



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee      **Date:** August 22, 2024  
**From:** Peter Russell      **File:** 10-6125-01/2024-Vol  
 Acting Director, Climate and Environment      01  
**Re:** **Local Government Climate Action Program (LGCAP) Year 3 Survey Report and 2023 Corporate Emission Inventory**

### Staff Recommendation

That as described in the report titled 'Local Government Climate Action Program (LGCAP) Year 3 Survey Report and 2023 Corporate Emission Inventory' from the Acting Director, Climate and Environment, dated August 22, 2024, the LGCAP Year 3 Survey Report and Attestation Form be endorsed and posted on the City's website for public information, in accordance with Provincial requirements.

Peter Russell  
 Acting Director, Climate and Environment; Director, Housing Office  
 (604-276-4130)

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Public Works Operations	<input checked="" type="checkbox"/>	
Facilities and Project Development	<input checked="" type="checkbox"/>	
Fire Administration – Emergency Programs	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
Intergovernmental Relations	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## 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), 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 for 5 fiscal years (2022 to 2026), with these proceeds received in September each year. The LGCAP provision that Richmond receives is approximately 2.5 times higher than the previous CARIP funding amount.

Per Council direction from November 14, 2022, LGCAP funding is being allocated strategically each year to accelerate progress in reducing emissions from existing buildings and vehicle transportation, noted as *Major Moves for 2030* in the Community Energy & Emissions Plan (CEEP) 2050. This funding is supporting staff to implement actions from the CEEP regarding zero emission mobility and retrofits to existing buildings, as well as related program development, demonstration projects and incentives, outreach and engagement activities.

This report updates Council on corporate energy and emission inventories for operating year 2023, and includes a summary report of both corporate and community actions undertaken in 2023 that align with the Province's CleanBC Roadmap to 2030, and the draft BC Climate Preparedness and Adaptation Strategy, as per LGCAP reporting requirements.

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

*Strategic and sustainable growth that supports long-term community needs and a well-planned and prosperous city.*

*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:

*Leadership in environmental sustainability through innovative, sustainable and proactive solutions that mitigate climate change and other environmental impacts.*

*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 3 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, 2024, stating that the funds received will be used for community climate action initiatives; and
3. Post a completed version of the LGCAP Year 3 Survey Report and Attestation Form publicly by September 30, 2024.

Items (1) and (2) were completed in July 2024 as part of the Provincial submission requirements (see Attachment 1). With Council endorsement of this report, Item (3) will be completed as the final step in the Year 3 LGCAP reporting process.

#### LGCAP Year 3 Survey Report and Attestation Form

The Province has revised the annual LGCAP Survey Report for the third reporting year to better capture local government and indigenous climate leadership, and incorporate feedback received from provincial workshops held earlier in 2024. The overall reporting objectives include:

- Reporting annual corporate energy use and greenhouse gas (GHG) emissions;
- Profiling actions taken at the community level to mitigate GHG emissions;
- Profiling actions taken to improve local resilience and adaptation to the effects of climate change; and
- Informing 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 the end of fiscal 2026.

The Survey Report also notes that \$566,082 in LGCAP Year 2 funding received in September 2023 was placed in the Carbon Tax Provision account, with \$104,200 spent in fiscal 2023, and remaining \$461,882 to be allocated in 2024. Per Council direction, LGCAP is fully funding new staff positions in the following strategic areas: supporting the city-wide transition to zero emission mobility, and retrofits to existing buildings<sup>1</sup>. Remaining LGCAP funds are being allocated strategically to support program development, technical analysis and stakeholder engagement in these two areas, but also other strategic direction areas in the CEEP.

#### LGCAP Corporate Energy and Emissions for 2023 Reporting Year

This report includes the City's corporate emissions for reporting year 2023, which adheres to the BC Ministry of Environment and Climate Change guidance and methodology. Corporate reporting includes emissions associated with traditional municipal services, as well as municipal services that are contracted out, such as community recycling collection.

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<sup>1</sup> Council approved two new Senior Climate Action Specialist positions in the 2023 Operating Budget, with a third Senior Climate Action Specialist position approved in the 2024 Operating Budget.

Overall, Corporate GHG emissions in 2023 were 9.1% lower than in baseline year 2012<sup>2</sup>, as summarized in Table 1 below, and with further detail provided on both corporate and city-wide actions in Attachment 2.

