

# Climate Action Revenue Incentive (CARIP) Public Report for 2017

**Local Government:**  
Comox Valley Regional District

**Report Submitted by:**  
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The Comox Valley Regional District has completed the 2017 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2017 and proposed for 2018 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

## 2017 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 2017</b>	
	Assessed need for 5 year review of Regional Growth Strategy
	Continued review of Comox Valley zoning bylaw
	Continued local area planning process for Saratoga Miracle Beach
	Revised Master Development Agreement signed for Union Bay Estates
	Master Development Agreement signed for Saratoga Beach Estates
<b>Community-Wide Actions Proposed for 2018</b>	
	Regional Growth Strategy First Nations implementation agreement
	Implement specific RGS revisions per board direction
	Adopt updated Local Area Plan for Saratoga Miracle Beach
	Initiate review of Union Bay local area plan
	Update development permit areas

<b>Corporate Actions Taken in 2017</b>	
	Corporate carbon neutral commitment – purchase credits to offset emissions
<b>Corporate Actions Proposed for 2018</b>	
	Assessment of additional energy conservation measures at recreation facilities
	Initiate update of 2011 Corporate Energy Plan

### Broad Planning

What is (are) your current GHG reduction target(s)?	<b>20% reduction in corporate GHG emissions by 2020</b> <b>50% reduction in community GHG emissions by 2030</b>	
Are you familiar with your community's community energy and emissions inventory (e.g. CEEI or another inventory)?		<b>Yes</b>
What plans, policies or guidelines govern the implementation of climate mitigation in your community?		
• Community Energy and Emissions (CEE) Plan		<b>Yes</b>
• Community- Wide Climate Action Plan		<b>Yes</b>
• Integrated Community Sustainability Plan		<b>Yes</b>
• Official Community Plan (OCP)		<b>Yes</b>
• Regional Growth Strategy (RGS)		<b>Yes</b>
• Do not have a plan		<b>No</b>
• Other:		<b>No</b>
Does your local government have a corporate GHG reduction plan?		<b>Yes</b>

## 2017 BUILDING 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 2017	
	Continued participation in the provincial oil to heat pump incentive program
	Implemented a wood stove to heat pump exchange option as part of the wood stove exchange program
	Researched local implementation options for the BC Energy Step Code
Community-Wide Actions Proposed for 2018	
	Develop and launch a region-wide home energy efficiency outreach/incentive program & explore partnership potential with other stakeholders
	Offer incentives to new homes built to Step 3 or higher on the BC Energy Step Code

Corporate Actions Taken in 2017	
	Completed construction of new Hornby Island fire hall with Passive House design features
	Initiated design of new corporate head office building to LEED standards

	Completed implementation of ice plant heat recovery project at Comox Valley sports centre
	LED lighting installation at recreation facilities
<b>Corporate Actions Proposed for 2018</b>	
	Start construction on new corporate head office building (to LEED standards)
	Initiate an update to the 2011 Corporate Energy Plan

<b>Building and Lighting</b>	
The Province has committed to taking incremental steps to increase energy-efficiency requirements in the BC Building Code to make buildings net-zero energy ready by 2032. The BC Energy Step Code--a part of the BC Building Code--supports that effort	
Is your local government aware of the BC Energy Step Cost?	Yes
Is your local government implementing the BC Energy Step Code?	Yes

## 2017 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 2017</b>	
	Implemented a wood stove to heat pump exchange option as part of the wood stove exchange program
	Continued participation in the provincial oil to heat pump incentive program
<b>Community-Wide Actions Proposed for 2018</b>	
	Host solar PV workshop for residents, and offer participation in bulk-buy opportunity
	Continue to offer the wood stove to heat pump exchange option through the wood stove exchange program

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Corporate Actions Taken in 2017	
	Continued tracking and reporting on energy generation data from CVRD solar PV installations
Corporate Actions Proposed for 2018	
	Install 6kW solar PV system on water services building
	Continue tracking and reporting on energy generation data from CVRD solar PV installations

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>	<b>No</b> <b>Yes</b>
Is your local government operating: <ul style="list-style-type: none"> <li>• A district energy system</li> <li>• A renewable energy system</li> </ul>	<b>No</b> <b>Yes</b>
Is your local government connected to a district energy system that is operated by another energy provider?	<b>No</b>
Are you aware of the Integrated Resource Recovery guidance page on the <a href="#">BC Climate Action Toolkit</a> ?	<b>Yes</b>
Are you familiar with the 2017 " <a href="#">List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?</a> "	<b>Yes</b>

