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 FluidSurveysTM, 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 <u>Ministry of Community Sport and Cultural</u> <u>Development's website</u>.

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: Regional District of Central Kootenay

Report Submitted by: Name: Sangita Sudan

Role: General Manager of Development Services

Email: ssudan@rdck.bc.ca Phone: 250-352-8157

Date: June 1, 2017

Optional box for image

The Regional District of Central Kootenay 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.

Cor	Community-Wide Actions Taken in 2016		
	Regional Strategic Community Energy Emissions Plan (SCEEP) - Development		
	Regional Agriculture Land Use Inventory & Water Demand Model		
	Regional Agricultural Liaison Service (RALS) – creation of Agriculture extension services in		
	partnership with RDCK, RDEK, RDKB, and CBT.		
	Columbia Basin: Electric Vehicle Strategy (Accelerate Kootenay) development		
	Official Community Plan Area 'G' and Area 'I' initiated		
	Developing pilot project with Fortis for Senior Energy Specialist		
Cor	mmunity-Wide Actions Proposed for 2017		
	Implementation of pilot project with Fortis for Senior Energy Specialist		
	Agriculture Land Use Inventory complete; initiated Agriculture Water Demand Model		
	Regional Agricultural Liaison Service (RALS) – extension services commenced		
	Resource Recovery Plan Update to include organics diversion and 'zero waste' strategies		
	Official Community Plan Area 'G' adoption		
	Official Community Plan Area 'I' ongoing		
	Official Community Plan Area 'J' initiate		

Cor	Corporate Actions Taken in 2016		
	Developed Strategic Community Energy and Emissions Plan		
	Commenced implementation of Strategic Community Energy and Emissions Plan through EV		
	strategy and Fortis Senior Energy Specialist		
Cor	Corporate Actions Proposed for 2017		
	Resource Recovery Plan include implementation of Corporate upgrades to landfill and transfer		
	facilities		
	Commenced implementation of Strategic Community Energy and Emissions Plan - Fortis Senior		
	Energy Specialist		

Broad Planning		
What is (are) your current GHG (Please provide details here)		
reduction target(s)?	Working Towards Carbon Neutrality	
Has your local government used to measure progress?	the Community Energy and Emissions Inventory (CEEI) to	Yes
What plans, policies or guidelines	govern the implementation of climate mitigation in your	
community?		
• Commu	nity Energy and Emissions (CEE) Plan	Yes
• Climate	Action Plan	Yes
 Integrate 	ed Community Sustainability Plan	Yes
Official (Community Plan (OCP)	Yes
 Regional 	Growth Strategy (RGS)	No
• Do not h	ave a plan	No
Other: F	ortis Strategic Energy and Emissions Plan	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.

Coı	Community-Wide Actions Taken in 2016	
	Tarrys Hall Energy Efficiency Upgrades	
	Ymir Community Hall Addition and Energy Efficiency upgrades	
	Nakusp Arena Repairs	
Coı	Community-Wide Actions Proposed for 2017	

Cor	Corporate Actions Taken in 2016		
	Crescent Valley Beach Regional Park – parking lot LED lighting		
	Nelson District Community Centre upgrades completed and Energy Efficiency upgrades		
	Northshore Hall upgrades completed		
Cor	Corporate Actions Proposed for 2017		
	Castlegar and District Community Centre building upgrades and energy efficiency upgrades		

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.

Со	Community-Wide Actions Taken in 2016		
Со	mmunity-Wide Actions Proposed for 2017		
	SCEEP implementation – Regional Residential Energy Retrofit Program pending funding		
	SCEEP Implementation – Fortis Senior Energy Specialist tasks to review corporate buildings and GHG emissions reduction plan, policy development, community demand side management, transportation (natural gas & electric), Renewable Natural Gas.		

Со	Corporate Actions Taken in 2016		
Со	rporate Actions Proposed for 2017		
	SCEEP Implementation – Senior Energy Specialist Contracted Service SCEEP Implementation – Fortis Senior Energy Specialist tasks to review corporate buildings and GHG emissions reduction plan, policy development, community demand side management, transportation (natural gas & electric), Renewable Natural Gas.		

Energy Generation		
Is your local go	vernment developing, or constructing:	
•	A district energy system	Yes
•	A renewable energy system	Yes
Is your local go	vernment operating:	
•	A district energy system	No
•	A renewable energy system	No
Is your local go energy provide	vernment connected to a district energy system that is operated by another r?	No
Are you aware Toolkit?	of the Integrated Resource Recovery guidance page on the <u>BC Climate Action</u>	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.