**Table 1: 2023 Corporate Emission Sources**

<b>Emission Sources and Credits</b>	<b>tonnes CO<sub>2</sub>e</b>	<b>Quantification Method</b>
Emissions from services delivered directly by the City	6,991	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.	2,350	Uses the Province of BC's standard methodology and guidance for estimating contracted emissions in corporate inventories.
<b>Total Corporate Emissions</b>	<b>9,341</b>	
Household organic waste composting – Diverted from landfill	10,294	BC Government GHG Reduction Projects reporting method
Surplus GHG emission credits from 2022 Reporting Year	11,199	2022 reporting year
<b>Total Carbon Credits (Offsets) *</b>	<b>21,493</b>	
Net carry forward carbon credits for 2024 reporting year	12,152	Total Carbon Credits minus Corporate Emissions in 2023

\* **NOTE** Last year, the City reported surplus emission credits of 11,199 tonnes of CO<sub>2</sub>e that have been carried forward from 2022 to help offset emissions incurred in 2023. BC municipalities had the option to utilize carbon credits to offset annual corporate emissions under the BC government's former carbon neutral program, which was officially cancelled in early 2024.

#### Status of Community Buildings Retrofit Initiative – GHG Reduction Pathway Feasibility Study

In September 2023, the LGCAP Year 2 Survey Report and 2021 / 2022 Corporate emission inventories was endorsed, with Council also approving a funding application in the amount of \$200,000 be submitted to Federation of Canadian Municipalities (FCM), and the Consolidated 5 Year Financial Plan (2023-2027) be amended to include a GHG Reduction Pathway Feasibility Study in the amount of \$525,000. In spring 2024, FCM notified the City of Richmond that \$200,000 in funding had been approved. A funding agreement was subsequently signed with FCM to conduct a study of 12 civic facilities that together account for 54% of the City's annual building emissions. A procurement process is underway to select a lead proponent to carry out this work, with a final report anticipated in late 2025.

<sup>2</sup> In 2012, total GHG emissions from the City's corporate buildings and vehicle fleet were 10,275 tonnes CO<sub>2</sub>e, and 9,341 tonnes CO<sub>2</sub>e in 2023 as shown in Table 1.

This study aims to support informed planning and decision-making on low-carbon capital improvements in 12 City buildings, in alignment with GHG emission reduction objectives, and to consider measures that improve climate resilience in these buildings.

**Financial Impact**

None.

**Conclusion**

The City of Richmond is a leader in reducing community and corporate GHG emissions through innovative projects and programs. Provincial LGCAP funding is being used strategically to accelerate implementation of key actions from the Community Energy and Emission Plan (CEEP): supporting the transition to zero emission mobility in Richmond and advancing low-carbon retrofits to Richmond’s existing building stock, but also opportunistically supporting other city-wide and corporate actions noted in the CEEP. Through implementation of these actions, the City is seeking to position itself for successful transition to a low carbon and climate-resilient community.



Thi Nguyen  
Corporate Energy Manager  
(604-244-1239)



Norm Connolly  
Manager, Climate Action  
(604-276-4676)

TN : NC

- Att. 1: LGCAP Year 3 Survey Report and Attestation Form
- 2: 2023 Corporate Energy and Emissions Inventory

Submitted date: 2024-07-31 15:49:36 Pacific Daylight Time

## LGCAP Year 3 Survey Report

### Introduction

Reaching [net-zero emissions](#) and adapting to a changing climate will require a whole-of-society approach. The 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](#).

### **What is climate action?**

For the purposes of this program, a climate initiative or action is one that reduces greenhouse gas (GHG) emissions (mitigation) 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 (formerly [Carbon Disclosure Project](#), a global non-financial 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 [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.

There is a 9,999 character limit for the open-ended questions.

### **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, attests 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 for years 1 and 2 received in 2022 and 2023 will be spent by March 31, 2025.
  - That Local Government Climate Action Program funds for years 3-5 received in 2024 will be spent by March 31, 2028.
  - That a completed and signed version of this form and survey contents will be publicly posted by September 30, 2024.

## **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. For communities with populations of 10,000+ (based on 2020 BC Census data figures), measuring and reporting local government's traditional services emissions is required.
  3. Attest that funds will be allocated to climate initiatives before submitting your survey.
- Open-ended questions asking for one or more initiatives related to climate action may be highlighted in Provincial materials to acknowledge innovative local climate solutions. A template to submit climate action success stories for publication can be found on the [Local Government Climate Action Program webpage](#).

### **2. Deadline to submit the survey & attestation form**

- The deadline for submitting your survey and attestation form is 4 PM PDT on July 31, 2024.

### **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, 2024.

### 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](mailto: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 a): How many staff in full time equivalents (FTEs) are dedicated to working specifically on climate action?