## 2017 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.

<b>Community-Wide Actions Taken in 2017</b>	
	Continued master plan process for Seal Bay Park
	Obtained licence of occupation for development of community greenspace at Saratoga Beach
	Continued development of the One Spot Trail
	Completed planning process for Mount Geoffrey Park on Hornby Island
<b>Community-Wide Actions Proposed for 2018</b>	
	Complete Seal Bay Park master plan
	Complete development of community greenspace at Saratoga Beach
	Continue development of Denman Island cross-island trail

<b>Corporate Actions Taken in 2017</b>	
<b>Corporate Actions Proposed for 2018</b>	
	Initiate redevelopment of a brownfield property for new corporate head office building

<b>Greenspace</b>	
Does your local government have urban forest policies, plans or programs?	<b>n/a</b>
Does your local government have policies, plans or programs to support local food production?	<b>Yes</b>

## 2017 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 2017</b>	
	Completed construction of first phase of new landfill cell at Comox Valley waste management centre

	Launched illegal dumping outreach and enforcement program
	Initiated a review of the solid waste management plan
	Initiated regional organics management planning process
<b>Community-Wide Actions Proposed for 2018</b>	
	Update closure and operations plans for Campbell River landfill
	Complete a waste composition study for Comox Valley and Campbell River landfills
	Evaluation of waste to energy technologies for future consideration
	Evaluation of options for beneficial re-use of landfill gas captured at Comox Valley landfill

<b>Corporate Actions Taken in 2017</b>	
	Staff participation in “Pitch-in Canada” clean-up day
<b>Corporate Actions Proposed for 2018</b>	
	Staff participation in “Pitch-in Canada” clean-up day

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

## 2017 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 2017</b>	
	Introduced 900 transit service hours in two new rural “on-request” routes
	Facilitated Comox Valley participation in “Commuter Challenge” week for the first time
	Investigation of integrated regional transportation governance options

	Development of Comox Road multi-use path concept
	Service planning for conventional transit system improvements, including frequent transit corridor study
<b>Community-Wide Actions Proposed for 2018</b>	
	Service changes to conventional transit system, including addition of 4,000 service hours
	Facilitate Comox Valley participation in “Commuter Challenge” week
	Work with BC Transit to implement “real-time” technology on conventional transit system
	Advocacy work with other Vancouver Island regional districts on active transportation standards for roadside greenways and bicycle lanes in un-incorporated areas

<b>Corporate Actions Taken in 2017</b>	
	Participation in “Bike to Work” week
	Participation in “Commuter Challenge” week
	Investigated TDM options for staff travel to/from new office building
<b>Corporate Actions Proposed for 2018</b>	
	Participation in “Bike to Work” week
	Participation in “Commuter Challenge” week
	Purchase of a new shared fleet battery electric or plug-in hybrid electric vehicle

<b>Transportation</b>	
Does your local government have policies, plans or programs to support:	
• Walking	<b>Yes</b>
• Cycling	<b>Yes</b>
• Transit Use	<b>Yes</b>
• Electric Vehicle Use	<b>Yes</b>
• Other (please specify)	<b>Yes</b>
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)?	<b>No</b>
Does your local government integrate its transportation and land use planning?	<b>No</b>



## 2017 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 2017	
	Provide rebates for smart irrigation control to reduce water consumption
	Continued implementation of the watershed protection plan
	Implement water restrictions and promotion of water efficiency practices
	Planning and design work for water filtration plant and other upgrades to water supply system
Community-Wide Actions Proposed for 2018	
	Installation of UV disinfection at water treatment plant
	Implement water restrictions and promotion of water efficiency practices
	Continued implementation of the watershed protection plan
	Install updated odour control measures at the Comox Valley Water Pollution Control Centre
	Construction of the Hudson Trunk regional sewer line

Corporate Actions Taken in 2017	
	Design of new office building includes water efficiency measures
Corporate Actions Proposed for 2018	
	Construction of new office building, including water efficiency measures

Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes

## 2017 CLIMATE CHANGE ADAPTATION ACTIONS

This section of the CARIP survey is designed to collect information related to the types of climate impacts local governments are experiencing and how they are being addressed.

