

Climate Action Revenue Incentive (CARIP) Public Report for 2017

Local Government: Township of Langley

Report Submitted by: Township of Langley
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Date: May 29, 2018



The Township of Langley 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	
	The Smith Neighbourhood Plan (in Willoughby) includes Development Permit Areas for energy conservation and GHG emission reduction, and effectively expand the DP Area that has been established in other parts of the Willoughby community.
	The new Brookwood-Fernridge Community Plan (BFCP) replaced the old plan adopted in 1987. The new BFCP incorporates Smart Growth principles and Development Permit guidelines for energy conservation and GHG emission reduction into the plan policies.
Community-Wide Actions Proposed for 2018	
	The Social Sustainability Strategy process will involve community-wide engagement, including a panel discussion, pop-up engagement events, innovation labs and kitchen table discussions. Some of these discussions will touch on topics related to transportation such as the availability and convenience of public transit, access to bike paths, walkways, and other transportation alternatives, the cost of getting around, and the amount of time getting around.

Corporate Actions Taken in 2017	
	The Township of Langley created a new position for a Strategic/Social Planner. The position provided resources for the Township to start to explore the "interplay" or overlapping areas of sustainability, where environmental concerns are considered and integrated with social and economic issues. Some of the key roles of this position included assistance to the Seniors Advisory Committee, preparation of a Social Sustainability Strategy, and co-ordination to implement the Step Code.
	The Strategic Energy Management Plan was approved by Council and endorsed by Senior Management Team with deliverables and targets for all departments
Corporate Actions Proposed for 2018	
	The Township of Langley has embarked on a process to develop a Social Sustainability Strategy. The Social Sustainability Strategy will integrate social issues with environmental and economic considerations, consistent with the policy directions in the Township of Langley Sustainability Charter and the Official Community Plan.
	Check progress of SEMP initiatives in reducing energy and emissions. Continue to implement remaining actions and develop or adjust next steps based on progress reports.

Broad Planning	
What is (are) your current GHG reduction target(s)?	Reduce GHG emissions on a per capita basis by 10% from 2007 by 2021

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?	
• Community Energy and Emissions (CEE) Plan	Yes
• Community- Wide Climate Action Plan	Yes
• Integrated Community Sustainability Plan	Yes
• Official Community Plan (OCP)	Yes
• Regional Growth Strategy (RGS)	Yes
• Do not have a plan	No
• Other:	No
Does your local government have a corporate GHG reduction plan?	Yes

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	
	Begin construction on a Interpretive Centre Building for the demonstration of sustainable systems, technologies and strategies in association with the use of wood and wood products at the Derek Doubleday Arboretum
	Build off the success of the first workshop to deliver a second builder workshop on the Energy Star for New Homes building standard.
	Look for industry stakeholders to complete an Energy Star for New Homes demonstration project by partnering with a home builder in the community. Opportunities throughout the construction process of the home will be capitalized for training and educational experiences for local building professionals and other relevant stakeholders to promote the benefits of energy efficient homes, build internal and local capacity, and increase the visibility and profile of the Energy Star home label.
	Complete a full replacement of the two pool air handling units at WC Blair Recreation Centre. The new units are equipped with a heat recovery system and condensing gas burner.
	Completed various lighting upgrades such as exterior lighting upgrades at LEC and various Fire Halls, underwater lighting, deck lighting, change room lighting and lobby lighting upgrades at WC Blair, as well as other minor lighting upgrade at different facilities in the Township.
Community-Wide Actions Proposed for 2018	
	Implementation of the heat reclaim project at George Preston Recreation Centre main ice plant which allows recovery of the excess heat and utilizing it to heat domestic hot water.
	Hire a Building Energy Specialist to lead the design and implementation of standardized tools and processes to enhance compliance with energy provisions of the BCBC and Township policy aimed at

	improving building energy performance within the new construction and existing building sectors.
	Implement a variety of measures for the Township's new Aldergrove Credit Union Community Centre (opening summer 2018), including: <ul style="list-style-type: none"> • Solar collectors used to pre-heat domestic hot water • The Defender® Regenerative Media Filter provides energy savings compared to traditional sand filtration • LED Lighting through the facility and water park • Occupancy sensors for lighting
	Interpretive Centre at Derek Double Day Arboretum to open 2018.
	Acquire 2 Sustainability Scholars in partnership with UBC and BC Hydro to develop a business case for Council for a community wide LED streetlight conversion and the development of a Corporate Building Policy aligning with the new BC Energy Step Code
	Adopt an approach to the BC Energy Step Code for new residential Part 9 and Part 3 buildings that stays ahead of the BCBC.