If a staff member is a climate action coordinator and works 100% on climate-related issues, add 1.0.

6.4

Question 1 b): How many staff in full time equivalents (FTEs) are dedicated to working on climate action in other departments such as transportation or engineering?

For example: Can include staff in engineering, emergency management, transportation, waste management, etc. related to climate work but whose primary role is not working on climate action. 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.

17.65



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

Yes

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

In the textbox, indicate the date the plan was adopted/approved in format YYYY-MM. If you don't remember the month, you can enter "01" for January.

Integrated climate plan (addressing mitigation and energy)

2022-02

Standalone adaptation plan

2019-06

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

*Community Energy and Emissions Plan (CEEP) 2050:*

[www.richmond.ca/\\_\\_shared/assets/ceepreport61163.pdf](http://www.richmond.ca/__shared/assets/ceepreport61163.pdf) | *Flood Protection Management Strategy 2019:*

[https://www.richmond.ca/\\_\\_shared/assets/Flood\\_Protection\\_Management\\_Strategy57596.pdf](https://www.richmond.ca/__shared/assets/Flood_Protection_Management_Strategy57596.pdf)

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

Yes

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

In the textbox, indicate the date the plan was adopted/approved in format YYYY-MM. If you don't remember the month, you can enter "01" for January.

Standalone energy-related plan

2013-10

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

[https://www.richmond.ca/\\_\\_shared/assets/CarbonNeutrality\\_CNCL\\_11251337332.pdf](https://www.richmond.ca/__shared/assets/CarbonNeutrality_CNCL_11251337332.pdf)

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

Yes

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

Lack of jurisdiction.

Lack of data or information.

Optional: Is local political support a challenge your local government faces that is impeding climate action?

No

## Traditional Services Greenhouse Gas Emissions

Measuring traditional services emissions (defined in previous years as corporate emissions) is a Program requirement for all communities with a 2020 population of 10,000 and above ([see population statistics here](#)). Traditional services 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:

- [LGCAP Traditional Services Boundaries and Scope Guidance](#),
- [Scope Summary Document](#),
- [Traditional Services Inventory Reporting Tool](#),
- [Contracted Services Emissions Guidance](#),
- [Contracted Emissions Calculator](#),
- [BC Best Practices Methodology for Quantifying GHG Emissions](#), and
- [Emission Factors Catalogue](#).

Question 5: For the 2023 calendar year, has your local government or Nation measured and reported associated traditional services GHG emissions?

Yes

If your local government or Nation measured 2023 traditional services GHG emissions, please report the GHG emissions from services delivered directly by your local government (in tonnes of carbon dioxide equivalent) from scope 1 and 2 sources.

6991

If your local government or Nation measured 2023 traditional services GHG emissions, please report the GHG emissions from contracted services (in tonnes of carbon dioxide equivalent) from scope 1 and scope 2 sources.

2350

If your local government or Nation measured 2023 traditional services GHG emissions, please report the total GHG emissions from both directly delivered and contracted services (in tonnes of carbon dioxide equivalent) from scope 1 and scope 2 sources.  
This would be the sum of the two questions above.

9341

If your local government or Nation measured 2023 traditional services GHG emissions, please report what protocol you used to measure emissions.

*Emissions were measured using the '2023 B.C. Best Practices Methodology for Quantifying Greenhouse Gas Emissions', the "Emission Factors Catalogue", and the "Traditional Services Emissions Inventory Reporting Tool".*

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

4350

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

4991

Please provide the link to the public report if available.

Optional

*A weblink will be provided when staff report is provided to Council in September.*

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

*GHG emissions associated with diesel consumption may be revised as information from our supplier becomes available, as the actual GHG intensity of the fuel consumed in 2023 was lower than BC regulatory requirements.*

## 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 2023 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 2023 Provincial Community Energy and Emissions Inventory data has not been released.

No, we do not measure and report community-wide emissions annually. (Please indicate most recent year completed: YYYY)  
2021

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. 2022, every 5 years)?

*Richmond staff would like to report out annually on community-wide GHG emissions, but currently rely on the latest available provincial Community Energy and Emissions Inventory (CEEI) data. Because transportation sector CEEI data for 2013-2021 was not available until recently, the latest baseline year for which the City had a complete community-wide emissions inventory was 2017. A consultant was retained in 2019-2021 to assist staff in developing Richmond's 2017 emission inventory. This provided a more recent baseline year for quantifying the amount (tonnes) of GHG emissions required to meet Council-adopted 2030 and 2050 reduction targets.*

Please report your community-wide transportation sector emissions in tonnes of CO<sub>2</sub>e for the most recent year available.

