description to be counted here.

16.15

Question 2: Does your local government or Nation have a climate action plan or other guiding document(s)?

Yes

Please select the type of plan(s) from the list.

Integrated climate plan (addressing mitigation and energy)

Standalone adaptation plan

Please indicate the date the plan was adopted/approved.
If you don't remember the month, you can enter "01" for January.

2022-02

Please include a link to the document or webpage if available.

<https://www.richmond.ca/city-hall/strategies/climateleadership.htm>

Question 3: Has your local government or Nation declared a climate emergency?

Yes

Question 4: Please select the top 3 challenges impeding the advancement of climate action in your community.

Lack of jurisdiction.

Lack of data or information.

Other.

Increased CleanBC funding to support near-zero emission retrofits of existing buildings, including retrofits for climate resiliency in existing MURBs.

Corporate Greenhouse Gas Emissions

Measuring corporate emissions is a Program requirement for all communities with a 2020 population of 15,000 and above ([see population statistics here](#)). Corporate GHG emissions are those produced by the delivery of local government or Modern Treaty Nation "traditional services" including:

- Fire protection,
- Solid waste management,
- Recreational / cultural services,
- Road and traffic operations,
- Water and wastewater management, and
- Local government administration.

Please see the following resources for guidance:

- [Scope Summary Document](#),
- [Corporate Inventory Reporting Tool](#),
- [Becoming Carbon Neutral Guidebook](#) (Scope),
- [Carbon Neutral Workbook](#) (Scope),
- [Contracted Services Emissions Guidance](#),
- [Contracted Emissions Calculator](#),
- [2022 BC Best Practices Methodology for Quantifying GHG Emissions](#), and
- [Emission Factors Catalogue](#).

Question 5: For the 2022 calendar year, has your local government or Nation measured and reported associated corporate GHG emissions?

Yes

If your local government or Nation measured 2022 corporate GHG emissions, please report the number of corporate GHG emissions from services delivered directly by your local government (in tonnes of carbon dioxide equivalent).

5954

If your local government or Nation measured 2022 corporate GHG emissions, please report the number of corporate GHG emissions from contracted services (in tonnes of carbon dioxide equivalent).

2260

If your local government or Nation measured 2022 corporate GHG emissions, please report the total number of corporate GHG emissions from both directly delivered and contracted services (in tonnes of carbon dioxide equivalent).

This would be the sum of the two questions above.

8214

Optional: Please indicate how many tonnes of CO₂e are associated with facilities.

3810

Optional: Please indicate how many tonnes of CO₂e are associated with mobile sources.

4404

Please provide the link to the public report if available.

Optional

<https://www.richmond.ca/services/climate/energysrvs/report-carip.htm>

Optional: Please provide any further comments you wish to share on corporate emissions measurement and reporting here (e.g. system or approach used to measure corporate emissions).

Emissions measured using Carbon Emission Factor and Corporate Emission Inventory Reporting templates, as well as Best Practices Guidelines for Quantifying GHG Emissions and Carbon Neutral Workbook.

Community-Wide Greenhouse Gas Emissions

B.C. Climate Action Charter signatories have committed to measuring and reporting their community-wide GHG emissions generated from all GHG sources (anthropogenic) within their community boundary.

The Community Energy and Emissions Inventory (CEEI) initiative provides a provincial framework for tracking and reporting energy and GHG emissions at a community-wide scale. It is published with a two-year lag, however, raw data can be requested by local governments that wish to measure and report their community-wide emissions for the buildings and solid waste sectors ahead of publication.

The Climate Action Secretariat (CAS) is aware that some local governments are developing their own community-wide GHG emissions inventories (separate from the provincial CEEI) . A better understanding of community-wide emissions measurement across B.C. will help CAS as we upgrade CEEI.

Question 6: For the 2022 calendar year, have community-wide GHG emissions been measured for your local government or Nation?

No

If not, please select all that apply from the list.

No, community GHG emissions were not reported because the 2022 Provincial Community Energy and Emissions Inventory data has not been released.

