

City of Coquitlam Climate Action Survey 2016

Climate Action Revenue Incentive Program (CARIP) Public Report for 2016



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The **City of Coquitlam** 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.

Community-Wide Actions Taken in 2016	
	Completed the update of the Community GHG Reduction Strategy and implementation plan and reported to Council on community GHG reduction progress.
	Continued progress on the Northwest Burke Vision planning process.
	Continued progress on the Burquitlam-Lougheed Neighbourhood Plan update. Community engagement actions included: information sessions, online survey, public advisory group, Commercial Property Owners workshop, Neighbourhood Association meetings, presented to the Multiculturalism Advisory Committee, and engaged with the City of Burnaby.
	Continued to develop plans for the Partington Creek Neighbourhood Centre as a mixed-use neighbourhood centre consisting of a range of commercial uses and a mix of housing types on Burke Mountain.
	Hosted the Empower Me program which is designed to encourage energy reduction at home. From January to December, 164 Coquitlam homes participated in the program, outreach was provided at 37 community events, and nearly 4,000 people were engaged through events and home visits.
	Hosted the Emotive program which promotes the use of electric vehicles.
	Initiated the review of the Housing Choices program – a process to explore infill opportunities for different housing types in Southwest Coquitlam.
	Initiated the Austin Heights Centre Density and Height Review in the Austin Heights neighbourhood of Coquitlam.
	Initiated the Coquitlam Centre mall master plan framework, working with the land owner to focus future mixed-use and high-density residential development around Skytrain stations in the City Centre area.
Community-Wide Actions Proposed for 2017	
	Work towards the completion of the Burquitlam-Lougheed Neighbourhood Plan update.
	Work towards the completion of the Northwest Burke Vision planning process.
	Work towards the completion of the Housing Choices program review.
	Work towards the completion of the Austin Heights Centre Density and Height Review.
	Work towards the completion of the Coquitlam Centre mall master plan framework and Phase 1 redevelopment.
	Initiate the City Centre Area Plan, which will determine the long-term vision for the city

centre area of Coquitlam, envisioned to be a high-density walkable mixed-use downtown for the northeast sector focussed around Skytrain stations.

Corporate Actions Taken in 2016	
	Completed the development of new corporate energy and emissions targets beyond 2015.
	Continued to employ a permanent full-time Energy Manager and a temporary full-time Energy Specialist with the main scope of work focused on energy and climate action. Maintained the Carbon Cutters team - the City's multi-departmental climate action stewardship team.
	Continued to implement a workplace energy conservation and awareness program through the Energy Wise Network (sponsored by BC Hydro and Fortis BC). This is driven by the cross-departmental Carbon Cutters team; it includes both awareness and operational initiatives aimed at fostering a culture of conservation while reducing the City's Corporate Carbon footprint.
Corporate Actions Proposed for 2017	
	Adopt a new Corporate GHG emission reduction target of 40% below 2007 levels by 2025 (complete).
	Continue implementing energy conservation and awareness programs through the Energy Wise Network.
	Continue to develop and implement the Strategic Energy Management Plan, which outlines the projects and strategy to achieve further energy reductions.

Broad Planning	
What is (are) your current GHG reduction target(s)?	<p>Community targets to reduce GHG emissions by 15% below 2007 levels by 2031 and per capita annual GHG emissions 30% below 2007 levels by 2021.</p> <p>Corporate targets to reduce GHG emissions 30% below 2007 levels by 2015. New targets set in 2017 to reduce corporate GHG emissions by 40% below 2007 levels by 2025.</p>
Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes/No

What plans, policies or guidelines govern the implementation of climate mitigation in your community?	
• Community Energy and Emissions (CEE) Plan	Yes/No
• Climate Action Plan	Yes/No
• Integrated Community Sustainability Plan	Yes/No
• Official Community Plan (OCP)	Yes/No
• Regional Growth Strategy (RGS)	Yes/No
• Do not have a plan	Yes/No
• Other: Green Development Guide	Yes/No
Does your local government have a corporate GHG reduction plan?	Yes/No
Does your local government have a climate reserve fund or something similar?	Yes/No

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.