397557

Please report your community-wide buildings sector emissions in tonnes of CO<sub>2</sub>e for the most recent year available.

595086

Please report your community-wide solid waste sector emissions in tonnes of CO<sub>2</sub>e for the most recent year available.

24827

If your local government or Nation measured your community-wide emissions, please report the protocol(s) you used to measure emissions.

GCoM Common Reporting Framework (CRF).

Regional specific methodology (CEEI).

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).

Please enter "0" if no targets or baseline are established for the years given in the table.

2030

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

50

Baseline Year (format: e.g., 2007)

2007

2050

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

100

Baseline Year (format: e.g., 2007)

2007

Question 8: Does your local government or Nation have net-zero or carbon-neutral emissions target(s)?

Please select all that apply.

Yes: Corporate carbon neutrality (Carbon neutral refers to an organization reducing emissions as much as practicable and then offsetting the remainder by purchasing offsets or other similar mechanisms)

Question 9: Please select up to three supporting indicators that would be most valuable to your local government or Nation to advance climate action (these indicators were previously reported through the Community Energy and Emissions Inventory initiative).

Housing type: Private dwellings by structural type

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 an essential role in resourcing CEEI to provide robust transportation and building sector emission figures for municipalities. We encourage the Province to provide timely and complete CEEI datasets, with detailed transportation sector emissions, to help municipalities assess progress against climate plan targets. Disaggregation of emissions data is also suggested, particularly with regard to electricity and natural gas consumption. Disaggregated natural gas consumption data is important given that the majority of emissions within the building sector come from natural gas. At present, the only data available are community-wide totals for "residential" and "CSMI" accounts (the latter of which includes multi-unit residential buildings), and the number of natural gas connections within a community. This information indicates overall consumption, but no indication of consumption trends by building type, age or geographic sub-area. This information is helpful to inform emission reduction programs and policies for existing buildings. Staff commend the Province for now providing transportation data disaggregated by vehicle type, and request that the same step be pursued with building sector energy and emissions information.*

## 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 us 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/or [Climate Preparedness and Adaptation Strategy](#) (CPAS). Funding does **not** need to come from this program. For questions 10-13, 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, ongoing or completed in the 2023 calendar year related to the buildings sector. This should not be limited to what your LGCAP funding supported.

Corporate  
Community

Corporate buildings policies, programs and actions.

Efficiency upgrades/retrofits.

Community-wide buildings policies, programs and actions.

BC Energy Step Code adoption (Step 3 or higher).  
Zero Carbon Step Code adoption.

Please enter the step for part 3 buildings (Energy Step Code).  
Optional

*(a) Hotels and Motels: Step 4 [+ EL-1], or Step 3 [+ EL-2], or Step 2 [+ EL-3]; (b) Residential (Concrete frame): Step 3 [+ EL-1], or Step 2 [+ EL-2]; (c) Residential (Wood frame): Step 4 [+ EL-1], or Step 3 [+ EL-2]; (d) Office and Retail: Step 3 [+ EL-1], or Step 2 [+ EL-2]*

Please enter the step for part 9 buildings (Energy Step Code).  
Optional

*Step 5 [+ EL-2], or Step 4 [+ EL-3], or Step 3 [+ EL-4]*

Please enter the step for part 3 buildings (Zero Carbon Step Code).  
Optional

*(a) Hotels and Motels: EL-1 [+ Step 4], or EL-2 [+ Step 3], or EL-3 [+ Step 2]; (b) Residential (Concrete frame): EL-1 [+ Step 3], or EL-2 [+ Step 2]; (c) Residential (Wood frame): EL-1 [+ Step 4], or EL-2 [+ Step 3]; (d) Office and Retail: EL-1 [+ Step 3], or EL-2 [+ Step 2]*

Please enter the step for part 9 buildings (Zero Carbon Step Code).  
Optional

*EL-2 [+ Step 5], or EL-3 [+ Step 4], or EL-4 [+ Step 3]*

Please highlight a community project(s) that was in-progress, ongoing or completed in the 2023 calendar year related to buildings. Please enter NA if your community reported no buildings initiatives ongoing, completed or in-progress for 2023.

