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# CLIMATE ACTION REVENUE INCENTIVE (CARIP) PUBLIC REPORT FOR 2018



November 29,  
2019

Local Government: Village of Silverton

The Village of Silverton has completed the 2018 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2018 and proposed for 2019 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality.

# Climate Action Revenue Incentive (CARIP) Public Report for 2018

LOCAL GOVERNMENT: VILLAGE OF SILVERTON

## 2018 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 2018
Asset Management Plan and Assessment
Community Composting Program
Asset Management Plan Phase 1
Community-Wide Actions Proposed for 2019
Assessment Management Plan Phase 2
Official Community Plan Update
Zoning Bylaw Update
Climate Adaptation Assessment
100% Renewable Kootenays initiative to transition to 100% renewable energy no later than 2050

Corporate Actions Taken in 2018
Filed Bull Trout WHA Application
Asset Management Plan Phase 1
Watershed Assessment
Aquifer Assessment Plan
Corporate Actions Proposed for 2019
Bull Trout WHA Application completion
Eliminate all heating oil dependency in corporate buildings
Climate Adaptation Partnership Project
Official Community Plan Review
Zoning Bylaw Review
Asset Management Plan Phase 2
100% Renewable Kootenays initiative to transition to 100% renewable energy no later than 2050

<b>Broad Planning</b>	
What is (are) your current GHG reduction target(s)?	10%
Are you familiar with your community’s community energy and emissions inventory (e.g. CEEI or another inventory)?	YES
What plans, policies or guidelines govern the implementation of climate mitigation in your community?	NO NO
<ul style="list-style-type: none"> <li>• Community Energy and Emissions (CEE) Plan</li> <li>• Community- Wide 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 YES
Does your local government have a corporate GHG reduction plan?	YES

## 2018 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.

<b>Community-Wide Actions Taken in 2018</b>
Upgrade to high efficiency lighting in 1 public building
Upgrade to a new heating and cooling system in Gallery building
Upgrade building performance envelope in 2 public buildings
<b>Community-Wide Actions Proposed for 2019</b>
Upgrade lighting in 3 public buildings
Upgrade building performance envelope in 2 public buildings

<b>Corporate Actions Taken in 2018</b>
Upgrade insulation in 1 public building
Installation of new heating and cooling system in 1 public building
Installation of a new fire suppression system in 1 public building

<b>Corporate Actions Proposed for 2019</b>	
Installation of level 2 electric vehicle station	
Work towards LED lighting in all buildings	
Upgrade insulation in corporate buildings	
New heating system for 1 corporate building	

<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 Code?	<b>YES</b>
Is your local government implementing the BC Energy Step Code?	<b>NO</b>

## 2018 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 2018</b>	
Replace oil heating system to mechanical heating system in 1 public building	
<b>Community-Wide Actions Proposed for 2019</b>	
Replace oil heating system to electrical heating system in 1 public building	

<b>Corporate Actions Taken in 2018</b>	
Building performance envelope improvements in 1 public building	
Assessment of water reservoir performance	
Removal of oil heating system from one corporate building	
<b>Corporate Actions Proposed for 2019</b>	
Replace oil heating system to electrical heating system in 1 public building	
Building performance envelope improvements in 1 public building	

Energy Generation	
Is your local government developing, or constructing: • A district energy system • A renewable energy system	NO NO
Is your local government operating: • A district energy system • A renewable energy system	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 BC Climate Action Toolkit?	YES
Are you familiar with the 2018 “List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments?”	YES

## 2018 GREENSPACE/NATURAL RESOURCE PROTECTION ACTIONS

### GREEN SPACE 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 2018
Tree removal and replacement program
Trail enhancement and development
Community-Wide Actions Proposed for 2019
Tree removal and replacement program
Upgrades to footbridge
Official Community Plan Review

Corporate Actions Taken in 2018
Tree removal and replacement program
Outdoor exercise equipment installation
Corporate Actions Proposed for 2019
Continued tree removal and replacement program
Park beautification and redevelopment
Placement of new outdoor exercise equipment
Official Community Plan Update