Corporate Actions Taken in 2017	
	Participated in Earth Hour by turning off lights at select facilities.
	Continue to implement energy efficiency projects in corporate facilities as identified by building energy auditing project.
	Conducting Energy Audits at eight park locations to determine a potential list of energy efficiency measures/projects.
	Joined BC Hydro's Energy Wise Network to encourage energy conservation throughout the workplace.
	Formalized CCAP (Corporate Climate Action Program) and obtained Council adoption for the new program that will act as a funding mechanism for corporate facility projects that have energy savings potential.
Corporate Actions Proposed for 2018	
	Participated in Earth Hour by turning off lights at selective facilities.
	Conducted a Staff Thermal Comfort Survey at the Civic Facility to address HVAC issues and increase energy efficiency at the facility
	Conducted Operator Training on Energy Efficiency and pool/arena operations, will continue this education training with more in depth sessions that focus on energy efficiency commissioning practices and technologies

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 Code?	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	
	Continued maintenance and operation of the Jackman Landfill biogas optimization project. The project is used to provide renewable energy to a nearby community greenhouse as opposed to the utilization of natural gas
Community-Wide Actions Proposed for 2018	
	Will continue to maintain and operate the Jackman Landfill biogas optimization project. The project is used to provide renewable energy to a nearby community greenhouse as opposed to the utilization of natural gas. The site is also undergoing construction to be utilized as a new disc golf course for the community.

Corporate Actions Taken in 2017	
	Completed a full replacement of the two pool air handling units at WC Blair Recreation Centre. The new units will be equipped with a heat recovery system and hydronic heating coils instead of a gas burner.
Corporate Actions Proposed for 2018	
	New Aldergrove Credit Union Community Centre will have a heat recovery system for the arena ice plant.
	Look at expanding Solar Panel infrastructure at main City Hall to provide more pre-heating to domestic hot water and reduce reliance on natural gas

Energy Generation	
Is your local government developing, or constructing:	
• A district energy system	No
• A renewable energy system	No
Is your local government operating:	
• A district energy system	No
• A renewable energy system	Yes
Is your local government connected to a district energy system that is operated by another energy provider?	No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action	Yes

Toolkit?	
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	
	Continued implementation of numerous neighbourhood plans regarding street side greenways, ecological greenways, visual green streets, street side watercourse mitigation areas, pocket parks, urban greens, greenlinks, streamside setback trails and open space, retention of existing trees, requirements for private amenity space, etc.
	Continued development of Yorkson Community Park, a 52 acre site that includes streamside protection and riparian compensation areas.
	Identified 84 additional acres of park and open space to be provided as part of the Brookwood Fernridge Community Plan.
	Parks department attended various community events such as Arbor Day 2017, Municipal Awareness Day 2017, and Rivers Day 2017 to increase public awareness of natural resource protection.
	Trail Advisory Group established to provide input to trail routing, encouragement of active recreation.
	New interpretive signage panels were installed at William's park describing the site history, hydrology and salmon cycles.
Community-Wide Actions Proposed for 2018	
	Parks department will host/attend various community events such as Arbor Day, Municipal Awareness Day, and BC Rivers Day to increase public awareness of natural resource protection.
	Yorkson Community Park construction continuous into phase 4.
	Annual Tree planting program was implemented and 222 new trees are to be planted across 3 Township Park spaces.
	Undertaking environmental inventory to assist planning for new forested park site at Milaster Property.
	Coordinating with Metro Vancouver to assist in their development of a long term, land acquisition strategy to identify and target properties with high ecological value for protection.
	Series of interpretive panels are to be installed along Yorkson creek. Panels include information and artwork created by students at an adjacent elementary school. topics include local flora, fauna, and First Nation's influence.