*Richmond adopted the BC Zero Carbon Step Code (ZCSC) into local Building Bylaw regulation, effective October 31, 2023. With adoption of ZCSC, Richmond has set GHG requirements for all new buildings covered by the provincial Energy Step Code. Richmond provides at least two compliance options for each type of building covered by the Energy Step Code, where builders / developers can pair higher-stringency Step Code requirements with lower-stringency ZCSC requirements, and vice versa, providing flexibility for the design and construction community. City staff also hosted a Builders' Breakfast event in June 2023, attended by 90 local homebuilders, energy specialists and others to present draft recommendations on the proposed Bylaw changes noted above. Feedback from builders was overall positive on City's approach to ZCSC implementation, providing Part 9 builders with three sets of compliance options to meet the new requirements. District Energy: City of Richmond's Lulu Island Energy Company (LIEC) is one of Canada's largest municipally owned district energy utilities, providing energy services to 7.3 million ft<sup>2</sup> as of December 2023. In 2023, the City Centre District Energy Utility (CCDEU) system was extended to two new developments, adding over 608,000 ft<sup>2</sup> to the total floor space served by this system. Expansion of the CCDEU has been underway since the execution of a substantial \$175M financing deal with partners' Corix Utilities and Canada Infrastructure Bank in 2022. LIEC is in the early stages of development of the CCDEU system, which will swiftly become the largest district energy service area within its first few years of operation. LIEC currently serves customers by utilizing an interim servicing strategy to expand the customer base and enable immediate reduction of GHG emissions for upcoming developments throughout the City Centre area. This strategy requires developments in the City Centre area to utilize LIEC's onsite low-carbon energy plants to provide space heating, space cooling, and domestic hot water heating services to the customers. A future permanent energy centre with sewer heat recovery is planned to be completed by 2028 and will interconnect with CCDEU buildings. Over the next 30 years district energy infrastructure will continue to expand and the connected floor area will grow to approximately 52-million ft<sup>2</sup>.*

Question 11: Please indicate all climate initiatives your local government or Nation had in-progress, ongoing or completed in the 2023 calendar year related to the transportation sector. This should not be limited to what your LGCAP funding supported.

Corporate  
Community

Corporate transportation policies, programs and actions.

Programs to increase high-occupancy (2 or more people) vehicle trips (i.e. carpooling).

Established commercial transportation target goals, and measures to reach them, in annual reports – may include target goals for vehicle kilometre reduction, mode share for energy efficient commercial transportation and zero-emission vehicles.

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

Electric vehicle charging studies/planning.

Electric vehicle charging infrastructure investments.

Other.

*Staff reported that the Green Fleet Action Plan 2020 met a reduction of 28% in Fleet related emissions from the 2011 baseline in the year 2020. The City has a carpool program using City vehicles. This is managed by our Transportation Department, which accepts participating employees and matches up 3-4 employees into carpools with an assigned vehicle. The program also works to match up participants using staff vehicles if City vehicles are not available. Richmond has bike lockers at City Hall.*

## Community-wide transportation policies, programs and actions.

Supporting improvements and expansion of public transportation.

Mode shift targets for passenger and/or commercial transportation (shifting from private vehicles to sustainable modes like walking, cycling and public transit) in Official Community Plan, Regional Growth Strategy or other guiding documents.

Active transportation planning.

Active transportation infrastructure investments.

Active transportation education and encouragement programs.

Expanded micromobility access, bylaws and/or infrastructure (e.g. introduced or expanded bike/e-bike/e-scooter sharing programs, built new bike/scooter lanes, updated bylaws for use of bikes/scooters).

Implement pedestrian plazas, car-free streets (temporary or permanent) or limited-access automobile streets.

Installation of public secure bike parking (i.e. bike valet).

Electric vehicle charging studies/planning.

Mandatory EV infrastructure in new construction.

Established electric vehicle charging ready bylaws.

Electric vehicle charging infrastructure investments.

Other.

*Promotion and education regarding active transportation*

Please highlight a community project(s) that was in-progress or completed in the 2023 calendar year related to transportation. Please enter NA if your community reported no transportation initiatives ongoing, completed or in-progress for 2023.

*Infrastructure Investments: Expanded and enhanced active transportation network; delineators installed on Garden City Road bike lane; completed Westminster Highway Multi-Use Pathway (Smith Cr. to Fraserside Gate); completed walkway on north side of Westminster Hwy.). Promotion and education of active transportation: Bike-to-school education for students; Go by Bike Week; HUB Cycling Bike to Shop Week; 21st Island City by Bike Tour event; E-Scooter and E-Bike Share Pilot Project.*

Question 12: Please indicate all climate initiatives your local government or Nation had in-progress, ongoing or completed in the 2023 calendar year related to community-wide and corporate action. This should not be limited to what your LGCAP funding supported.

Corporate

Community

## Corporate climate policies, programs and actions

Circular economy or zero waste strategy.

Sustainable procurement policy.

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

Green/blue carbon sequestration.



