

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



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**Date:** June 1, 2017

The Strathcona Regional District 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Progress on an OCP for Area D that includes amendments pertaining to environmental protection, parks and transportation.
	Continued emphasis on broadband connectivity as a strategic priority for the region.
	Development of the Strathcona Community Health Network in collaboration with Island Health.
<b>Community-Wide Actions Proposed for 2017</b>	
	Adoption of new OCP for Area D.
	Develop a strategic plan to advance broadband connectivity in the region.
	Continued development of the Strathcona Community Health Network.
	Zoning bylaw review for Area B that includes amendments pertaining to increased residential density and aquaculture practices.
	Apply for grant funding to undertake an integrated sustainability plan for Electoral Area C.
	Improve the aerial photography and LiDAR data for Area D.

<b>Corporate Actions Taken in 2016</b>	
	Continued with project to assess record management requirements.
	Commenced work on asset management.
<b>Corporate Actions Proposed for 2017</b>	
	Progress work on records management – one benefit of this project would be to aim to reduce the physical and digital space required to manage records along with their energy needs.
	Restructure and renovation of office space requirements.
	Multiple IT infrastructure and office equipment upgrades.
	Replacement of fleet vehicle with a new vehicle known to have green energy saving features.

<b>Broad Planning</b>	
What is (are) your current GHG reduction target(s)?	<p>Bylaw No. 3050, Quadra Island Official Community Plan Bylaw 2007, has reduction policies with the following targets: 16% below 2017 by 2020 and 40% by 2050, with a list of what will be done to achieve that.</p> <p>Bylaw No. 139, Cortes Official Community Plan Bylaw 2012, has GHG reduction policies with the following targets: working towards the provincial goal of 33% reduction in GHG emissions by 2020, and more specifically: 16% below 2017 by 2020 with a list of what will be done to achieve that.</p> <p>Bylaw No. 2224, Menzies Bay Area Official Community Plan Bylaw 2000, has GHG reduction policies.</p>
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	<b>Yes</b>
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>	<b>No</b> <b>No</b> <b>No</b> <b>Yes</b> <b>No</b> <b>No</b>
Does your local government have a corporate GHG reduction plan?	<b>No</b>
Does your local government have a climate reserve fund or something similar?	<b>No</b>

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Gas tax funding granted to the Whaletown Community Club to undertake energy efficiency upgrades to Gorge Hall, Cortes Island
	Converted underwater pool lighting to LED.
	Continued LED replacements around the Strathcona Gardens Recreation Complex.
	Completed condition assessment of Strathcona Gardens Recreation Complex.
	Gathered background technical information and preliminary design work for the revitalization of the Strathcona Gardens Recreation Complex. It is anticipated that this project will provide many opportunities to improve energy efficiency.
<b>Community-Wide Actions Proposed for 2017</b>	
	Continuation of the energy efficiency upgrades to Gorge Hall, Cortes Island
	Upgrade the stage/theatre lighting of the Quadra Island Recreational Centre to LED lighting.
	Upgrade to LED lighting at the Strathcona Gardens Recreation Complex car park.
	Replacement of expansion joints in both pools in an effort to stop any water loss and prevent water leaks in the future.
	Ongoing feasibility study of the revitalization of the Strathcona Gardens Recreation Complex.
	Continue to gather background technical information and preliminary design work for the revitalization of the Strathcona Gardens Recreation Complex. It is anticipated that this project will provide many opportunities to improve energy efficiency.

<b>Corporate Actions Taken in 2016</b>	
	None
<b>Corporate Actions Proposed for 2017</b>	
	Replacement of windows in Corporate Office
	Inclusion of energy efficient options in Corporate Office building retrofit.

## 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.

<b>Community-Wide Actions Taken in 2016</b>	
	Installation of new ammonia chiller with a variable frequency drive pump at the Strathcona Gardens Recreation Complex Arena 2.
<b>Community-Wide Actions Proposed for 2017</b>	
	Install back up generator for Quathiaski Cove Wastewater Treatment Plant.
	Design and installation of a booster pump station for the water distribution system in Area D.
	Apply for grant funding to undertake energy efficiency upgrades including a renewable energy system at the Strathcona Gardens Recreation Complex.

Corporate Actions Taken in 2016	
	None
Corporate Actions Proposed for 2017	
	None

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 Yes
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 Yes
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	
	Trail maintenance and enhancement in all electoral areas with a park service.
	Installation of outdoor exercise equipment.
	Development of a community garden.
	Public beach access planning (Phase 1)
	Trail development and maintenance – Electoral Areas B, C and D
	Investigate the acquisition of two land parcels to adjoin park lands on Cortes Island – Electoral Area B.
Community-Wide Actions Proposed for 2017	
	Ongoing trail development and maintenance – Electoral Areas B, C and D.
	Investigation of a recreation hub on Quadra Island.
	Identification and improvements of public beach access (phase 2) at various locations including obtaining tenure for trail access where required – Electoral Areas B and C.
	Ongoing investigation of the acquisition of two land parcels to adjoin park lands on Cortes Island – Electoral Area B.
	Continue with cross island trail development on Cortes – Electoral Area B.