No, community GHG emissions were not reported because the 2022 Provincial Community Energy and Emissions Inventory does not report transportation data.

No, we do not measure and report community-wide emissions data due to lack of staff and technical capacity.

No, we do not measure and report community-wide emissions annually. (Please indicate most recent year completed: YYYY)

2017

If not, has your community or Nation measured and reported community-wide emissions in the past?

Yes

When was the last year your community or Nation reported its community-wide emissions and what is the interval for reporting (ex. every 5 years)?

2017 was our last year reported. Staff are seeking to have an inventory done every two years to gauge progress toward our 2030 reduction target. The challenge is that currently, only a partial CEEI dataset for 2020 exists, as 2020 transportation data is not yet included. In absence of the full 2020 CEEI inventory, City staff may engage a consultant to create an emission inventory using the best available data and assumptions.

Question 7: Currently, the Province's legislated GHG emission reduction targets are 40% by 2030, 60% by 2040 and 80% by 2050, relative to 2007. Please state your local government or Nation's target(s).

2030

Reduction (format: e.g., 40%)

50%

Baseline Year (format: 2007)

2007

2050

Reduction (format: e.g., 40%)

100%

Baseline Year (format: 2007)

2007

Question 8: The Province has also committed to introducing a target of net-zero emissions by 2050. Does your local government or Nation have a net-zero or carbon-neutral emissions target?

Yes: Net-zero (Net-zero refers to a jurisdiction achieving a balance between greenhouse gas emissions produced and removed from the atmosphere (e.g. planting trees or using carbon capture technologies))

Question 9: If data was provided by the Province, which three supporting indicators would be most valuable to your local government or Nation to advance climate action?

Housing type: Private dwellings by structural type

Floor area: Average floor area by building category and era

Commute by mode: Employed labour force by mode of commute

Optional: Please provide any further comments you wish to share on community-wide emissions measurement and reporting here.

The Province has a crucial role to play in resourcing CEEI to provide robust transportation and building sector emission figures for each municipality. Staff encourage the Province to provide timely and complete community energy and emissions inventory dataset every two years for purposes of tracking progress toward climate targets set by BC municipalities.

Provincial Policy Alignment - Mitigation

The CleanBC Roadmap to 2030 is B.C.'s plan to meet provincial emissions reduction targets to be 40% below 2007 levels for 2030 and set on course to reach net-zero emissions by 2050.

One requirement of this Program is that you must **report on a minimum of one project** linked to objectives from the [CleanBC Roadmap to 2030](#) and/o- [Climate Preparedness and Adaptation Strategy](#) (CPAS). Funding does **not** need to come from this program. For questions 10-12, if your community reports one initiative related to one sector (e.g. buildings) you have satisfied this requirement. That said, please select all that apply.

Question 10: Please indicate all climate initiatives your local government or Nation had in-progress or completed in the 2022 calendar year related to the buildings sector.

The buildings and communities sectoral target for the province is 59% to 64% emissions reductions by 2030.

Zero-carbon new construction (please enter date in pop-up textbox below)

Step Code adoption

Zero Carbon Step Code

Efficiency upgrades to public buildings

Demand-side management

Please enter date effective for zero-carbon new construction requirement.

2027-01

Optional: Please highlight a community project(s) that was in-progress or completed in the 2022 calendar year related to buildings.

Building Regulation Bylaw Amendment: Effective July 2022, Step 5 is the requirement for all Part 9 residential buildings in Richmond, with a relaxation to Step Code level 3 is available if the building achieves a modeled GHG intensity limit of no more than 2.5 kg / m² / year. For Part 3 Office and Retail, the new default performance requirement is Step Code level 3, and for Part 3 Mid-Rise Wood Frame Residential, the default requirement is Step 4. A one-Step relaxation is also available for all Part 3 buildings in Richmond if they install or connect to a low carbon energy system that provides at least 70% of annual heating / cooling energy from renewable sources.

Question 11: Please indicate all climate initiatives your local government or Nation had in-progress or completed in the 2022 calendar year related to the transportation sector.