Community-wide climate policies, programs and actions.

Complete, compact communities

Organics diversion

Circular economy or zero waste strategy

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

**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

Please highlight a community project(s) that was in-progress, ongoing or completed in the 2023 calendar year related to community-wide or corporate action. Please enter NA if your community reported no community-wide or corporate initiatives ongoing, completed or in-progress for 2023.

*The City is currently undertaking a targeted update of the OCP to create a more robust policy framework for the provision of affordable housing. Integration of climate mitigation and adaptation through potential application of a 'climate lens' to inform OCP policy development may also be considered. The update will also include an action plan to guide the planning and development of the City's neighbourhood service centres to further the development of compact, complete communities in Richmond. The OCP update process began in 2022, with bylaw adoption scheduled for 2025. In April 2023, following an extensive stakeholder engagement process, Council endorsed the Richmond Circular City Strategy (RCCS). Richmond is one of Canada's leading cities in developing a comprehensive, integrated action plan to advance circularity. In 2023, the City secured funding from FCM to conduct a comprehensive community-wide Material Flow Analysis study for Richmond. This study will assess the current state of resource flows within Richmond to produce goods and services, and identify relationships between resource flows, social activities, economic development, and environmental changes. One of the intended outcomes of this work is to inform a review of the City's demolition bylaw.*

## 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 climate adaptation principles into decisions and everyday activities.

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 the [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 had completed, ongoing or in-progress in the 2023 calendar year to adapt to and build resilience to climate impacts. This should not be limited to what your LGCAP funding supported.

Corporate  
Community

Corporate resilience and adaptation policies, programs and actions.

Undertaking or completing a risk assessment at the asset or project level.

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 or impacts (floods, wildfire, etc.).

Providing training (adaptation and mitigation skills).

Creating data systems to support climate action.

Utilizing natural assets/nature-based solutions.

Developing emergency/hazard response plans.

Community-wide resilience and adaptation policies, programs and actions.

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 or impacts (floods, wildfire, etc.).

Public engagement on climate risks and actions.

Please highlight one or more climate adaptation project(s) that were completed, ongoing or in-progress in the 2023 calendar year to reduce risk and increase resilience. Please enter NA if your community reported no community-wide or corporate initiatives ongoing, completed or in-progress for 2023.

Please note that highlights for resilience actions may be shared with the Ministry of Emergency Management and Climate Readiness (EMCR) for them to use on ClimateReadyBC as part of their work on sharing info on climate resilience in BC. EMCR may follow up for more details if needed.

*Dike raising to 4.7 meters geodetic along Dyke Road, between 6080 Dyke Road to Gilbert Road – in design. | Dike raising to 4.7 meters geodetic along River Road, between Lynas Lane to No. 2 Road – in design. | Dike raising to 4.7 meters geodetic along Dyke Road between No. 4 Road to No. 5 Road – in design.*

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

Please select all that apply. In the textbox, please provide the link to the public assessment if available.

Yes at the community level

Staff from Emergency Programs department are working with a geospatial consultant through funding from UBCM, to conduct an extreme heat vulnerability assessment for the City, to be completed in 2024.

Question 14 b): Are you integrating climate risk into asset management, budgeting and climate action plans?

Yes, in asset management

Yes, in budgeting

Yes, in climate action plans

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

For each selection, please 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*

Extreme cold, snow and ice

*short*

Wildfire smoke

*short*

Overland flooding

*short*

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

*long*

Wind, rain, and other storm events

*short*

Ecological impacts (examples of ecological impacts include biodiversity loss and erosion)

*medium*

Cultural impacts (examples of cultural impacts include threats to identities, languages, and livelihoods)

*long*

Human health impacts

*short*

Question 16: What information do you need to know to be able to plan effectively for the future of your community, with respect to the hazards and impacts identified in Question 15? Please select one or more of what you consider the most valuable types of information for planning.

Local knowledge

Localized climate modelling and projected scenarios

Assessment of potential community impacts

Assessment of community vulnerabilities

Risk assessment of hazards

Mapping of climate change impacts and hazards

Demographic information

Projected development

Technical expertise to implement solutions

Information on partnership opportunities

Examples of actions taken by other communities

Optional: What resilience indicators are of most value to your local government or Nation?

*Regional climate impact modelling that factors in implemented adaptation measures.*

Question 17: Based on the hazards and impacts you indicated as most significant in Question 15, which groups are most vulnerable to the impacts of those climate hazards and impacts?