Improvements to the Quadra Island – Quathiaski Cove Village Plans – Electoral Area C.
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<b>Corporate Actions Taken in 2016</b>
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None
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<b>Corporate Actions Proposed for 2017</b>
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None
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<b>Greenspace</b>
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Does your local government have urban forest policies, plans or programs?	<b>No</b>
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## 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>
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Ongoing participation in the Comox Strathcona Regionals Solid Waste Committee.
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Sayward Valley annual cleanup and residential waste pick-up. After annual cleanup recyclable items are diverted to the recyclable waste stream.
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<b>Community-Wide Actions Proposed for 2017</b>
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Provide curbside recycling blue bins to Cortes residential properties to effectively continue the recycling program.
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Continued participation in the Comox Strathcona Regional Solid Waste Committee.
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Continue with Sayward Valley annual cleanup and residential waste pick-up. After annual cleanup recyclable items are diverted to the recyclable waste stream.
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<b>Corporate Actions Taken in 2016</b>
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Corporate Office reduces waste by recycling organic and coffee waste produced during office hours.
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<b>Corporate Actions Proposed for 2017</b>
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Improve Bylaw No. 912 to accurately bill non-residential disposers of solid waste on Cortes Island – Electoral Area B. The proposed amendments will enhance the efficiency of the commercial solid waste disposal service.
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<b>Solid Waste</b>
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Does your local government have construction and demolition waste reduction policies, plans or programs?	<b>No</b>
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Does your local government have organics reduction/diversion policies, plans or programs?	<b>Yes</b>
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## 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.

Community -Wide Actions Taken in 2016	
	Cortes Island Transportation Demand study.
Community-Wide Actions Proposed for 2017	
	Completion of a Cortes Island Transportation Demand Study to determine how vehicle dependency in Electoral Area B can be reduced.

Corporate Actions Taken in 2016	
	Continued promotion of alternative transport modes such as the Ride to Work week program and car-pooling amongst staff.
Corporate Actions Proposed for 2017	
	Continued promotion of alternative transport modes such as the Ride to Work week program and car-pooling amongst staff.

Transportation	
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)	
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.

Community-Wide Actions Taken in 2016	
	Implemented water restrictions during low rainfall periods in the water service area.
Community-Wide Actions Proposed for 2017	
	Construction completion of the Quathiaski Sewer System Extension to include 43 additional properties.
	Continue to implement water restrictions in the water service area (the northern part of Electoral Area D)
	Conduct a feasibility study and condition assessment of the water distribution system in Electoral Area D.

Corporate Actions Taken in 2016	
	None
Corporate Actions Proposed for 2017	
	None
Water Conservation	
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.

Climate Change Adaptation Actions Taken in 2016	
	Oyster River trail restoration and build-up surface to reduce impacts from future flooding.
Climate Change Adaptation Actions Proposed for 2017	
	Assess the condition of the Glenmore Dike and associated flood mitigation structures and determine options to upgrade.
	Continue Oyster River trail restoration and build-up surface to reduce impacts from future flooding.



Resources you have used to support climate change adaptation (e.g. <a href="#">Plan2Adapt</a> , <a href="#">Preparing for Climate Change: Implementation Guide</a> )	
<input type="checkbox"/>	Plan2Adapt guidance page on the BC Climate Action Toolkit.
<input type="checkbox"/>	Preparing for Climate Change – An Implementation Guide for Local Governments in BC.
<input type="checkbox"/>	Climate Change Adaption guidance page on the BC Climate Action Toolkit.

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	
Asset management	Yes
Infrastructure upgrades (e.g. stormwater system upgrades)	
Cross-department working groups	Yes
Emergency response planning	
Land-use policy changes (eg. OCP, DPA)	Yes
Economic diversification initiatives	
Ecosystem-based approaches (incl. shorelines)	Yes
Incentives (e.g. property owner reducing stormwater run-off)	
Public education and awareness	Yes
Research (e.g. mapping, participation in studies)	
Other (Please Identify):	

## 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	
<input type="checkbox"/>	None
Community-Wide Actions Proposed for 2017	
<input type="checkbox"/>	None

Corporate Actions Taken in 2016	
<input type="checkbox"/>	None
Corporate Actions Proposed for 2017	
<input type="checkbox"/>	None

Other	
Are you familiar with the <a href="#">Community Lifecycle Infrastructure Costing Tool (CLIC)</a> ?	Yes
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
UBCM Strategic Priorities Fund (gas tax) EMBC Flood Protection Program

## 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?	<b>Yes</b>
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:	709
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:	
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2016</b>	<b>709 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	6.4
Solar Thermal	
Household Organic Waste Composting	

Low Emission Vehicles	
Avoided Forest Conversion	
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016</b>	<b>6.4 tCO<sub>2</sub>e</b>

If applicable, please report the names and 2016 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) 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>tCO<sub>2</sub>e</b>

If applicable, please report the number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) 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>

**TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 6.4 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)) = 702.6 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>

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