The transportation sectoral target for the province is 27% to 32% emissions reductions by 2030.

Demand-side management to reduce distance travelled (single-occupancy vehicle commute reduction programs, parking disincentives)

Improving or expanding public transportation

Mode shift targets in Official Community Plan, Regional Growth Strategy or other guiding document

Implemented zero-emission vehicle first procurement policy for all local government on and off-road vehicles purchases.

Active transportation planning

Active transportation infrastructure investments

Electric vehicle charging studies/planning

Established electric vehicle charging ready bylaws

Electric vehicle charging infrastructure investments

Optional: Please highlight a community project(s) that was in-progress or completed in the 2022 calendar year related to transportation.

[1] Garden City Road Multi-Use Pathway (Lansdowne Road to Westminster Highway). Works in 2022 included paving of the north section of the project and reconfiguring bus stop area. Project provides a wider, protected lane from vehicle traffic. [2] Alderbridge Way Multi-Use Pathway. Completion of Phase 2 along north side of Alderbridge Way. [3] E-Scooter and E-Bike Pilot Project. Use of Lime shared e-scooter system has grown in 2022. Since deployment in May 2022, over 60,000 trips have been taken with an average travel distance of 1.6 kilometers. [4] City completed its Cycling Network Plan in July 2022, with 15-year time horizon to 2036.

Question 12: Please indicate all climate initiatives your local government or Nation had in-progress or completed in the 2022 calendar year related to community-wide action.

Complete, compact communities

Organics diversion

Circular economy or zero waste strategy

Sustainable procurement policy

Energy emission plans

Renewable energy investments (e.g. district energy, waste heat recovery, biomass)

Green/blue carbon sequestration

Compliance carbon offset projects

Voluntary carbon offset projects

Complete, Compact Communities - Please select all that apply.

See Complete Communities Guide and Program for supports advancing identified community goals through the creation of more complete, compact and energy efficient communities.

Rezoning

Smaller lots

Density bonuses

Secondary suites and laneway homes

Infill development

Urban containment boundaries

Official Community Plans

Regional Growth Strategies

Community Development Plans

Optional: Please highlight a community project(s) that was in-progress or completed in the 2022 calendar year related to community-wide action.

The City is currently undertaking an update to the Official Community Plan (OCP) to create a more robust policy framework for the provision of affordable housing and addressing climate change, which includes creating a 'climate lens' to inform OCP policy development. The update also includes an action plan to guide development of the City's neighbourhood service centers to support compact, complete communities in Richmond. The OCP update process began in 2022, with bylaw adoption scheduled for 2024.

Provincial Policy Alignment - Resilience and Adaptation

The goal of climate adaptation is to reduce risk and vulnerability associated with climate change impacts. To manage climate impacts, local governments and Nations are integrating adaptation principles into decisions and everyday activities. One requirement of this program is to report on projects linked to one or more objectives from the CleanBC Roadmap and/or the CPAS.

One requirement of this Program is that you must report on **at least one or more** project(s) linked to one or more objectives from the [CleanBC Roadmap to 2030](#) and/or [Climate Preparedness and Adaptation Strategy](#) (CPAS) in Questions 10-13. If your community reports one initiative related to one sector you have satisfied this requirement, but please select all that apply for Questions 10-13.

Question 13: Please indicate all initiatives your local government or Nation completed or had in-progress in the 2022 calendar year to adapt to and build resilience to climate impacts.

Addressing current and future climate risks through plans, adaptation measure implementation, programs, service delivery, asset management and/or other functions.

Collaboration with other communities on resilience planning/initiatives

Monitoring climate risks (floods, wildfire, etc.)

Public engagement on climate risks and actions

Optional: Please highlight one or more climate adaptation project(s) that were completed or in-progress in the 2022 calendar year to reduce risk and increase resilience.

Dike raising to 4.7 meters elevation along Dyke Road, between No. 3 Road and No. 4 Road, near No. 9 Road.

Question 14: Has a climate risk and vulnerability or similar assessment been undertaken for your local government or Nation?

Yes

Please provide the link to the public assessment if available.