Low-income households

Indigenous Peoples

Racialized communities

Newcomers to Canada (immigrants and refugees)

People experiencing homelessness

Seniors

Pregnant women and young children

Persons with disabilities

LGBTQIA2S+: Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, Asexual, Two-Spirit, and additional sexual orientations and gender identities

People living alone / socially isolated

Other

*People with pre-existing illness, respiratory or cardiovascular disease | outdoor workers | neuro-diverse individuals | people with mental health disorders | individuals or households at risk of homelessness*

Source: *Climate Change & Health Vulnerability & Capacity Assessment*, Vancouver Coastal Health and Fraser Health Report (Feb. 2022); *Protecting Population Health in a Climate Emergency*, Chief Medical Health Officer, Vancouver Coastal Health (2023)

Question 18: Of the hazards and impacts identified in Question 15, please specify the associated adaptation measures completed or in-progress in the 2023 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**

*Advocated for BCBC requirements for existing buildings; Extreme Heat and Poor AQ Emergency Ops Plan.*

**Extreme cold, snow and ice**

**Adaptation measure**

*City & partners provide Warming Centres; Snow Angels shovel walks for residents needing assistance.*

**Wildfire smoke**

**Adaptation measure**

*Revised Extreme Heat and Poor Air Quality Response Plan ready for activation.*

**Overland flooding**

**Adaptation measure**

*Localized drainage assessments and improvements throughout the City.*

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

**Adaptation measure**

*Perimeter dike raising design for 3 locations.*

**Wind, rain, and other storm events**

**Adaptation measure**

*Localized drainage assessments and improvements throughout the City.*

**Ecological impacts**

**Adaptation measure**

*Habitat enhancement and banking agreement; invasive species inventory and risk assessment.*

**Human health impacts**

**Adaptation measure**

*See "Extreme cold, snow and ice" above.*

## 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 local government or Nation ensure equitable access to and distribution of climate action opportunities and benefits?

Please select all that apply.

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 2023 calendar year that promotes equity and inclusion.

*(1) The Energize Richmond (initially called the "Energy Poverty Toolkit") pilot engaged stakeholders to work one-on-one with residents living with energy poverty. Participants gained training, skills, and a toolkit enabling them to act as community leaders, hosting unique local dialogues with their peers, catalyzing the creation of action plans to save money and energy, and encouraging residents to take action on climate change. (2) Through UBCM's Community Emergency Preparedness grant program, the City was awarded approximately \$30,000 to produce Extreme Temperature Risk Mapping, Assessment and Planning. The information from this analysis will inform the development of future initiatives to target identified at-risk populations and areas. (3) The City worked with the Canadian Red Cross to develop a community preparedness education program for seniors and newcomers. The resulting five events reached approximately 180 people and provided education in individual preparedness, hazard awareness, and provided tools for community building. (4) The Snow Angel program offered during the winter season helps to ensure residents who are older adults or have mobility challenges stay connected and have the ability to leave their homes during a snowfall event. Over Winter 2022/23 and 2023/24, the program had a total of 138 volunteers, who worked over 485 hours to ensure that 234 residents were successfully assisted with a cleared walkway around their homes.*

## LGCAP Year 2 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 two of the Program (2023)? Please select all that apply and indicate the total dollar value associated with each initiative. For LGCAP 2023 funding, City of Richmond received 566082. Please ensure the amount(s) entered for Question 20 equal this amount in total.

Corporate  
Funds on hold  
461882.48

### Corporate Initiatives

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.

Staffing  
101399.52

Traditional service emissions reporting  
2800.00

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

*Two new Senior Climate Action Specialists (3-year TFT staff) focused on advancing low-carbon retrofits to existing buildings and zero emission mobility in Richmond.*

Question 21 a): 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 21 b): Please list the funding programs leveraged and associated funders (i.e. Investing in Canada Infrastructure Program, Canada/Province). Please enter "NA" if no funds were leveraged.

*NA for Year 2. Note: Information on the above will be included in the City's Year 4 LGCAP Survey Report, where LGCAP proceeds in calendar years 2024 and 2025 will be used to leverage an \$175,000 FCM GMF funding application to explore financing options for energy retrofits to existing low-rise residential buildings. LGCAP proceeds will also be utilized for municipal 'top-up' incentives in 2024 to help drive local participation in CleanBC heat pump retrofit incentives for existing ground-oriented housing.*

Question 22: What is your internal decision criteria for spending LGCAP dollars?