Corporate Actions Taken in 2017	
	Asset Management team reviewed a feasibility study for a green roof on a corporate facility; the study deemed a green roof to be financially excessive.
Corporate Actions Proposed for 2018	
	Adding staff - Trades 1 - Urban Forestry, Trails and Natural Areas Maintenance Worker
	Landscape improvements at the Civic Facility and Langley Events Centre
	Purchased 52 acre wetland property for addition to Parks inventory in Nathan Creek watershed.

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?	Yes

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	
	Offered expanded service for municipal residential garbage and organics collection.
	Finalized a five year Public Spaces Waste Management Program for garbage, pet waste, organics, and recycling collection in parks and street side.
	Hosted the 5 th annual Upcycling Design Challenge to encourage residents to reduce and reuse their waste through art.
	Hosted the 6 th annual Clean Up Langley Day to remove litter from waterways and natural spaces in the community.
	Sponsored Zero Waste Planet Protector Academy workshops for 8 schools.
	Delivered over 100 zero waste workshops to elementary school classrooms
	Hosted and attended community events to educate on reducing, reusing, and recycling waste and preventing litter and illegal dumping.
	Hosted an annual Hazardous Waste Drop-off Event over 2 days in October with the addition of tire recycling.
	Attended sporting events at the Langley Events Centre as an educational Green Team to support accurate sorting in the facility's waste management program.
Community-Wide Actions Proposed for 2018	
	Introduce organics collection into select multi-family buildings.
	Implement phase 1 of a 5 year Public Spaces Waste Management Program including new park and streetscape waste receptacles with recycling, compost, and pet waste options. Initiate a new waste management levy on dog licenses and park facility rentals to help offset the cost of the program.
	Host the 6 th annual Upcycling Design Challenge.
	Host the 7 th annual Clean Up Langley Day.

	Sponsored Zero Waste Planet Protector Academy workshops for 8 schools.
	Deliver over 100 zero waste workshops to elementary school classrooms
	Attend numerous community events.
	Host a Hazardous Waste Drop-off event.
	Expand the Green Team support for the Langley Events Centre.
	Join the provincial recycling program, Recycle BC, and increase the types of printed paper and packaging accepted in municipal recycling.
	The new Aldergrove Credit Union Community Centre will have efficient Dyson hand dryers instead of paper towels to reduce waste.

Corporate Actions Taken in 2017	
	Improved access to corporate recycling program and addressed contamination issues by installing upgraded signage. Provided information sessions for relevant staff to educate on the changes.
	Added corporate collection stream to recycle tires.
	Developed waste reduction guidelines and food vendor packaging requirements (recyclable or compostable) for Township-led events.
Corporate Actions Proposed for 2018	
	Run information sessions on corporate recycling program to educate new staff and remind existing staff of sorting requirements to reduce contamination.
	Install full recycling program at new facility and water park in Aldergrove, including recycling programs for compost, soft plastics, electronics, metals, Styrofoam, batteries and more. Work with food vendors to ensure over 90% of food packaging is either compostable or recyclable.
	Replace existing exterior garbage bins at all facilities with new multi-stream bins (recycling, compost, garbage)
	Implement requirements for contractors conducting demolitions for corporate projects to submit waste management plans in advance of the project, and to report on recycling tonnage and drop-off locations.

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	
	Support HUB Cycling Program by delivering workshops to four Langley Schools. Workshop discusses cycling education and promotion and specific cycling routes.
	Sidewalk improvements in Aldergrove near the new recreation facility.
	Implementation of a new Translink community shuttle route in Willoughby.
	Completion of various cycling projects as per the 5 year Cycling Master Plan.
Community-Wide Actions Proposed for 2018	
	Sidewalk improvements on 92A Ave in Walnut Grove and 202 Street in Willowbrook.
	Work with TransLink on the implementation of a new B-Line on Fraser Highway for 2019.
	Construction of the North Langley connector, the final cycling project in the 5 year cycling plan.
	Partner with HASTe and Translink to provide school travel planning to 1 school to reduce car travel and promote active transportation.
	Partner with LifeCycle to deliver cycling trips with high school students to local points of interest (sustainability-focused).
	Install 4 EV charging stations at the new Aldergrove Credit Union Community Centre with room for expansion
	Installed a new dual head level II EV charging station at the WGCC and an additional single head level II EV charging station at the Civic Facility
	Work with Waste and Recycling Hauler to pilot EV medium/heavy duty vehicles in fleet to reduce community GHGs related to transportation emissions.
	Bring forward EV Strategy to Council, including draft bylaw language outlining new residential EV charging requirements