Community-Wide Actions Taken in 2016	
	Supported an energy outreach program at the Evergreen Cultural Centre that provided education to both staff and community members.
	Continued to implement mixed-use and apartment residential development around future Evergreen Line station areas, including City Centre, Lougheed and Burquitlam to support greater use of transit.
	Continued progress on the Northwest Burke Vision planning process.
	Continued progress on the Burquitlam- Lougheed Neighbourhood Plan update which includes higher levels of housing density.
	Established a Small Business Energy pilot to raise awareness about rebate programs and energy conservation. Provided training to front line staff to encourage resident and business use of energy efficiency programs.
	Partnered on the Empower Me outreach program to deliver in-language energy conservation and environmental education to new residents.
	Promoted solar power use by collaborating with the private sector and streamlining the City's permitting process/requirements.

Community-Wide Actions Proposed for 2017	
	Work towards completion of the Burquitlam-Lougheed Neighbourhood Plan. Continue to engage citizens in the planning process and promote development of transit-oriented communities consisting of mixed land uses and diverse housing opportunities.
	Work towards the completion of the Northwest Burke Vision planning process.

Corporate Actions Taken in 2016	
	Completed system controls training for building operators and facility staff.
	Installed signage at Coquitlam's sports fields to promote turning off field lighting after activities.
	Enhanced operational controls at Dogwood Pavilion and the Austin Works Yard.
	Completed an LED Street Lighting pilot study.
	Completed the installation of LED lighting at the Mackin Park Tennis courts.
	Identified and corrected electrical losses at pump stations.
	Installed new LED lighting at Spani Pool.
	Purchased new LED lights for winter lights display.
Corporate Actions Proposed for 2017	
	Install energy efficient interior and exterior lighting at Austin Works Yard.
	Develop, define and approve a city-wide LED street lighting retrofit strategy.
	Investigate opportunities for solar heating at outdoor pools and solar photovoltaic technology for civic facilities.
	Upgrade the hot water and boiler system at the Coquitlam Public Library to eliminate simultaneous heating and cooling in the summer.
	Upgrade the domestic hot water heater at the Austin Works Yard to a higher efficiency model.
	Upgrade boiler at Poirier Community Centre to high-efficiency model.
	Install LED lighting at the Poirier Sports and Leisure Complex pool.
	Install LED lighting at four fire stations and Dogwood Pavilion.
	Implement a pilot project to test a water-treatment product that improves heat transfer within heating and boiler systems. The pilot should result in approx. 10% natural gas savings.

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.

Corporate Actions Proposed for 2017

	Investigate options for adding renewable energy systems in different outdoor applications.
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Energy Generation

Is your local government developing, or constructing:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	<p>Yes/No</p> <p>Yes/No</p>
Is your local government operating:	
<ul style="list-style-type: none"> • A district energy system • A renewable energy system 	<p>Yes/No</p> <p>Yes/No</p>
Is your local government connected to a district energy system that is operated by another energy provider?	Yes/No
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit ?	Yes/No

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.

Community-Wide Actions Taken in 2016	
	Planted 3,677 native trees and shrubs as part of the restoration of 3,256 square meters of forest habitat.
	Residents planted 125 specimen trees on City and private property as part of the Neighbourhood Tree Days program to celebrate Coquitlam's 125 th birthday.
	Attended City events including Canada Day and several Neighbourhood Nights to educate the public about invasive plants and their impact on our forested habitats.
	Continued to sponsor two community gardens and support a third garden on municipal parkland.
	Offered a number of parks programs to teach residents about urban agriculture.
	Grew produce at the Inspiration Garden with the help of community volunteers, and donated back to the community.
	Conducted a pilot edible garden project "The Coquitlam Munch" for Coquitlam's 125th anniversary.
Community-Wide Actions Proposed for 2017	
	Restore and plant a comparable area of forest habitat as the previous year.
	Engage residents to plant 75 specimen trees on their boulevards through the Growing Community Roots program.
	Continue to sponsor community gardens and offer urban agriculture programs.
	Raise awareness of local pollinators through community planting events and other activities in Coquitlam parks.
	Continue to host school tours in the Inspiration Garden that focus on environmental topics such as, insects and pollinators.

Corporate Actions Taken in 2016	
	Implemented some aspects of the Mundy Park Forest Management Plan, including invasive plant removal, additional trail building and wildfire fuel management.
	Used the invasive plant inventory to prioritize and remove invasive plants in parkland.
Corporate Actions Proposed for 2017	
	Continue to use the invasive plant inventory to prioritize and remove invasive plants in parkland.