*City Council direction for LGCAP funding to be used strategically to advance progress in reducing emissions from existing buildings and vehicle transportation, which are both noted as major moves for 2030 in Richmond's Community Energy and Emissions Plan 2050. The approved Staff Report from October 24, 2022 described how LGCAP funding would be used to support three new full-time staff (two in fiscal 2023, and the third in fiscal 2024), as well as related funding for pilot program development, and outreach and engagement activities. These three positions were also approved by Council through the annual Operating Budget process in 2023 and 2024.*

Question 23: Does your local government 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 24: What is the value in the Program's continuity for your community?

Optional

*Meaningful progress toward City of Richmond's Council-adopted community GHG emissions targets requires ongoing policy, program and regulatory effort by the City, with most of these initiatives needing to be multi-year to have the desired emissions impact. The Province of BC's commitment to sustained funding through the LGCAP program has enabled the City to add three new Senior Climate Action Specialist TFT positions (two in Q4 2023, and one in Q3 2024) to develop and lead new initiatives targeting existing buildings and zero emission mobility.*

**Please note on posting the survey publicly:**

- All information from required questions must be included.
- Optional questions and responses 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.

**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 for years 1 and 2 received in 2022 and 2023 will be spent by March 31, 2025.
3. That Local Government Climate Action Program funds for years 3-5 received in 2024 will be spent by March 31, 2028.
4. That a completed and signed version of this form and survey contents will be publicly posted by September 30, 2024.

Attested by (first name, last name)

*Jerry Chong*

Professional title

*General Manager, Finance and Corporate Services*

Local government or Modern Treaty Nation

*City of Richmond*

Date

*2024-07-30*

Attestor signature

Please note: We did hear feedback to allow for file upload e-signatures and have looked into this. Unfortunately, uploaded files do not appear on the final report. If you require a redo for the digitally-drawn signature, please click the trash can. If that doesn't work, please submit your survey then contact us at [LGCAP@gov.bc.ca](mailto:LGCAP@gov.bc.ca).

*Signature captured*



*2024-07-31 09:23:00 Pacific Daylight Time*



## 2023 Corporate Energy and Emissions Inventory

<b>Local Government Name:</b>	The City of Richmond
<b>Year:</b>	2023
<b>Contact Information:</b>	
<b>Name:</b>	Jerry Chong
<b>Position:</b>	General Manager of Finance and Corporate Services
<b>Telephone Number:</b>	604-276-4064
<b>Email address:</b>	JChong@richmond.ca

<b>Stationary Emission Sources:</b>				<b>4,350</b>
<b>Building Fuel</b>	<b>Units</b>	<b>Consumption</b>	<b>Emissions Factor</b>	<b>Emissions (tCO<sub>2</sub>e)</b>
01 - Fortis BC Natural Gas	GJ	77,819	0.049846500	3,879
Electricity - BC Hydro	kWh	41,695,937	0.000011300	471
<b>Mobile Emission Sources:</b>				<b>2,641</b>
<b>Vehicle Class</b>	<b>Units</b>	<b>Consumption</b>	<b>Emissions Factor</b>	<b>Emissions (tCO<sub>2</sub>e)</b>
01 Light-duty Vehicle - Gasoline	L	34,755	0.002201676	77
02 Light-duty Vehicle - Diesel	L	127	0.002633008	0
07 Light-duty Truck - Gasoline	L	175,688	0.002201676	387
08 Light-duty Truck - Diesel	L	12,832	0.002633484	34
09 Light-duty Truck - Propane	L	2,965	0.001540340	5
13 Heavy Duty - Gasoline	L	362,795	0.002246839	815
14 Heavy Duty - Diesel	L	315,131	0.002616375	824
Heavy Duty Propane	L	96,014	0.001540340	148
18 Off-Road - Gasoline E5	L	20,994	0.002351258	49
19 Off-Road - Diesel	L	114,610	0.002635377	302
<b>Total Directly Delivered Services Emissions</b>				<b>6,991</b>
<b>Contracted Mobile Emission Sources:</b>				<b>2,350</b>
<b>Vehicle Class</b>	<b>Units</b>	<b>Consumption</b>	<b>Emissions Factor</b>	<b>Emissions (tCO<sub>2</sub>e)</b>
14 Heavy Duty - Diesel	L	19,918	0.002616375	52
Heavy Duty - Diesel B5	L	439,648	0.002589570	1,138
Heavy Duty Propane	L	75,390	0.001540340	116
Heavy Duty Natural Gas	L	24,947	0.003115706	78
13 Heavy Duty - Gasoline	L	8,688	0.002246839	20
19 Off-Road - Diesel	L	359,058	0.002635377	946
<b>Total Contracted Services Emissions</b>				<b>2,350</b>
<b>Total Traditional Services GHG Emissions</b>				<b>9,341</b>