Corporate Actions Taken in 2017	
	Undertook a study to look at corporate EV station expansion. The study looked at expanding EV charging infrastructure for Township Fleet as well as public usage at corporate facilities like recreation centres.
	Implemented Township Electric Vehicle Supply Equipment preventative maintenance and troubleshooting protocols.
	Created a procedure document and training targeted at front desk staff who deal with customers who are having issues with Township Electric Vehicle Charging Stations.
	Attended Municipal Awareness Day event with an EV to discuss and demonstrate their use with elementary schools. Station will highlight how EV's do not burn fossil fuels and the environmental benefits associated.
	Hosted Commuter Challenge event to promote carpooling and other forms of transportation beyond SOVs.

	Participated in Bike to Work Week.
	Participated in EV Suitability Assessment in partnership with the Fraser Basin Council to look at the viability of incorporating EVs into corporate fleet
Corporate Actions Proposed for 2018	
	Attend Municipal Awareness Day event with an EV to discuss and demonstrate their use with elementary schools. Station will highlight how EV's do not burn fossil fuels and the environmental benefits associated.
	Deliver training sessions with approximately 200 crew staff members to educate about the one-minute idling policy and to dispel idling myths.
	Host Commuter Challenge event to promote carpooling and other forms of transportation beyond SOVs.
	Participate in Bike to Work Week
	Expand EV charging infrastructure at Operations Works Yard to allow for the procurement of more EVs into corporate fleet
	Procure new fleet vehicle that runs on propane rather than diesel

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): in 2018 will propose new residential EV charging requirements be passed into bylaw	Yes
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?	No

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	
	Community recreation facility water facet/toilet retrofits.
	ICI water audits and retrofits assessment for restaurants within the Township.
	Advising committee with Metro Vancouver for a new region-wide Water Shortage Response Plan.
	All Waterwise, water ambassadors, school programs continued in 2017 with 3000 residential homes visited and 30 classroom workshops provided.
	Creation of the “Don’t Waste What We Drink” water conservation campaign included video and print media. Reducing water consumption in turn reduces energy use related to collection, treatment, and distribution of water; infrastructure replacement needs reduced with conservation.
	Advising committee with Metro Vancouver for Municipal Residential Water Metering Assessment
	Empower Me shared water conservation messaging through the community.
	In partnership with BC Hydro a washer rebate program was in effect in 2017 for water conserving units.
Community-Wide Actions Proposed for 2018	
	Retrofits will continue at community facilities.
	The new region wide Drinking Water Conservation Plan is now in effect (May 1 – Oct 15) as the Drinking Water Conservation Bylaw.
	Waterwise, water ambassadors, school programs will commence June 2018 with a target of 3000 residential homes to be visited and 30 classroom workshops provided.
	The “Don’t Waste What We Drink” water conservation campaign will run again in 2018 to support the new Drinking Water Conservation Bylaw.
	Empower Me will continue outreach in the community to share water conservation messaging in 2018.
	The partnership with BC Hydro will continue in 2018 to offer a washer rebate program.

Corporate Actions Taken in 2017	
	The Bylaw Enforcement Bylaw was updated to allow for \$500 fines for developers that do not follow Streamside Enhancement and Protection guidelines.
	Continued to retrofit facilities with more water efficient fixtures from the recommendations outlined during the facilities audit project.
	Analysis of next steps for pool renovations.
	Continue to monitor and report on changes in water use at corporate facilities since fixture implementation.
Corporate Actions Proposed for 2018	
	Water efficiency measures at the new Aldergrove Credit Union Community Centre (and water park) include: <ul style="list-style-type: none"> • Water efficient irrigation system

	<ul style="list-style-type: none"> • Water efficient plumbing fixtures (e.g. sensed sinks, etc.) • Unlike typical water spray parks, all the water here is recirculated • The Defender® Regenerative Media Filter provides exceptional water filtration along with significant water savings compared to traditional sand filtration
	The Water Shortage Response Bylaw was repealed and replaced by the Drinking Water Conservation Bylaw (adopted by Council March, 2018).