Continue to implement aspects of the Mundy Park Forest Management Plan, including invasive plant removal, closure of unsanctioned trails in sensitive habitat areas and additional wildfire fuel management.
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Greenspace	
Does your local government have urban forest policies, plans or programs?	Yes/No

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.

Community-Wide Actions Taken in 2016	
	Implemented a pilot project testing the efficacy of wildlife resistant gravity locking devices on green carts and garbage carts as an alternative to the wildlife clips.
	Revised the Solid Waste Management Bylaw to improve clarity and enforceability of provisions (e.g. waste diversion requirements).
	Continued public communication campaigns to educate residents on the need to separate wastes (green waste, recyclables and garbage).
	Escalated the enforcement of cross-contamination of green carts and garbage carts to ensure a high rate of residential waste diversion.
	Continued to implement an award-winning school program, developed by staff, to provide waste reduction educational presentations and activities tailored for different grade levels.
	Committed to providing 60% of the funding needed to support the ongoing operation of the Metro Vancouver-owned recycling depot located in the City.
Community-Wide Actions Proposed for 2017	
	Continue to provide residents of new homes with varying cart size options for garbage and organics. Continue to provide these new residents with educational materials; similar to the information provided to existing residents during the 2014 system rollout.
	Assess the results of the gravity locking device and wildlife clip pilot.

	Increase enforcement of the Solid Waste Management bylaw to improve waste diversion and decrease contamination of the organics stream.
	Continue to update and revise the Solid Waste Management Bylaw.
	Review and revise the curriculum for the award-winning school program to extend the program to a broader age range and to other youth groups outside of schools (e.g scouts, brownies, etc.)
	Extend public outreach program by increasing the number of presentations to new residents and community groups, which provide in-depth information on the need to separate waste.
	Improve the range of recycling services and quality of operation at the existing City-owned residential recycling depot.
	Continue negotiations with two neighbouring cities and Metro Vancouver to support the design and funding for the construction and operation of a new dedicated regional recycling depot, proposed to be located in the City.

Corporate Actions Taken in 2016	
	Completed installation of outdoor fencing at all civic facilities to house new recycling and organics bins, prevent illegal dumping and reduce contamination of waste streams.
	Provided remaining civic facilities with new waste, organics and recycling bins to encourage waste separation.
Corporate Actions Proposed for 2017	
	Conduct waste audits at 6 major facilities and conduct a staff survey to help assess and implement improvements and updates to the recycling programs in City facilities.
	Improve communications materials specific to each facility to increase waste diversion by staff and patrons.
	Continue to educate staff and the public to sort organics and recyclables from the waste stream. Recruit Waste Ambassadors from each civic facility to assist in continuing promotion of the new recycling system.
	Investigate a process for calculating the diversion rate at all civic facilities without conducting waste audits, to enable more accurate, annual waste diversion rates from civic facilities.
	Explore opportunities to expand the recycling program to include additional recyclable items through a waste audit and staff survey.

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

Community -Wide Actions Taken in 2016	
	Increased bike route infrastructure by 6.3km for a total of 50.1 km of bike lanes, multi-use pathways, local bikeways and marked wide curb lanes.
	Worked with Modo and Zip-Car to expand their Coquitlam car-sharing fleet, particularly around the new Evergreen Line Stations.
	Offered four subsidized Ride the Road courses through Parks, Recreation & Culture for 41 children aged 3 to 12 that were conducted by HUB in Coquitlam.
	Offered Ride the Road courses for a total of 28 classes (approximately 770 students) in four of Coquitlam’s middle schools.
	In partnership with TravelSmart, HASTe and other stakeholders, completed school travel planning at Coquitlam’s Middle Schools Walkability Program to assess infrastructure needs and encourage sustainable transportation.
	Constructed approximately 1.9 km of new sidewalks under the Sidewalk Program and another 0.4 km of new sidewalks under the Middle School Walkability Program.
	Awarded a TransLink Cycling Grant and a Provincial Cycling Grant.
	Promoted sustainable transportation at Coquitlam’s Canada Day and Welcome to Coquitlam events.
	Published a brochure entitled “ <i>Rules, Courtesies & Tips for Safer Cycling</i> ”.
	Implemented “Way Finding” signage along the Evergreen Corridor.

