

Climate Action Revenue Incentive (CARIP) Public Report for 2017

Local Government:
Thompson—Nicola Regional District



The Region of BC's Best

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Date: May 25, 2018

The Thompson-Nicola 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.

Community-Wide Actions Taken in 2017	
	Complete review and update of the TNRD Regional Solid Waste Management Plan (RSWMP). Solid waste management plan updates are required every 10 years. The plan purpose is to set new solid waste reduction targets, and plan how they are to be achieved.
	Continued to collect data for the 2017 Regional Growth Strategy Monitoring Indicators Report
	Continued development of the North Thompson OCP, to include addressing challenges associated with decreased population and efficient delivery of services.
Community-Wide Actions Proposed for 2018	

Corporate Actions Taken in 2017	
	Continued development/refinement of asset management strategies
	Procured asset management software tools
	Expanded development of asset management strategies to all TNRD owned assets
	Development of Utility Systems Master Plan
Corporate Actions Proposed for 2018	
	Establish asset management strategies through all TNRD departments.

Broad Planning	
What is (are) your current GHG reduction target(s)?	<p>(Please provide details here)</p> <p>The TNRD Regional Growth Strategy calls for a reduction of 10% in comparison to 2007 levels by 2020; and a reduction of 33% in comparison to 2007 levels by 2050.</p> <p>For the areas covered by the Green Lake OCP, projected is a reduction of 33% in comparison to 2007 levels by 2012; and a reduction of 80% in comparison to 2007 levels by 2050.</p>
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?	
<ul style="list-style-type: none"> • Community Energy and Emissions (CEE) Plan • Community- Wide Climate Action Plan • Integrated Community Sustainability Plan • Official Community Plan (OCP) • Regional Growth Strategy (RGS) • Do not have a plan • Other: 	<p>No</p> <p>No</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p>
Does your local government have a corporate GHG reduction plan?	No

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	
	Provided funding to 4 not-for-profit non-governmental organizations for green capital projects
	Provided funding to 1 member municipality to fund green capital project
Community-Wide Actions Proposed for 2018	
	Continue to explore partnerships to implement green initiatives with non-governmental organizations and member municipalities
	Prepare information circular for building permit applications re achieving energy efficacy in new construction and renovation projects
	Research and possible implementation of regional energy efficiency requirements beyond those identified in the BC Building Code

Corporate Actions Taken in 2017	
	Funding approved for energy efficient lighting upgrade at Vavenby Fire Hall
	Funding approved for energy efficient lighting and insulation upgrade at Blackpool Fire Hall. Also included funding for water closet upgrade with low flow fixtures.
	Continued efforts to move to virtual servers. Any new replacement servers are more energy efficient
	All new computers replacements are more energy efficient than replaced units
Corporate Actions Proposed for 2018	
	Complete energy efficient upgrades at Vavenby and Blackpool fire halls
	Moving towards video conferencing for staff meetings and live streaming of community engagements
	Upgrade virtual management system to allow for more virtual servers

Building and Lighting	
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.

Community-Wide Actions Taken in 2017	
	N/A

Community-Wide Actions Proposed for 2018	
	N/A

Corporate Actions Taken in 2017	
	N/A

Corporate Actions Proposed for 2018	
	Pursue funding for solar panel installation at TNRD Civic Building

Energy Generation	
Is your local government developing, or constructing:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	No No
Is your local government operating:	
<ul style="list-style-type: none"> • 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 2017 " List of Funding Opportunities for Clean Energy Projects Led by First Nations and Local Governments? "	Yes

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.

Community-Wide Actions Taken in 2017	
	N/A
Community-Wide Actions Proposed for 2018	
	N/A

Corporate Actions Taken in 2017	
	N/A
Corporate Actions Proposed for 2018	
	N/A

Greenspace	
Does your local government have urban forest policies, plans or programs?	No
Does your local government have policies, plans or programs to support local food production?	No

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.

Community-Wide Actions Taken in 2017	
	Continuation of region wide waste reduction education programs which included 23 community events and presentations to schools and community groups. A total of \$44,000 was spent on various media advertisements and development of education/promotion materials targeting waste reduction.
	Sold 189 backyard composters and food digesters (green cones) in our continued effort to encourage source reduction of organic waste, these units are sold at a subsidized rate to residents and in select cases donated to community groups and schools for demonstration purposes.
	Household Hazardous Waste Round-up events were held in Kamloops, Merritt and Cache Creek. This initiative keeps harmful chemicals out of landfills.
	Continued to partner with provincial stewardship agencies to provide a one-stop-shop for disposal of garbage and recyclables at TNRD run transfer stations. Furthermore, after ongoing lobby efforts in late 2017, the TNRD received a formal offer to participate in the Recycle BC EPR program for residential packaging and print paper; program to be fully implemented by end of 2018.
	Supported community clean-up initiatives and coordinated clean-up of problematic illegal dump sites. A total of \$27,000 was spent on community and illegal dumping clean-ups.
Community-Wide Actions Proposed for 2018	
	Implement Recycle BC depots at all TNRD run facilities, this will include a region wide communication plan regarding the changes to the existing recycling system.
	Begin implementation of waste diversion initiatives from the TNRD's new RSWMP including: increased education and, partner with City of Kamloops to establish a permanent year round household hazardous waste depot.
	Continue to pursue diversion opportunities for construction/demolitions waste.