<b>Please identify the THREE climate impacts that are most relevant to your Local Government.</b>	
<ul style="list-style-type: none"> <li>• Warmer winter temperatures reducing snowpack</li> <li>• Changes to temperature and precipitation causing seasonal drought</li> <li>• Heatwaves impacting population health</li> <li>• Increased temperatures increasing wildfire activity</li> <li>• Increased temperatures affecting air quality</li> <li>• Changing temperatures influencing species migration and ecosystem shifts</li> <li>• Extreme weather events contributing to urban and overland flooding</li> <li>• Sea level rise and storms causing coastal flooding and/or erosion</li> </ul>	
Other:	

<b>In 2017 has your local government addressed the impacts of a changing climate using any of the following?</b>	
Risk and Vulnerability Assessments	Yes
Risk Reduction Strategies	Yes
Emergency response planning	Yes
Asset management	No
Natural/Eco asset management strategies	No
Infrastructure upgrades (e.g. storm water system upgrades)	Yes
Beach Nourishment projects	No
Economic diversification initiatives	No
Strategic and financial planning	No
Cross-department working groups	No
OCP policy changes	Yes
Changes to zoning and other bylaws and regulations	Yes
Incentives for property owner (e.g. reducing storm water run-off)	Yes
Public education and awareness	Yes
Research	Yes
Mapping	Yes
Partnerships	Yes

Other:

<b>Climate Change Adaptation Actions Taken in 2017</b>	
Please elaborate on key actions and/or partnerships your local government has engaged in to prepare for, and adapt to a changing climate. Add links to key documents and information where appropriate.	
	Encourage use of rain barrels, rain gardens, bioswales and maintaining trees and vegetation on properties
	Promote water balance model for land development activities
	Initiated a Coastal Shoreline initiative, to enhance shoreline resiliency in response to climate change
<b>Climate Change Adaptation Actions Proposed for 2018</b>	
	Continue the Coastal Shoreline Initiative
<b>For more information please contact:</b>	





Partners for Climate Protection Program, BC Community Energy Association, BC Wood Stove Exchange Program, Oil to Heat Pump program

## Adaptation

### Programs and Funding

National Disaster Mitigation Program, Community Emergency Preparedness Fund, BC Regional Adaptation Collaborative

## 2017 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 portion of the survey, please ensure that you are familiar with guidance available on the B.C. Climate Action Toolkit website, especially the [Becoming Carbon Neutral: A Guide for Local Governments in British Columbia](#).

*Please note: As a result of the BC Recycling Regulation, local governments are no longer required to account for greenhouse gas (GHG) emissions from vehicles, equipment and machinery required for the collection, transportation and diversion of packaging and printed paper, in their annual Climate Action Revenue Incentive Program (CARIP) reports.*

### Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2017?	Yes
If your local government measured 2017 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:	1,888
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent)	115

from <u>contracted</u> services:	
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2017</b>	<b>2003 tCO<sub>2</sub>e</b>

### Reporting Reductions and Offsets

To be carbon neutral, a local government must balance their TOTAL corporate GHG emissions generated in 2017 by one or a combination of the following actions:

- undertake GCC-supported Option 1 Project(s)
- undertake GCC-supported Option 2 Project(s)
- purchase carbon offsets from a credible offset provider

**If applicable, please report the 2017 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	
Low Emission Vehicles	
Avoided Forest Conversion	
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2017</b>	<b>tCO<sub>2</sub>e</b>

**If applicable, please report the names and 2017 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 2017</b>	<b>tCO<sub>2</sub>e</b>

If applicable, please report the name of the offset provider, type of project and number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO2e)) from an offset provider for the 2017 reporting year:

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

OFFSET PROVIDER NAME	OFFSETS
3 Degrees, East Central Landfill Gas project, Minnesota	2,003
<b>TOTAL D: OFFSETS PURCHASED FOR 2017</b>	<b>2,003 tCO2e</b>

**TOTAL REDUCTIONS AND OFFSETS FOR 2017 (Total B+C+D) = 2,003 tCO2e**

### Corporate GHG Emissions Balance for 2017

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 2017 = (A – (B+C+D)) = 0 tCO2e**

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

**CONGRATULATIONS!**

If applicable, please record any emissions reductions you will be carrying over for future years and the source of the emissions reductions, including the year they were earned (E.g., Organics diversion, 2016 100 tCO2e).

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS



<b>BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR</b>	<b>tCO2e</b>

Carbon Neutral Reporting	
Does your local government have a climate reserve fund or something similar?	<b>Yes</b>

## 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.

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 their community’s energy and emissions inventory (i.e. 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 (i.e: 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>
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**Based on your local government's 2017 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 type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	
<input checked="" type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	