	Sponsored four cycling commuter stations during Bike to Work Week in May (2) and October (2).
	Offered four basic bike maintenance courses at Poirier Library, City Centre Library and Victoria Hall.
	Supported the use of electric vehicles by enhancing the signage at the City Hall Electric Vehicle Station to improve.
	Constructed a 150 stall Park-n-Ride pay parking lot for the Evergreen Line Station at Lafarge Lake / Douglas Station and re-purposed a 100 stall pay parking facility for the Park-n-Ride near the Lincoln Station.
Community-Wide Actions Proposed for 2017	
	Continue expanding bike route infrastructure, including the Dogwood Fairview Greenway (2.2 km) and the Barnet Hwy bike lane completion project (2.0 km).
	Continue expanding sidewalk infrastructure, including approximately 0.9 km of new sidewalks built under the Sidewalk Program and 0.4 km of new sidewalks under the Middle School Walkability Program.
	Continue to support the expansion of car-sharing in Coquitlam.
	Work with TravelSmart to promote sustainable transportation at events in the City (e.g. Kaleidoscope multicultural fair).
	Continue to promote sustainable transportation at Coquitlam's Canada Day and Welcome to Coquitlam events.
	Continue to sponsor commuter stations for Bike to Work Week.
	Bring forward amendments to the Subdivision and Development Servicing Bylaw to establish LED lighting as the standard light source for all new City street lights.
	Bring forward a business case to replace all of our existing HPS lights with LED lights over a multi (5) year program.
	Update the traffic signal co-ordination timing plans along the Evergreen Line routes to minimize travel times and stops and maximize safety.

Corporate Actions Taken in 2016	
	Reviewed fleet and employee personal vehicle usage to optimize fleet and ensure emissions are minimized.

	Continued to enforce anti-idling policy using GPS tracking and issuing reports to the user's department.
	Continued to right-size fleet and replace existing vehicles with hybrids when leases expire.
	Promoted staff participation in Bike to Work Week.
	Promoted staff participation in the Commuter Challenge.
	Offered a bike maintenance workshop for staff conducted by HUB at Glen Pine Pavilion in May 2016.
	Added a plug-in hybrid electric vehicle to the Fire fleet (approximately 5,200 km were traveled in 2016).
	Developed a Corporate Employee Sustainable Commute Program for commuting to work as well as during work hours. The program includes promotion of car-sharing, use of transit, cycling and walking to alleviate demand on current parking supply, reducing parking pressures for Coquitlam's City Centre and hosting an Employee Commuting Options Workshop with TransLink prior to the Evergreen Line opening.
	Added four new energy and water efficient fire trucks to the Fire fleet.
Corporate Actions Proposed for 2017	
	Continue to monitor and implement enhancements to the Employee Sustainable Commute Program (including car sharing, transit, cycling, walking and parking management).
	Continue to promote usage of the electric vehicle by staff.
	Continue to promote anti-idling policy and track through GPS.
	Continue to right-size fleet and replace existing vehicles with hybrids or plug-in hybrid electric vehicles where possible.
	Offer a bike maintenance workshop for staff conducted by HUB at Works Yard in May 2017.
	Continue to promote Bike to Work Week and the Commuter Challenge.

Transportation	
Does your local government have policies, plans or programs to support:	
• Walking	Yes/No
• Cycling	Yes/No
• Transit Use	Yes/No
• Electric Vehicle Use	Yes/No
• Other (please specify)	Yes/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)?	Yes/No
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes/No

2016 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 2016	
	Deployed three seasonal water conservation bylaw officers to enforce summer watering restrictions based on the regional Water Shortage Response Plan (WSRP) between May 15 and October 15.
	Delivered water conservation outreach through door-to-door interaction and at 13 local outreach events.
	Collaborated with the Tri-Cities municipalities to deliver a European Chafer Beetle education campaign that included water wise lawn care guidelines. Staff also educated the public on Chafer beetle through outdoor workshops at the City’s Inspiration Garden.
	Continued to require new developments to install landscapes with sufficient topsoil depth as a rainwater management measure.
	Collaborated with Metro Vancouver to host free public Coquitlam Watershed tours during BC Water Week.
	Partnered with BC Hydro to implement a clothes washer appliance rebate program in the spring and fall. Based on rebates between Spring 2015 to Spring 2016, the City saved 6.25 tonnes of CO ₂ e and 853,421 litres of water per year.
	Offered at-cost sales of rain barrels, water wise kits, and electronic water timers as water conservation tools for the public.
	Implemented a rain barrel truckload sale event, selling over 400 rain barrels. This is the second year that the City has hosted the event.
	Hosted educational workshops at the City’s “Inspiration Garden” to promote water wise