Richmond Flood Protection Management Strategy:

https://www.richmond.ca/__shared/assets/Flood_Protection_Management_Strategy57596.pdf

Question 15: What are the most significant climate hazards faced by your jurisdiction and what is the timeframe of their expected impact to your community?

For each selection, please then indicate if the timeframe of their expected impact is short, medium, long or not sure. (short [current/by 2025]; medium [2026-2050]; long [beyond 2050])

Extreme heat and heat stress

short, medium and long-term

Overland flooding

short and medium term

Coastal flooding, storm surge events and/or other coastal hazards

long term

Wind, rain, and other storm events

short and medium term

Human health impacts

short, medium and long-term

Not sure

Other

smoke and poor air quality from forest fires (short, medium and long-term)

Question 18: Of the hazards identified in Question 15, please specify the associated adaptation measures completed or in-progress in the 2022 calendar year, if any.

If entering a hazard under "Other", please also write the hazard in the "Adaption measure" textbox.

Extreme heat and heat stress

Adaptation measure

Advocacy to Province to introduce new requirements into Building Code for existing buildings.

Overland flooding

Adaptation measure

Localized drainage assessments and improvements throughout the City.

Coastal flooding, storm surge events and/or other coastal hazards

Adaptation measure

Phased perimeter dike raising and master planning: Flood Protection Strategy and Dike Master Plan.

Wind, rain, and other storm events

Adaptation measure

Localized drainage assessments and improvements throughout the City.

Ecological impacts

Adaptation measure

Habitat enhancement and banking (protection from development). Inventory of invasive species.

Human health impacts

Adaptation measure

City staff refer to Climate Change & Health Vulnerability Assessment & Capacity Assessment by VCH.

Equity

Taking an equity-informed approach to climate action is about enhancing climate resilience for everyone in B.C., regardless of where and how they live and requires a just approach that integrates equity considerations into climate planning and adaptation responses.

Question 19: How does your community ensure equitable access to and distribution of climate action opportunities and benefits?

Please select all that apply.

By collecting and analyzing disaggregated and/or spatial data on the impacts of climate policy and change.

By engaging with equity seeking groups/frontline communities most impacted by climate policy and change.

By designing and implementing climate actions that remove barriers to participation in planning and programs faced by equity seeking groups/frontline communities most impacted by climate change.

Optional: Please highlight a climate initiative completed or in-progress in the 2022 calendar year that promotes equity and inclusion.

Council endorsed the development of the Energy Poverty Reduction Toolkit for Low Income Households and their Service Providers in September 2021. When brought forward, the purpose of the Toolkit was to create a resource, in collaboration with participating non-profit sector leaders, to assist households experiencing low income in reducing their energy expenses and reduce community GHG emissions. Through the development of the draft Toolkit, it was determined that the materials and resources would be helpful and appropriate for multiple audiences. Therefore, the Toolkit was renamed in 2022 as the Energize Richmond Toolkit to promote inclusion and equitable participation for all members of the community. Further work was completed in 2022 on Toolkit development and a new training program for community leaders.

LGCAP Year 1 Funding

The Program must be able to demonstrate the impact this funding has on greenhouse gas emissions reductions and resilience and adaptation in B.C. To substantiate the Program, we must develop a baseline understanding of where local governments and Nations are at with respect to climate action and track progress over time.

Please do your best to specify how much of your LGCAP funds was invested for each initiative undertaken without double counting.

Question 20: What did/will your local government or Nation spend its LGCAP funding on for year one of the Program (2022)? Please select all that apply and indicate the total dollar value associated with each initiative.

Textbox format: no dollar sign and up to two decimal points (i.e. 2500 or 657.25). If selecting "Other", please write both the item and the amount of funding in the textbox.

Put in reserve for future project
566082.00

Reserve funding - How will funds be allocated?

Please indicate the project(s) funds have been allocated to.

LGCAP Year 1 funding allocated used to create two new staff positions: \$325,000 (total salary + benefits), with \$241,082 in remaining Year 1 funding used to support zero emission building retrofits and transition to zero emissions vehicles.