Green Space	
Does your local government have urban forest policies, plans or programs?	YES
Does your local government have policies, plans or programs to support local food production?	YES

## 2018 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.

Community-Wide Actions Taken in 2018	
Community composting program	
Waste diversion assessment	
Community-Wide Actions Proposed for 2019	
Continuing community composting program	
Waste diversion initiatives	

Corporate Actions Taken in 2018	
Waste diversion assessment	
Corporate Actions Proposed for 2019	
Waste diversion assessment	
Community electronic recycling program	
Waste diversion bylaw development	

Solid Waste	
Does your local government have construction and demolition waste reduction policies, plans or programs?	NO
Does your local government have organics reduction/diversion policies, plans or programs?	YES

## 2018 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 2018
Fleet assessment
Pavement strategy
Community-Wide Actions Proposed for 2019
Electric vehicle station
Fleet assessment
Pavement management plan

Corporate Actions Taken in 2018
Pavement rehabilitation assessment
Sidewalk replacement assessment
Corporate Actions Proposed for 2019
Sidewalk replacement program
Pavement management program

Solid Waste	
Does your local government have policies, plans or programs to support: <ul style="list-style-type: none"> <li>• Walking</li> <li>• Cycling</li> <li>• Transit Use</li> <li>• Electric Vehicle Use</li> <li>• Other (please specify)</li> </ul>	In Progress In Progress In Progress In Progress
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 integrate its transportation and land use planning?	YES

## 2018 WATER AND WASTEWATER ACTIONS

### 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 2018
Water main replacement assessment
Water reservoir assessment
Community-Wide Actions Proposed for 2019
Water reservoir upgrade
Water main replacement program

Corporate Actions Taken in 2018
Water main replacement assessment
Water reservoir upgrades assessment
Corporate Actions Proposed for 2019
Water reservoir upgrades
Water main replacement program
Water hydrant replacement program

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

## 2018 CLIMATE CHANGE ADAPTATION ACTIONS

### 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.



Please identify the THREE climate impacts that are most relevant to your Local Government.	
<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:	

In 2018 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	YES
Risk Reduction Strategies	YES
Emergency response planning	YES
Asset management	YES
Natural/Eco asset management strategies	YES
Infrastructure upgrades (e.g. storm water system upgrades)	YES
Beach Nourishment projects	
Economic diversification initiatives	YES
Strategic and financial planning	
Cross-department working groups	YES
OCP policy changes	
Changes to zoning and other bylaws and regulations	
Incentives for property owner (e.g. reducing storm water run-off)	YES
Public education and awareness	
Research	YES
Mapping	YES
Partnerships	YES

Climate Change Adaptation Actions Taken in 2018
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.
Working with stakeholders on climate adaptation planning
Working with regional district on mapping/flooding
Working with consultants on a watershed assessment
Working with consultants on wildfire mitigation plans
Climate Change Adaptation Actions Proposed for 2019
Partnering with regional district and RDI on climate adaptation plans and implementation plans
Wildfire mitigation implementation program
Fire Resiliency program

For more information please contact:

info@silverton.ca

The following are key resources that may be helpful to your local government in identifying climate impacts, as well as, strategies, actions and funding to deal with them. For those resources that you have used, please indicate whether they were useful in advancing your work in climate change adaptation?

Indicators of Climate Change for British Columbia, 2016	Haven't Used
Plan2Adapt	Haven't Used
Climate Projections for Metro Vancouver	Haven't Used
Climate Projections for the Capital Region	Haven't Used
Climate Projections for the Cowichan Valley Regional District	Haven't Used
Province of BC's BC Adapts Video Series	Haven't Used
Preparing for Climate Change: An Implementation Guide for Local Governments	Useful
The Public Infrastructure and Engineering Vulnerability Committee's (PIEVC) protocol	Haven't Used
Sea Level Rise Primer	Haven't Used
BC Regional Adaptation Collaborative Webinars	Haven't Used
<a href="http://www.ReTooling.ca">www.ReTooling.ca</a>	Haven't Used
Water Balance Model	Haven't Used
The Water Conservation Calculator	Haven't Used
Funding:	Haven't Used
National Disaster Mitigation Program (NDMP)	Useful
Community Emergency Preparedness Fund (CEPF)	Useful
Municipalities for Climate Innovation Program (MCIP)	Useful
Climate Adaptation Partner Grants (FCM)	Useful
Infrastructure Planning Grants (MAH)	Useful
Federal Gas Tax Fund	Useful

