

## Survey Template

### For the *2016 CARIP Climate Action/Carbon Neutral Progress Survey*

The 2016 CARIP Climate Action/Carbon Neutral Survey uses SurveyMonkey® software. SurveyMonkey® acquired FluidSurveys™, which is the software that was used for CARIP reporting for the past 2 years.

**Local governments are required to submit the *2016 CARIP Climate Action/Carbon Neutral Progress Survey* on or before June 1, 2017.**

Local governments are also required to publicly report the information submitted in the *2016 CARIP Climate Action/Carbon Neutral Progress Survey*. Local governments can generate a report by:

- creating a report based on the populated Survey Template; or,
- creating a report in another format that contains the information submitted in the 2016 CARIP Climate Action/Carbon Neutral Progress Survey.

In response to local government input, the Survey Template has been created to assist with collecting information for the *2016 CARIP Climate Action/Carbon Neutral Progress Survey*, and follows the same structure as the survey.

Responses entered into the Survey Template can be cut and pasted into the online survey. The survey asks for up to five actions in each category, and there is a place in the survey to report additional actions if desired. In the Survey Template, simply add more lines to the tables to report more than five actions.

Use of the Survey Template is recommended. Local governments are encouraged to edit the populated Survey Template and use it for their public report, **as the SurveyMonkey® survey will not enable survey respondents to generate a report of their responses.**

Further information on CARIP can be found on the [Ministry of Community Sport and Cultural Development's website](#).

The Government of BC will not collect, use, or disclose personal information using SurveyMonkey®. Please be aware however that IP addresses are collected by SurveyMonkey® itself, and these IP addresses and other information collected will be stored on SurveyMonkey®'s servers located outside of Canada. Please do not provide any third-party information (i.e. talk about others) in your responses to the survey.

# Climate Action Revenue Incentive (CARIP) Public Report for 2016

**Local Government: City of Langley**

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The City of Langley has completed the 2016 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2016 and proposed for 2017 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

## 2016 BROAD PLANNING ACTIONS

### Broad Planning Actions

Broad Planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, centred) plays an especially important role in energy and GHG reduction.

Community-Wide Actions Taken in 2016	
	Adopt Official Community Plan amendments incorporating key recommendations from Environmentally Sensitive Areas Mapping Study.
Community-Wide Actions Proposed for 2017	
	Prepare new zoning bylaw including green building and sustainable development provisions.

Corporate Actions Taken in 2016	
	Complete 2015 Corporate Energy & GHG Emissions Inventory.
Corporate Actions Proposed for 2017	
	Complete 2016 Corporate Energy & GHG Emissions Inventory.

Broad Planning	
What is (are) your current GHG reduction target(s)?	-Reduce community emissions by 20,992 tonnes CO <sub>2</sub> e from 2017 forecast (16% reduction from 2007 level) -Reduce corporate emissions by 134 tonnes CO <sub>2</sub> e from 2018 forecast (12% reduction from 2008 level)
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes

What plans, policies or guidelines govern the implementation of climate mitigation in your community? <ul style="list-style-type: none"> <li>• Community Energy and Emissions (CEE) Plan</li> <li>• Climate Action Plan</li> <li>• Integrated Community Sustainability Plan</li> <li>• Official Community Plan (OCP)</li> <li>• Regional Growth Strategy (RGS)</li> <li>• Do not have a plan</li> <li>• Other:</li> </ul>	Yes No Yes Yes Yes
Does your local government have a corporate GHG reduction plan?	Yes
Does your local government have a climate reserve fund or something similar?	Yes

## 2016 BUILDINGS AND LIGHTING ACTIONS

### Building and Lighting Actions

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term. This category also includes reductions realized from energy efficient street lights and lights in parks or other public spaces.

Community-Wide Actions Taken in 2016	
	Review green building and sustainable development provisions as part of proposed new zoning bylaw.
Community-Wide Actions Proposed for 2017	
	Prepare new zoning bylaw including green building and sustainable development provisions.