Optional: Please highlight the initiative(s) your local government or Nation's LGCAP year one funding will support.

Year 1 LGCAP funding of \$566,082 placed in a reserve fund (Carbon Tax Provision account) that will fund two new staff starting in 2023 supporting two key and under-resourced areas: (1) Senior Climate Action Specialist - Zero Emission Vehicles (temporary full-time for three years); and (2) Senior Climate Action Specialist - Existing Buildings (temporary full-time for three years); remaining Year 1 LGCAP funds allocated to support program development and stakeholder engagement in these two areas.

Question 21: How much additional funding for climate action were you able to invest by leveraging your LGCAP funds? This could include matching grants as well as private investment.

Format: no dollar sign and up to two decimal places

0.00

Question 22: Please estimate the total investment in climate mitigation your local government or Nation made in 2022, including from sources beyond your LGCAP funds. For guidance, this includes (but is not limited to): integrating climate change mitigation (i.e. GHG reduction) measures into policies, strategies and planning; improving education, raising awareness of climate change causes and solutions, and increasing human and institutional capacity with respect to climate change mitigation.

Format: no dollar sign and up to two decimals If no estimate is possible, please provide 0 as an answer.

8576641.00

Question 23: If estimated and available, what are the expected emissions reductions from these investments?

Format: in tonnes CO2e

0

Question 24: Please estimate the total investment in climate adaptation and resilience your local government or Nation made in 2022, including from sources beyond your LGCAP funds. For guidance, this includes all actions that strengthen resilience and the ability to adapt to climate-induced impacts. Examples include (but are not limited to): addressing climate-related hazards; integrating adaptation measures into policies, strategies and planning; improving education, raising awareness of climate change causes and solutions, increasing human and institutional capacity with respect to climate adaptation, and impact reduction and early warning systems.

Format: no dollar sign and two decimal places If no estimate is possible, please provide 0 as an answer.

3427528.00

Question 25: Does your community or Nation use a formal framework to apply a climate lens on infrastructure planning and decision-making?

This could include the Provincial preliminary GHG assessment guidance, the Federal climate lens guidance, or another climate lens framework.

No

Question 26: What is the value in the Program's continuity for your community?

Optional Note on posting the survey publicly: - Optional questions and responses such as this one can be omitted. - The Province will use the information for internal purposes only. - When posting the survey publicly, the design / format of the form can be changed. - All information from required questions must be included.

LGCAP funding of \$566,082 received in August 2022 enabled the City to advance priority Community Energy & Emissions Plan 2050 actions much sooner, and specifically in two areas (existing building retrofits and transition to zero emission vehicles) that are presently under-resourced with respect to anticipated level of activity necessary to achieve Richmond's 50% GHG emission reduction target by 2030.

Local Government Climate Action Program Attestation Form

Instructions for the Attestor (CFO or equivalent staff person):

Complete and sign this form by filling in the fields below.

I, the Chief Financial Officer, or equivalent position, attest to the following:

1. That Local Government Climate Action Program funding has been, or will be, allocated to climate action.
2. That Local Government Climate Action Program funds held in reserve will be spent by March 31, 2025.
3. That a completed and signed version of this form and survey contents will be publicly posted by September 30, 2023.

Attested by (first name, last name)

Jerry Chong

Professional title

General Manager, Finance and Corporate Services

Local government or Modern Treaty Nation

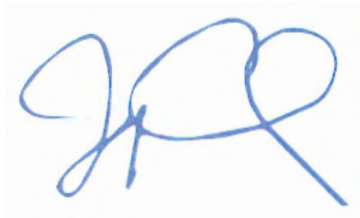
City Richmond

Date

2023-07-25

Attestor signature

Signature captured

A handwritten signature in blue ink, consisting of several loops and a long tail stroke, appearing to be initials or a stylized name.