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"> • Changes to temperature and precipitation causing seasonal drought • Extreme weather events contributing to urban and overland flooding • Health of residents in relation to air quality 	
Other: Increased temperatures and changes in pest patterns and populations affecting local food production	

In 2017 has your local government addressed the impacts of a changing climate using any of the following?	
Risk and Vulnerability Assessments	No
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	No
Incentives for property owner (e.g. reducing storm water run-off)	No
Public education and awareness	No
Research	No
Mapping	No
Partnerships	No
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.	
	Completed a Report to Council outlining the value in developing a Climate Change Adaptation Plan, which was unanimously approved.
Climate Change Adaptation Actions Proposed for 2018	
	Applied for FCM's MCIP funding for a Climate Change Adaptation Plan and was awarded funding to develop a Climate Change Adaptation Plan
	Complete a Natural Capital Asset Inventory as part of the Township's Climate Change Adaptation Plan.
For more information please contact:	
	Krista Daniszewski kdaniszewski@tol.ca

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

2017 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 2017	
	Acquire a Sustainability Scholar in partnership with UBC and BC Hydro to examine best practices to integrate sustainability into workplace culture
	Sponsor 8 'Cool It' Climate Change workshops provided through BCSEA
	Offer the Empower Me program to Township residents. The program engages multi-lingual communities and delivers municipal and utility messages about energy, water, waste and safety. Empower Me encourages energy saving home upgrades and behaviours through up to 3 site visits with participants that include a personalized energy audit, a customized recommendation plan, an energy savings kit, and follow up support for any upgrades.
	Township partnered with Langley Sustainable Agriculture Foundation for the Ecological Services Initiative, the second year in a 3 year pilot project. This pilot involves 10 farms along Bertrand Creek in South Aldergrove created to help farmers bear the cost of keeping waterways, forests, and other

	ecologically sensitive areas clean and healthy for current and future generations.
Community-Wide Actions Proposed for 2018	
	Continue to offer the 'Empower Me' program, including adding their presence at various community events.
	Sponsor 8 'Cool It' Climate Change workshops provided through BCSEA
	Complete 3 year pilot project for Ecological Services Initiative

Corporate Actions Taken in 2017	
	Maintained carbon neutral status
	Developed a Corporate Energy Management Policy and Climate Action Reserve Fund to allow for the implementation of energy efficiency projects in corporate facilities and climate leadership projects in the community.

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
Partnered with BC Hydro to install 3 HVUC (high-voltage utility connected) level II chargers in Willoughby Town Centre and North Langley Shopping Centre to expand EV charging infrastructure in the community and test new EV charging technology
For more information contact: Tess Rouse trouse@tol.ca
Corporate Action

For more information contact:

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

Dreamrider Theatre, Fraser Basin Council, BC Hydro, Fortis, UBCM, Community Energy Association, BCSEA, Metro Vancouver, Translink, HUB, HASTe, LifeCycle

Adaptation

Programs and Funding

FCM, CCA, ICLEI

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:	5,482
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:	683
TOTAL A: CORPORATE GHG EMISSIONS FOR 2017	6,165 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	
Solar Thermal	

Household Organic Waste Composting	
Carbon reductions provided by Metro Vancouver for 2016 in the Municipal Organic Waste Diversion and Composting in Metro Vancouver Report (May 23, 2018)	2,332
Low Emission Vehicles	
Avoided Forest Conversion	
Avoided Forest Conversion Carbon Project reductions in a report provided by 3greentree Ecosystem Services (October 20, 2015).	1,276
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2017	3,608 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
Jackman Landfill Methane Capture (Option 2)	2,557
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2017	2,557 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
TOTAL D: OFFSETS PURCHASED FOR 2017	tCO2e

TOTAL REDUCTIONS AND OFFSETS FOR 2017 (Total B+C+D) = 2,332 + 1,276 + 2,557 = 6,165 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)) = 6,165 – (2,332 + 1,276 + 2,557) = 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
Avoided Forest Conversion	2,248
Avoided Forest Conversion Carbon Project reductions in a report provided by 3greentree Ecosystem Services (October 20, 2015).	
BALANCE OF REDUCTIONS ELIGIBLE FOR CARRY OVER TO NEXT YEAR	2,248 tCO₂e

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

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:
n/a

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	