Corporate Actions Taken in 2016	
	Replace boilers at Al Anderson Memorial Pool with high efficiency units.
	Replace 28 lights at City Hall with LED lights.
	Complete LED street light retrofit study.
	Replace street lights with LED units on 203 Street from Nicomekl River to Michaud Crescent.
Corporate Actions Proposed for 2017	
	Replace 30 x 150 w metal halide street lights around City Hall/Timms Community Centre with LED

	units (36 w or 72 w).
	Replace street lights on 56 Avenue from Glover Road to Langley Bypass with LED units.
	Replace street lights with LED units on 203 Street from Grade Crescent to Nicomekl River.

## 2016 ENERGY GENERATION ACTIONS

### Energy Generation Actions

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

Community-Wide Actions Taken in 2016	
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	
Corporate Actions Proposed for 2017	


Energy Generation	
Is your local government developing, or constructing:	
<ul style="list-style-type: none"> <li>• A district energy system</li> <li>• A renewable energy system</li> </ul>	No No
Is your local government operating:	
<ul style="list-style-type: none"> <li>• A district energy system</li> <li>• A renewable energy system</li> </ul>	No No
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the Integrated Resource Recovery guidance page on the <a href="#">BC Climate Action Toolkit</a> ?	Yes

## 2016 GREENSPACE/ NATURAL RESOURCE PROTECTION ACTIONS

### Greenspace Actions

Greenspace/Natural Resource Protection refers to the creation of parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites as well as the protection of wetlands, waterways and other naturally occurring features.

Community-Wide Actions Taken in 2016	
	Complete City Park Master Plan.
	Submit application under Metro Vancouver Sustainability Innovation Fund for Langley Urban Agriculture Demonstration Project.
	Implement Brydon Lagoon enhancements in accordance with Pond Management Strategy.
	Complete Linwood Park community gardens.
Community-Wide Actions Proposed for 2017	
	Complete Langley Urban Agriculture Demonstration Project Phase I (planning) in partnership with Metro Vancouver and Kwantlen Polytechnic University.
	Complete Penzer Park upgrades in accordance with Buckley-Penzer Park Master Plan.
	Prepare plan for Michaud Park community gardens.

Corporate Actions Taken in 2016	

<b>Corporate Actions Proposed for 2017</b>	
	Replace lighting in Douglas Park with LED units.

<b>Greenspace</b>	
Does your local government have urban forest policies, plans or programs?	No

**2016 SOLID WASTE ACTIONS**

**Solid Waste Actions**

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

<b>Community-Wide Actions Taken in 2016</b>	
	Undertake zero waste education program in City schools.
<b>Community-Wide Actions Proposed for 2017</b>	

<b>Corporate Actions Taken in 2016</b>	
<b>Corporate Actions Proposed for 2017</b>	


<b>Solid Waste</b>	
Does your local government have construction and demolition waste reduction policies, plans or programs?	Yes
Does your local government have organics reduction/diversion policies, plans or programs?	Yes

## 2016 TRANSPORTATION ACTIONS

### Transportation Actions

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities.

<b>Community -Wide Actions Taken in 2016</b>	
	Complete 203 Street improvements including traffic circle and bikeway from Nicomekl River to Michaud Crescent.
	Complete 5-year implementation strategy for bicycle and pedestrian network plans.
	Add bike lanes on 53 Avenue from 200 Street to 203 Street.
	Provide secure bicycle lockers and change facilities to the public at Timms Community Centre.
<b>Community-Wide Actions Proposed for 2017</b>	
	Complete 56 Avenue improvements from Glover Road to Langley Bypass including bicycle lanes.
	Complete 48 Avenue bike lanes from 200 Street to 203 Street.
	Complete 203 Street improvements including bikeway from Grade Crescent to Nicomekl River.
	Install sidewalks on 46A Avenue from 204 Street to 208 Street.