## 2018 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 2018

Community water aquifer assessment

Asset management Plan Phase 1

FireSmart Program

Community-Wide Actions Proposed for 2019	
Tree inventory and Natural Assets assessment added to GIS program for Asset Management	
Asset management Plan Phase 2	
Fire Resiliency Program	

Corporate Actions Taken in 2018	
Asset management plan Phase 1	
FireSmart Program	
Aquifer assessment	
Corporate Actions Proposed for 2019	
Tree inventory and Natural Assets assessment added to GIS program for Asset Management	
Asset management Plan Phase 2	
Fire Resiliency Program	
Other:	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC)?	YES
Have you used CLIC?	NO

## INNOVATION AND PEER LEARNING

### INNOVATION

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide GHG reduction and/or climate change adaptation activity that your local government has undertaken and that has had, or has the potential to have, a significant impact. You are welcome to repeat an action that has already been listed.

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.

Communities that have conducted innovative initiatives may want to consider raising their profile through applications to CEA's Climate and Energy Action Awards, UBCM Climate and Energy Action Award, FCM Sustainable Communities Awards or through submissions to FCM's National Measures Report.

Community-Wide Actions

**Corporate Actions**

**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.

**Mitigation**

**Programs and Funding**

Rural Development Institute  
 Federal Gas Tax Program  
 Columbia Basin Trust  
 Regional District of Central Kootenay  
 Healthy Community Society  
 Harvest Share  
 WildSafe BC  
 Lucerne Elementary Secondary School  
 Village of New Denver  
 Village of Slocan

**Adaptation**

**Programs and Funding**

UBCM Strategic Wildfire Protection Program  
 Slocan Integral Forestry Cooperative (SIFCO)

**2018 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 2018?	<b>YES</b>
If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from services delivered directly by your local government:	<b>21.7</b>
If your local government measured 2018 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from contracted services:	<b>0</b>
<b>TOTAL A: CORPORATE GHG EMISSIONS FOR 2018</b>	<b>21.7 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 2018 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 2018 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e)) being claimed from Option 1 GHG Reduction Projects:**

<b>OPTION 1 PROJECTS</b>	<b>REDUCTIONS</b>
Energy Efficient Retrofits	
Solar Thermal	
Household Organic Waste Composting	
Low Emission Vehicles	

Avoided Forest Conversion	
<b>TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2018</b>	<b>tCO<sub>2</sub>e</b>

If applicable, please report the names and 2018 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
Energy Efficient Retrofits	
Solar Thermal	
<b>TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2018</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 (tCO<sub>2</sub>e)) from an offset provider for the 2018 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 2018</b>	<b>tCO<sub>2</sub>e</b>

**TOTAL REDUCTIONS AND OFFSETS FOR 2018 (Total B+C+D) = 0 tCO<sub>2</sub>e**

**CORPORATE GHG EMISSIONS BALANCE FOR 2018**

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 2018 = (A – (B+C+D)) = 21.7 tCO<sub>2</sub>e**

**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, 2018 100 tCO<sub>2</sub>e).**

SOURCE OF CARRY OVER EMISSION REDUCTIONS (and year earned)	REDUCTIONS
<b>BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR</b>	<b>tCO<sub>2</sub>e</b>

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

**Based on your local government's 2018 CARIP Climate Action/Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies:**

	Level 1 – Demonstrating Progress on Charter Commitments	
	Level 2 – Measuring GHG Emissions	
	Level 3 – Accelerating Progress on Charter Commitments	√
	Level 4 - Achievement of Carbon Neutrality	
	Not Sure	