Cor	Community-Wide Actions Taken in 2016		
	Char Creek Trail upgrades in Creston – RDCK funded		
	Nelson Cycling Club trail network upgrades – RDCK funded		
	Merry Creek trail upgrades in Castlegar – RDCK funded		
	South Slocan Greenway Project		
	Development Permit Areas for Riparian restoration in all OCPs		
	Red Wassick Memorial Fishing Platform		
	Implementation of Park Plans for Crescent Valley Beach, Pass Creek, Waterloo Eddy		
	Nelson to Salmo Great Northern Rail Trail surfacing 4 km		
Cor	Community-Wide Actions Proposed for 2017		
	South Slocan Greenway Project		
	Morning Mountain Regional Park improvement project and Trail expansion		
	Morning Mountain to Nelson Trans Canada Trail completion 12km		
	Kootenay Lake Partnership – Implementation of Shoreline Management Guidelines and public		
	outreach		

Cor	Corporate Actions Taken in 2016		
	Crescent Valley Beach Regional Park		
	Sunshine Bay Regional Park		
	South Slocan Greenway Project		
	Kootenay Lake Partnership – Development of Shoreline Management Guidelines		
	Morning Mountain		
Cor	Corporate Actions Proposed for 2017		
	Continue Crescent Valley Beach Regional Park development		
	Morning Mountain upgrades for Skating rink and biking trails		
	Salmo Landfill – Closure and Capping of HB dam site		
	Lakeside Drive, Nelson remediation of former transfer station into greenspace		
	Kootenay Lake Partnership – implementation of Shoreline Management Guidelines & public		
	outreach		
	Regional District Parks and Trails Inventory Project leading to overall strategic plan		

Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes

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.

Coi	Community-Wide Actions Taken in 2016		
	Ongoing Recycling Educator Program – Beyond Recycling for grades 4 - 5		
	Waste Educator Program – screen waste and inform public at transfer stations and landfills		
	Trash to Treasures program		
	Household Hazardous Waste program		
	Zero waste program – public education		
	Mobile Fruit Press – Waste diversion project by Fields Forward		
	Developed the Central Kootenay Food Policy Council now a Society		
Coi	mmunity-Wide Actions Proposed for 2017		
	Ongoing Recycling Educator Program – Beyond Recycling for grades 4 - 5		
	Waste Educator Program – screen waste and inform public at transfer stations and landfills		
	Trash to Treasures program		
	Household Hazardous Waste program		
	Zero waste program – public education		
	Central Kootenay Food Policy Council Society developing work plan includes organics diversion		

Co	Corporate Actions Taken in 2016	
Co	rporate Actions Proposed for 2017	
	Resource Recovery Plan Update initiation	
	Organic Diversion will be addressed in the Resource Recovery Plan	

Solid Waste	
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?	No

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.

Cor	Community -Wide Actions Taken in 2016	
	South Slocan Greenway Project	
	Galena Trail Improvements	
	Transit Bus Shelters	
	Transit passenger lights illuminating passengers with solar power	
	Accelerate Kootenay EV strategy development	
Cor	mmunity-Wide Actions Proposed for 2017	
	Accelerate Kootenays Electric Vehicle Strategy implementation	
	Implement Conversion of Waste Hauling Vehicles to Natural Gas: Partnership with FortisBC	
	Transit sign markers	
	Transit service expansion	

Coı	Corporate Actions Taken in 2016		
Coı	Corporate Actions Proposed for 2017		
	Inventory of Parks and Trails Assets		
	Various trail improvements on Great Northern, Morning Mountain, Transcanada		

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.	No
to reduce single-vehicle occupancy trips, increase travel options, provide incentives to	
encourage individuals to modify travel behavior)?	
Does your local government have policies, plans or programs to support local food	Yes
production (thus reducing transportation emissions)?	

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.

Cor	Community-Wide Actions Taken in 2016		
	Water Ambassador Program – Central water systems and Erickson water system		
	Lucas Road water metering program		
Cor	Community-Wide Actions Proposed for 2017		
	Water Ambassador Program – Central water systems and Erickson water system		
	Lucas Road water metering program		
	Grandview Properties and Roseberry water metering program		
	Balfour water system water metering program (pending funding)		

Corporate Actions Taken in 2016			
	Arrow Creek/Erickson water system transmission line replacement Phase 4		
	Operations and maintenance program for 19 RDCK water systems		
Cor	porate Actions Proposed for 2017		
	Arrow Creek/Erickson water system transmission line replacement Phase 5		
	Arrow Creek/Erickson water system reservoir replacement		
	Ymir water system reservoir replacement		
	Balfour water system treatment plant and distribution system improvements (pending funding)		
	Fauquier water system control system upgrade		
	Operations and maintenance program for 19 RDCK water systems		
	Agriculture water demand model		
Water Conservation			
Do	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.