ATTACHMENT 2

Local Government Name:		The City of Richmond		
Year:		2021		
Contact Information:				
Name:		Jerry Chong		
Position:		General Manager of Finance and Corporate Services		
Telephone Number:		604-276-4064		
Email address:		JChong@richmond.ca		
Stationary Emission Sources:				3,496
Building and Infrastructure Fuel	Unit of Measure	Quantity	Emissions (tCO₂e)	
Electricity	KWH	39,981,655	388	
Natural Gas	GJ	62,347	3,108	
Mobile Emission Sources: Estimated				4,460
Vehicle Class	Vehicle Fuel	Unit of Measure	Quantity	Emissions (tCO₂e)
Light Duty Vehicle	Gasoline	L	41,078	90
Light Duty Vehicle	Diesel	L	348	1
Light Duty Vehicle	Hydrogen	L	392	0
Light Duty Vehicle	Electric	kWh	17,471	0
Light Duty Truck	Gasoline	L	203,403	448
Light Duty Truck	Diesel	L	12,472	33
Light Duty Truck	Propane	L	4,239	7
Heavy Duty Truck	Gasoline	L	196,137	441
Heavy Duty Truck	Diesel	L	286,761	750
Heavy Duty Truck	Propane	L	99,797	154
Off Road Vehicle	Gasoline	L	21,553	51
Off Road Vehicle	Diesel	L	107,547	283
Off Road Vehicle	Propane	L	10,708	17
Heavy Duty Truck - Contractor	Diesel	L	500,199	1,318
Heavy Duty Truck - Contractor	Propane	L	109,201	170
Heavy Duty Truck - Contractor	CNG	KG	486	2
Estimated Contractor	Diesel	L	266,041	696
Total Emissions (all Sources)				7,955
Credits: Estimated				
Organic Waste Diversion	Baseline Organics (2006) (tonnes)	Diverted Organics (tonnes)	Credits (tonnes CO₂e)	
Diverted Household Organic	7,783	30,138	10,770	
2020 Surplus Carbon Credits			6,384	
Total Estimated Credits				17,154
Total Estimated Balance				9,199

ATTACHMENT 3

Local Government Name:	The City of Richmond			
Year:	2022			
Contact Information:				
Name:	Jerry Chong			
Position:	General Manager of Finance and Corporate Services			
Telephone Number:	604-276-4064			
Email address:	JChong@richmond.ca			
Stationary Emission Sources:				
			3,810	
Building and Infrastructure Fuel	Unit of Measure	Quantity	Emissions (tCO₂e)	
Electricity	KWH	41,359,555	476	
Natural Gas	GJ	66,902	3,335	
Mobile Emission Sources: Estimated				
			4,404	
Vehicle Class	Vehicle Fuel	Unit of Measure	Quantity	Emissions (tCO₂e)
Light Duty Vehicle	Gasoline	L	35,951	79
Light Duty Vehicle	Diesel	L	328	1
Light Duty Vehicle	Hydrogen	L	257	0
Light Duty Vehicle	Electric	kWh	23,570	0
Light Duty Truck	Gasoline	L	187,998	414
Light Duty Truck	Diesel	L	13,191	35
Light Duty Truck	Propane	L	4,239	7
Heavy Duty Truck	Gasoline	L	198,121	445
Heavy Duty Truck	Diesel	L	339,363	888
Heavy Duty Truck	Propane	L	97,865	151
Off Road Vehicle	Gasoline	L	21,553	51
Off Road Vehicle	Diesel	L	21,223	56
Off Road Vehicle	Propane	L	11,365	18
Heavy Duty Truck - Contractor	Diesel	L	481,020	1,268
Heavy Duty Truck - Contractor	Propane	L	94,184	147
Heavy Duty Truck - Contractor	CNG	KG	17,069	53
Estimated Contractor	Diesel	L	303,067	793
Total Emissions (all Sources)				8,214
Credits: Estimated				
Organic Waste Diversion	Baseline Organics (2006) (tonnes)	Diverted Organics (tonnes)	Credits (tonnes CO₂e)	
Diverted Household Organic	7,783	28,981	10,214	
2021 Surplus Carbon Credits			9,199	
Total Estimated Credits				19,413
Total Estimated Balance				11,199