	gardening.
	Sponsored five water conservation school programs at Coquitlam schools through DreamRider Theatre that reaches approximately 1,100 children each year.
	Implemented lawn alternative trials to test the performance of drought and pest-tolerant ground cover plants. Recommended plant species are shared on the City's webpage on Chafer beetle management.
Community-Wide Actions Proposed for 2017	
	Continue enforcing summer watering restrictions based on the regional Water Shortage Response Plan (WSRP).
	Continue delivering door-to-door and community event outreach on water conservation and enhance material with interactive activities engaging children around drinking water, City water infrastructure, and conserving water and energy at home.
	Continue collaborating with the Tri-Cities municipalities on the ongoing European Chafer beetle education campaign that includes water wise and lawn care guidelines.
	Continue to host BC Water Week in Coquitlam by collaborating with Metro Vancouver on offering free public tours to the Coquitlam watershed.
	Continue partnering with BC Hydro to implement the clothes washer appliance rebate program.
	Continue offering at-cost sales of rain barrels, water wise kits and electronic water timers as water conservation tools for residents.
	Continue hosting the rain barrel truckload sale event once a year. The 2017 event will include collaboration with the Tri-Cities municipalities.
	Continue hosting educational workshops at the City's "Inspiration Garden" to promote water wise gardening.
	Continue to sponsor five water conservation school programs at Coquitlam schools each year.

Corporate Actions Taken in 2016	
	Amended the City's Water Shortage Response Plan (WSRP) Bylaw based on amendments made to Metro Vancouver's WSRP. The updated bylaw extended the activation period of Stage 1 restrictions to May 15 – October 15, allowed aesthetic commercial cleaning of outdoor surfaces in Stage 2 restrictions, and allowed existing water exemption permits to remain valid in Stage 3 restrictions.
	Attended Metro Vancouver's local government workshop to discuss proposed changes to the regional WSRP which would be implemented in 2018.
	Attended a "Drought Preparedness in BC" workshop hosted by the University of BC that engaged discussions among local governments and academic institutions on lessons learned

	from the 2015 drought period and on innovative ideas to enhance water efficiency in the province.
	Attended a Metro Vancouver workshop on promoting water efficiency and conservation in the industrial, commercial and institutional (ICI) sector.
	Upgraded existing irrigation systems to help minimize leaks and to detect rain events.
	Attended regular regional Water Conservation Coordinators' Committee meetings to ensure consistency in water conservation messaging and initiatives.
	Continued to enforce compliance with the BC Building Code through plumbing inspections.
	Continued to fund a water conservation program budget each year.
	Continued the ongoing leak detection program; consisting of acoustic leak monitors deployed year-round. The City sweeps 200,000 m of water mains each year.
	Developed an inflow and infiltration program to mitigate clean ground water from entering the sanitary sewer system and burdening regional treatment facilities. The program includes infiltration trenches or roadside swales for new roads and pervious pavement and parking lot or median bio swales on select sites to mitigate flow spikes in local streams caused by rain events and to keep the ground water tabled charged.
Corporate Actions Proposed for 2017	
	Amend the City's WSRP Bylaw to adopt the anticipated changes to Metro Vancouver's regional WSRP in late 2017.
	Continue attending regular regional Water Conservation Coordinators' Committee meetings.
	Continue to hire three seasonal water conservation bylaw officers from May 1 to the beginning of October to enforce the WSRP Bylaw and to deliver water conservation outreach and education.
	Enhance the City's water conservation branding and marketing campaign to ensure consistency with Metro Vancouver's water conservation campaign.
	Continue to upgrade existing irrigation systems including investigating opportunities for solar powered systems.
Water Conservation	
Does your local government have water conservation policies, plans or programs?	Yes/No

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.