<b>Corporate Actions Taken in 2016</b>	
	Provide secure bicycle lockers and change facilities to City staff at Timms Community Centre.
<b>Corporate Actions Proposed for 2017</b>	




<b>Transportation</b>	
Does your local government have policies, plans or programs to support:	
• Walking	Yes
• Cycling	Yes
• Transit Use	Yes
• Electric Vehicle Use	Yes
• Other (please specify)	No
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	No
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

## 2016 WATER AND WASTEWATER ACTIONS

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions.

<b>Community-Wide Actions Taken in 2016</b>	
	Undertake water conservation education program.
	Update water shortage response plan bylaw.
	Replace aging AC water pipes.
<b>Community-Wide Actions Proposed for 2017</b>	
	Complete Nicomekl River Integrated Stormwater Management Plan in partnership with the Township of Langley.
	Replace aging AC water pipes.

<b>Corporate Actions Taken in 2016</b>	

<b>Corporate Actions Proposed for 2017</b>	
<b>Water Conservation</b>	
Does your local government have water conservation policies, plans or programs?	Yes

## 2016 CLIMATE CHANGE ADAPTATION ACTIONS

### Climate Change Adaptation Actions

For local governments, adaptation to a changing climate can take the form of changes in policy, management, technology and behaviour that minimize negative impacts or exploit opportunities. It can involve both “hard” and “soft” solutions, including: changes in infrastructure engineering, planning, zoning, bylaws, and public education.

<b>Climate Change Adaptation Actions Taken in 2016</b>	
<b>Climate Change Adaptation Actions Proposed for 2017</b>	
	Complete Flood Risk Management Strategy.

<b>Resources you have used to support climate change adaptation (e.g. <a href="#">Plan2Adapt</a>, <a href="#">Preparing for Climate Change: Implementation Guide</a>)</b>	

**In 2016 did you consider climate change impacts in any of the following areas? (check if yes)**

Risk reduction strategies	Yes
Risk and Vulnerability assessment	Yes
Asset management	Yes
Infrastructure upgrades (e.g. stormwater system upgrades)	No
Cross-department working groups	No
Emergency response planning	Yes
Land-use policy changes (eg. OCP, DPA)	No
Economic diversification initiatives	No
Ecosystem-based approaches (incl. shorelines)	Yes
Incentives (e.g. property owner reducing stormwater run-off)	No
Public education and awareness	No
Research (e.g. mapping, participation in studies)	No
Other (Please Identify):	Yes

## 2016 OTHER CLIMATE ACTIONS

### Other Climate Actions

This section provides local governments the opportunity to report other climate actions that are not captured in the categories above.

Community-Wide Actions Taken in 2016	
Community-Wide Actions Proposed for 2017	

Corporate Actions Taken in 2016	

Corporate Actions Proposed for 2017	

Other	
Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)</a> ?	No
Have you used CLIC?	No

## INNOVATION AND PEER-TO-PEER LEARNING

### Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide GHG reduction or climate change adaptation activity that your local government has undertaken and that has had or has the potential to have a significant impact. Projects included here may be featured as success stories on the B.C. Climate Action Toolkit and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Community-Wide Innovative Action
Corporate Innovative Action

### Programs, Partnerships and Funding Opportunities

Local governments often rely on programs, partnerships and funding opportunities to achieve their climate action goals. Please share the names of programs and organizations that have supported your local government’s climate actions by listing each entry in the box below.

Programs and Funding
Metro Vancouver Sustainability Innovation Fund (Langley Urban Agriculture Demonstration Project).

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## 2016 CARBON NEUTRAL REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the Climate Action Charter. Working with B.C. local governments, the joint Provincial-UBCM Green Communities Committee (GCC) has established a common approach to determining carbon neutrality for the purposes of the Climate Action Charter, including a Carbon Neutral Framework and supporting guidance for local governments on how to become carbon neutral.