Clir	Climate Change Adaptation Actions Taken in 2016	
	Wildfire Mitigation Program – Prescribed Fire Breaks	
	WaterSmart Ambassador Program – Central water systems and Erickson water system	
Clir	nate Change Adaptation Actions Proposed for 2017	
	FireSmart Ambassador Program implementation	
	Wildfire Mitigation Program – Prescribed Fire Breaks	
	WaterSmart Ambassador Program – Central water systems and Erickson water system	
	Senior Energy Specialist implementation – funded by FortisBC	
	Accelerate Kootenays Electric Vehicle Strategy for Columbia Basin	

Res	Resources you have used to support climate change adaptation (e.g. Plan2Adapt, Preparing for	
Clin	Climate Change: Implementation Guide)	
	Columbia Basin Trust: Adapting to Climate Change workshop	
	Regional Strategic Community Energy and Emissions Plan	
	Carbon Neutral Kootenays program	

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)	Yes
Cross-department working groups	Yes
Emergency response planning	Yes
Land-use policy changes (eg. OCP, DPA)	Yes
Economic diversification initiatives	Yes
Ecosystem-based approaches (incl. shorelines)	Yes
Incentives (e.g. property owner reducing stormwater run-off)	No
Public education and awareness	Yes
Research (e.g.mapping, participation in studies)	Yes
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.

Coi	Community-Wide Actions Taken in 2016	
Coi	mmunity-Wide Actions Proposed for 2017	
	Pilot initiative for Wildfire Mitigation Program Implementation	
	Pilot initiative for Senior Energy Advisor	

Co	Corporate Actions Taken in 2016		
	Creston Landfill Greenhouse Gas Flare		
Co	Corporate Actions Proposed for 2017		
	Creston Landfill Greenhouse Gas Flare		
	Feasibility for Landfill Greenhouse Gas Flare in Ootischenia		
	Feasibility for Landfill Gas Capture in Ootischenia and Creston		

Yes
Yes

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

Accelerate Kootenays Columbia Basin-wide initiative, installation of electric vehicle charging stations from Rock Creek to Golden and Cranbrook. Collaboration with energy companies, municipalities/RDs, CBT and MEM.

Pilot project to review and update corporate buildings and GHG Emissions Reduction Plans; identify gaps through a fully funded Senior Energy Specialist position funded by FortisBC.

Wildfire Mitigation Strategy – pilot demonstration project for province enabling landscape level wildfire mitigation; working collaboratively with local forest industry to reduce costs for RDCK from \$10,000/ha to \$3000/ha; increasing grants from 2015 from \$60,000 to 1.5 million in 2017; working with CBT, Forest Enhancement Society of BC that will potentially increase budget to \$250,000,000.00; developing a wildfire behavior model to define key risk areas and location of fire guards.

Corporate Innovative Action

Pilot project to review and update corporate buildings and GHG Emissions Reduction Plans; identify gaps through a fully funded Senior Energy Specialist position funded by FortisBC.

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

Union of BC Municipalities

Columbia Basin Trust

FortisBC

Water and Wastewater Funding – federal program

Ministry of Energy and Mines

Ministry of Community, Sport and Development ??

Ministry of Environment

Investment Agriculture Foundation

Ministry of Agriculture

Partnership of Water Sustainability BC

POLIS

Forest Enhancement Society of BC

RDCK Kootenay Lake Local Conservation Fund

Kootenay Conservation Program

Ministry of Forests, Lands, Natural Resource Operations

Ktunaxa Nation and Yaqan Nukiy

Okanagan Nation Alliance

RDCK member municipalities

Wildsight

Central Kootenay Invasive Species Society

Vancouver Foundation

BC Real Estate Foundation

Osprey Foundation

Kootenay Lake Partnership – regional staff collaboration with province and First Nations BC Transit

Local Community Forests and Forest Licensees

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	1609
the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent)	
from services delivered directly by your local government:	
If your local government measured 2016 corporate GHG emissions, please report	159
the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent)	
from <u>contracted</u> services:	
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	1768 tCO2e

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 (tCO2e)) 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	
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016	tCO2e

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
Sperling Hansen Associates – Creston Landfill 2016 GHG Reduction Quantification	1628 tCO2-e
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2016	1628 tCO2-e

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

TOTAL D: OFFSETS PURCHASED FOR 2016	tCO2e

TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 1628 tCO2e

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)) = 140 tCO2e

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:

PROJECT NAME:

Land fill gas flare in Creston and possibly Ooteschnia; Created CARIP reserve fund; Established pilot project in partnership with FortisBC for Senior Energy Specialist position; Initiated pilot project for wildfire mitigation through an extensive collaborative network; Accelerate Kootenay EV Strategy also a provincial pilot to provide charging facilities in Columbia Basin that will enable travel with EV from Vancouver to Alberta.

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:

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