Climate Change Adaptation Actions Taken in 2016	
	Revised the City’s drainage system design criteria to reflect updated intensity, duration and frequency rainfall curves. The City monitors changes to climate and adjusts design criteria as necessary.
	Completed floodplain mapping including projections of flood levels for the years 2100 and 2200.
	Enforced summer watering restrictions based on the regional Water Shortage Response Plan (WSRP) and delivered water conservation outreach through door-to-door interaction and at local outreach events.
	Continue to implement the City’s Rainwater Management Requirements to adapt to an increase in quantity and frequency of rainfall anticipated from climate change. Requirements to capture and infiltrate rainfall are applied to all new developments.
	Continued to implement and monitor the integrated watershed management plans for all urban watersheds. IWMPs balance land development, engineering and environmental objectives to preserve watershed health. The plans incorporate actions that support ecosystem based adaptation to climate change in urban areas.
	Continued to offer the Building Better program which showcases projects that use sustainable building practices, including, pervious asphalt, rain gardens, and bio swales.
Climate Change Adaptation Actions Proposed for 2017	
	Continue implementing actions from 2016.
	Review policies for land development in floodplains.
	Investigate opportunities to develop a climate change adaptation strategy.

In 2016 did you consider climate change impacts in any of the following areas? (check if yes)	
Risk reduction strategies <u>YES</u>	

Risk and Vulnerability assessment <u>YES</u> Asset management <u>YES</u> Infrastructure upgrades (e.g. stormwater system upgrades) <u>YES</u> Cross-department working groups <u>NO</u> Emergency response planning <u>YES</u> Land-use policy changes (eg. OCP, DPA) <u>YES</u> Economic diversification initiatives <u>YES</u> Ecosystem-based approaches (incl. shorelines) <u>YES</u> Incentives (e.g. property owner reducing stormwater run-off) <u>YES</u> Public education and awareness <u>YES</u> Research (e.g. mapping, participation in studies) <u>YES</u> Other (Please Identify):	
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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.

Other	
Are you familiar with the Community Lifecycle Infrastructure Costing Tool (CLIC) ?	Yes/No
Have you used CLIC?	Yes/No

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.

Corporate Innovative Action

Since 2010, the City's corporate green team, the Carbon Cutters, with support from BC Hydro and Fortis BC, have implemented more than 25 campaigns engaging staff in energy conservation behaviours. The team of 12 staff members, from 9 different divisions, supports operational and behavioural changes to achieve energy reductions, and these efforts have collectively resulted in reducing approximately 500,000 kWh annually, which represents approximately \$50,000 in energy cost savings. Building on the success of this program in targeting City operations, in 2015, the Carbon Cutters began connecting with facilities that are owned by the City but are operated by third parties, such as Place des Arts, the Coquitlam Libraries and the Evergreen Cultural Centre. Reaching out to the greater community, through the City's not for profit societies, is a creative way to educate and shift behaviours of a broader audience and is not a standard practice for most municipalities. These campaigns are designed to engage staff in energy conservation activities and raise public awareness of the benefits of energy conservation and the rebate programs available to residents.

At Place des Arts, the Carbon Cutters supported the creation of customized energy conservation campaigns, which drew more than 1,100 patrons to art workshops directly related to fighting energy waste. Place des Arts' participation and creativity was highlighted as a best practice at the 2016 BC Hydro Energy Management Forum, the Fortis Energy Specialist Workshop and was recognized at the City's Environmental Achievement Awards. The program at Place des Arts was also showcased in BC Hydro's Stories and Features webpage at the beginning of 2017: <https://www.bchydro.com/news/conservation/2017/place-des-arts.html>. Building on the success of this program, Place des Arts and the City of Coquitlam, with support from Fortis BC, are implementing an energy conservation themed arts camp in August 2017.

In 2017, the City of Coquitlam is also partnering with the Evergreen Cultural Centre to create an energy conservation engagement program targeting school aged children, cultural centre staff and visitors to the centre. The program promotes energy conservation behaviours through visual and performing arts.

In 2016, the City launched the Empower Me Program in partnership with FortisBC and BC Hydro, which is a pilot program that offers in-language, peer-to-peer support to immigrant residents to help them save energy and make their homes safer. From January to December, 164 Coquitlam homes participated in the program, outreach was provided at 37 community events, and nearly 4,000 people were engaged through events and home visits. In September, the Empower Me Partnership was recognized at the Union of BC Municipalities' Climate & Energy Action Awards with honourable mention for Public Sector Organization and Local Government Collaboration.