Prior to completing this survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially Becoming Carbon Neutral: A Guide for Local Governments in British Columbia.

### Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2016?	Yes
If your local government measured 2016 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from services delivered <u>directly</u> by your local government:	605
If your local government measured 2016 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	128
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2016</b>	<b>733 tCO<sub>2</sub>e</b>

### Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions by one or a combination of the following actions:

- undertake GCC-supported Option 1 Projects
- undertake GCC-supported Option 2 Projects (community GHG emissions reduction projects that meet project eligibility requirements)
- purchase carbon offsets from a credible offset provider

**If applicable, please report the 2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from Option 1 GHG Reduction Projects:**

OPTION 1 PROJECTS	REDUCTIONS

Energy Efficient Retrofits	
Solar Thermal	
Household Organic Waste Composting	520
Low Emission Vehicles	
Avoided Forest Conversion	
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016</b>	<b>520 tCO2e</b>

If applicable, please report the names and 2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO2e)) being claimed from Option 2 GHG Reduction Projects:

OPTION 2 PROJECT NAME	REDUCTIONS
<b>TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2016</b>	<b>tCO2e</b>

If applicable, please report the number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO2e)) from an offset provider for the 2016 reporting year:

(NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND)

OFFSET PROVIDER NAME	OFFSETS

<b>TOTAL D: OFFSETS PURCHASED FOR 2016</b>	<b>tCO<sub>2</sub>e</b>
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**TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 520 tCO<sub>2</sub>e**

### **Corporate GHG Emissions Balance for 2016**

Your local government's Corporate GHG Emissions Balance is the difference between total corporate GHG emissions (direct + contracted emissions) and the GHG emissions reduced through GCC Option 1 and Option 2 projects and/or the purchase of offsets.

**CORPORATE GHG EMISSIONS BALANCE FOR 2016 = (A – (B+C+D)) = 213 tCO<sub>2</sub>e**

**If your Corporate GHG Emissions Balance is negative or zero,  
your local government is carbon neutral.  
CONGRATULATIONS!**

## **GCC CLIMATE ACTION RECOGNITION PROGRAM**

### **Green Communities Committee (GCC) Climate Action Recognition Program**

The joint Provincial-UBCM Green Communities Committee (GCC) is pleased to be continuing the Climate Action Recognition Program again this year. This multi-level program provides the GCC with an opportunity to review and publicly recognize the progress and achievements of each Climate Action Charter (Charter) signatory.

This year a new recognition level has been added – **Level 3: Accelerating Progress on Charter Commitments**–. Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

**Level 1 – Demonstrating Progress on Charter Commitments:** for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

**Level 2 – Measuring GHG Emissions:** for local governments that achieve level 1, and who have measured their Corporate GHG Emissions for the reporting year and demonstrate that they are familiar with the Community Energy and Emissions Inventory (CEEI)

**Level 3 – Accelerating Progress on Charter Commitments:** for those local governments who have achieved level 1 and 2 and have demonstrated undertaking significant action (corporately or community wide) to reduce GHG emissions in the reporting year (ie: through undertaking a GHG reduction project, purchasing offsets, establishing a reserve fund).

**Level 4 - Achievement of Carbon Neutrality:** for local governments who achieve carbon neutrality in the reporting year.

**For purposes of Level 3 recognition, if applicable, please identify any new or ongoing corporate or community wide GHG reduction projects (other than an Option 1 or Option 2 project) undertaken by your local government that reflects a significant investment of time or financial resources and is intended to result in significant GHG reductions:**

<b>PROJECT NAME:</b>
<b>Al Anderson Memorial Pool Boiler Replacement (2<sup>nd</sup> largest single source of GHG emissions – 77 tonnes CO<sub>2</sub>e)</b>

**Based on your local government's 2016 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:**

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	Yes
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	