Corporate Actions Taken in 2017	
	Continuation of GHG reduction projects (methane oxidation) at TNRD operating landfills and select closed landfills. Methane is anaerobically converted to CO ₂ , thus reducing GWP by 21 times. In 2017 this resulting in an estimated reduction in 2017 of 722 tonnes of CO ₂ equivalent.

Corporate Actions Proposed for 2018	
	Obtain Board approval of revised RSWMP and then submit to Minister of Environment
	As recommended in the RSWMP, proceed with conversion of Heffley Creek landfill to a construction/demolition landfill only, and divert household garbage to Kamloops Mission Flats or Cache Creek landfills.
	Continue methane oxidation at both operating and closed TNRD landfills.
	Begin work on policy recommendations included in the RSWMP, such as disposal bans on recyclables in waste stream from Industrial/Commercial/Institutional (ICI) sources

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?	Yes

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.

Community -Wide Actions Taken in 2017	
	Expanded bookmobile services to outlying communities, thus reducing personal vehicle visits to regional libraries
	E-book and e-audiobook circulations of 134,813. Includes licensing as a Centre for Equitable Library Access. No library visits required for this service.
Community-Wide Actions Proposed for 2018	
	Budget in place to undertake a pilot project at the Resort Municipality of Sun Peaks transfer station, involving installation of compactor garbage bins. Anticipated to reduce number of hauls by 2/3

Corporate Actions Taken in 2017	
	25 employees took part in bike to work week. Cycled 494.51 km

Corporate Actions Proposed for 2018	
	Commissioning of new, more fuel efficient bookmobile

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	No
• Cycling	No
• Transit Use	Yes
• Electric Vehicle Use	No
• Other (please specify)	No
Does your local government have a transportation demand management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)?	No
Does your local government integrate its transportation and land use planning? The TNRD integrates transportation and land use planning as it applies to its jurisdiction. All roadways in unincorporated areas fall under Provincial jurisdiction	Yes

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	
	Continued conservation and education programs
	2nd year of enhanced water conservation bylaw enforcement, which has reduced peak day demand and overall water consumption
	Secured funding for Lower Nicola Waterworks District water metering study
Community-Wide Actions Proposed for 2018	
	Initiate \$3.7 million regional water metering program for all 11 water utilities

Corporate Actions Taken in 2017	
	Installation of an equalization basin at the Clearwater Septage Receiving Station (SRS). Basin will regulate septage release volumes to improve water treatment operations and ensure operation compliance.
	Upgrades to Clearwater SRS to provide year round service
	Installed backup generator for Pritchard Sewer System to ensure continued operation in event of power outages. Pritchard is in the vicinity of an ecologically sensitive area.
Corporate Actions Proposed for 2018	
	Complete Water Utility Master Plans for all 11 water and 2 wastewater system
	Update Water Conservation Plan

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.

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

In 2017 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	No
Asset management	Yes
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	No
Incentives for property owner (e.g. reducing storm water run-off)	Yes
Public education and awareness	Yes
Research	Yes
Mapping	Yes
Partnerships	Yes
Other:	

Climate Change Adaptation Actions Taken in 2017	
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.	
	Promotion of rain barrel program to preserve rain water. Anticipated to reduce water consumption and have a reserve in place for dry spells.
	Risk and criticality assessment completed for water and wastewater systems
	Provided funding for, and partnered with Fraser Basin Council and other stakeholders to study Nicola Lake watershed.
Climate Change Adaptation Actions Proposed for 2018	
For more information please contact:	

Corporate Actions Taken in 2017	
	n/a
Corporate Actions Proposed for 2017	
	n/a

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	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 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 Action
For more information contact:

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:	515
If your local government measured 2017 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	613
TOTAL A: CORPORATE GHG EMISSIONS FOR 2017	1,128 tCO₂e

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 (tCO₂e)) being claimed from Option 1 GHG Reduction Projects:

OPTION 1 PROJECTS	REDUCTIONS
Energy Efficient Retrofits	nil
Solar Thermal	nil
Household Organic Waste Composting	nil
Low Emission Vehicles	nil
Avoided Forest Conversion	nil
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2017	nil tCO₂e

If applicable, please report the names and 2017 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO2e)) being claimed from Option 2 GHG Reduction Projects:

OPTION 2 PROJECT NAME	REDUCTIONS
Methane Oxidation Beds/Methane Oxidation Landfill Cover (includes 681.55 carry forward from 2016)	1403.55
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2017	1403.55 tCO2e

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
	nil
TOTAL D: OFFSETS PURCHASED FOR 2017	Nil tCO2e

TOTAL REDUCTIONS AND OFFSETS FOR 2017 (Total B+C+D) = 1403.55 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)) = - 275.90tCO₂e

**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
Methane Oxidation Beds/Methane Oxidation Landfill Cover 2017	275.90
BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR	275.90 tCO₂e

Carbon Neutral Reporting	
Does your local government have a climate reserve fund or something similar?	No

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:

PROJECT NAME:

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	Y
<input type="checkbox"/>	Not Sure	