Engaging organizations outside of the City's conventional corporate facilities allows the City to connect with a diverse group of community members on a more personal level. The initiatives described above go beyond typical corporate outreach strategies, creating fun and informative

educational programs that influence energy conservation behaviours of the greater community.

Corporate Innovative Action

In 2016, the City of Coquitlam won the Community Energy Association’s Climate Energy Action Award for Corporate Operations. The award was based on Coquitlam’s implementation actions associated with the *Corporate Strategic Energy Management Plan*. As a result of the City’s commitment to the energy management portfolio, Coquitlam has avoided \$4 million in energy costs and the City has successfully reduced the corporate greenhouse gas emissions by 24% during a period of unparalleled population growth (20% population growth between 2007 and 2015). <http://communityenergy.bc.ca/cea-2016-award-winners/>

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

- BC Hydro partnership in various energy efficiency programs
- FortisBC partnership in various energy efficiency programs

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/No
If your local government measured 2016 corporate GHG emissions, please	4,369

report 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 the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	934
TOTAL A: CORPORATE GHG EMISSIONS FOR 2016	5,303 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
Household Organic Waste Composting 2016	4,076
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2016	4,076 tCO₂e

TOTAL REDUCTIONS AND OFFSETS FOR 2016 (Total B+C+D) = 4,076 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)) = 1,227 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:

The City of Coquitlam set ambitious voluntary corporate climate action targets in 2007 to reduce greenhouse gas (GHG) emissions by 30% below 2007 levels. For the past 4 years, the City has shown a consistent reduction of over 20% below 2007 levels. Through year-end, the City has reduced corporate, in-house, absolute GHG emissions by approximately 1,428 tonnes of CO₂e or 24% and achieved carbon neutrality for the year 2015. These results were accomplished through a strategic and comprehensive energy management plan which included implementing energy conservation measures, prioritizing energy-efficiency in renovations and new construction, and adoption of energy-conscious behaviours across the organization. Since 2008, the City has implemented more than 70 energy conservation measures, investing \$6 million in energy conservation projects, reducing approximately 4.9GWh in electricity annually, and saving approximately \$4 million in avoided energy costs. A significant financial and staff resource investment have been allocated to the energy management portfolio. The City also has a carbon offset reserve which provides dedicated funding for projects that reduce the City’s carbon footprint.

In 2010, the state of the art Thermenex heat recovery system was commissioned at the Poirier Sports and Leisure Complex (PSLC), a fully integrated recreational facility that includes arena, pool, fitness, meeting room and cafeteria facilities. In the first 12 months of operation, natural gas consumption declined by approximately 30% or 10, 429 GJ and GHG emissions dropped by nearly 495 tonnes, representing a 46% decline relative to business as usual. PSLC also realized a net operating cost reduction of \$22,000, despite the 73% facility size increase.

Based on the success of the PSLC Thermenex system, the City implemented the innovative City Centre Civic Campus Thermenex project which completed commissioning in April 2015. This large, complex project connects and improves the efficiency of the heating and cooling systems of City Hall, the Public Safety Building, the City Centre Aquatic Complex and the Evergreen Cultural Centre, sharing the energy between the four civic facilities. In 2016, the system reduced the GHG

emissions of these four facilities by 40% (460 tonnes of CO₂e). Both the PSLC and the City Centre Civic Campus Thermenex systems are expandable to future infrastructure.

According to BC population estimates, the City of Coquitlam has grown by 22% since 2007. This rapid growth has affected City operations in a variety of ways: the addition of more than 24,000 square meters of City facilities, an increase in recreation centre attendance and a significant expansion in services related to new parks, improved roads and facility maintenance. In 2016, Coquitlam also experienced an exceptional winter which demanded greater heating requirements and increased fuel consumption for snow removal activities. It is remarkable that despite the growth of services and infrastructure and a significant winter, the City's 2016 GHG emissions were approximately 24% less than the 2007 GHG emissions (37% reduction if corrected for growth).

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:

<input type="checkbox"/>	Level 1 – Demonstrating Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 – Measuring GHG Emissions	
<input checked="" type="checkbox"/>	Level 3 – Accelerating Progress on Charter Commitments	✓
<input type="checkbox"/>	Level 4 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	