

carbon neutrality in corporate operations – originally required by 2012 - was subsequently modified by the Province to allow for a “making progress” designation whereby local governments can work towards carbon neutrality but are not required to achieve a zero carbon balance.

At its Regular meeting on October 14, 2010 Council considered Corporate Report No. R214; 2010 titled “City of Surrey Corporate GHG Emissions Action Plan”, and approved the City’s *Corporate Emissions Action Plan* (CEAP). The CEAP includes a target to reduce corporate GHG emissions by 20% by 2020 and 13 actions to reduce emissions in the areas of buildings, fleet and infrastructure and with respect to leadership and public engagement. It was recognized that this target would be challenging in view of the City’s rapid growth in population and the opening of new City facilities. Since 2010, the City has taken significant steps toward monitoring and reducing corporate emissions. To support the emissions reduction work, the City completes an annual inventory of corporate fuel use and emissions related to fleet and building operations.

For the 2015 reporting year, the Province has modified the reporting requirements and only requires that one survey be completed, by June 1, 2016: the **2015 CARIP Climate Action/Carbon Neutral Progress Survey**. This Survey, which includes corporate and community-level actions, was completed and is attached as Appendix “I”.

DISCUSSION

Corporate Greenhouse Gas Emissions Inventory 2015

The City produces an annual inventory of corporate fuel usage and resulting GHG emissions. Following provincial guidelines, fuel use is divided into six Service Areas:

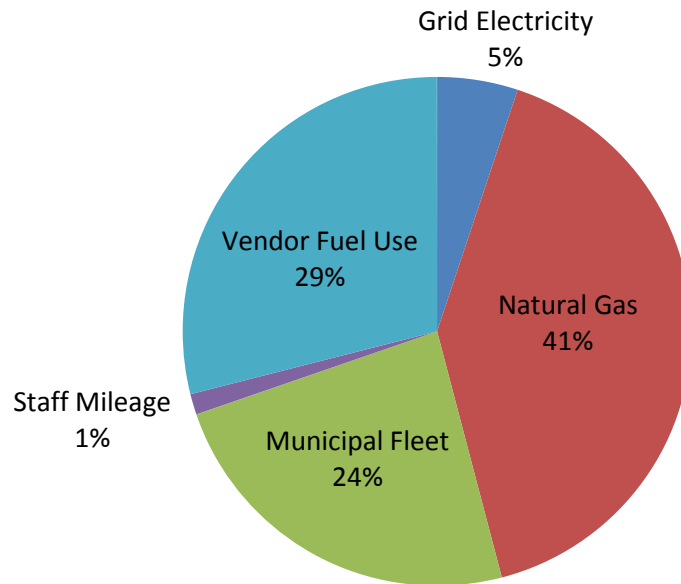
- Fire Protection;
- Solid Waste Collection, Transportation and Diversion;
- Arts, Recreation, Parks and Cultural Services;
- Road and Traffic Operations;
- Drinking, Storm and Waste Water; and
- Administration and Governance.

The City’s emissions inventory includes fuel usage and resulting GHG emissions from vendors who are contracted to provide traditional services to the City, such as waste collection and streetlight maintenance.

From 2009 through 2014, the City used a basic Excel tool (called the “Cool Tool”) from the Pembina Institute for tracking purposes. In 2015, the City partnered with BC Hydro to begin using a more sophisticated inventory tool called “Trident” for tracking corporate emissions. Significant effort has been spent in 2016 to enter and calibrate all annual data in the Trident tool.

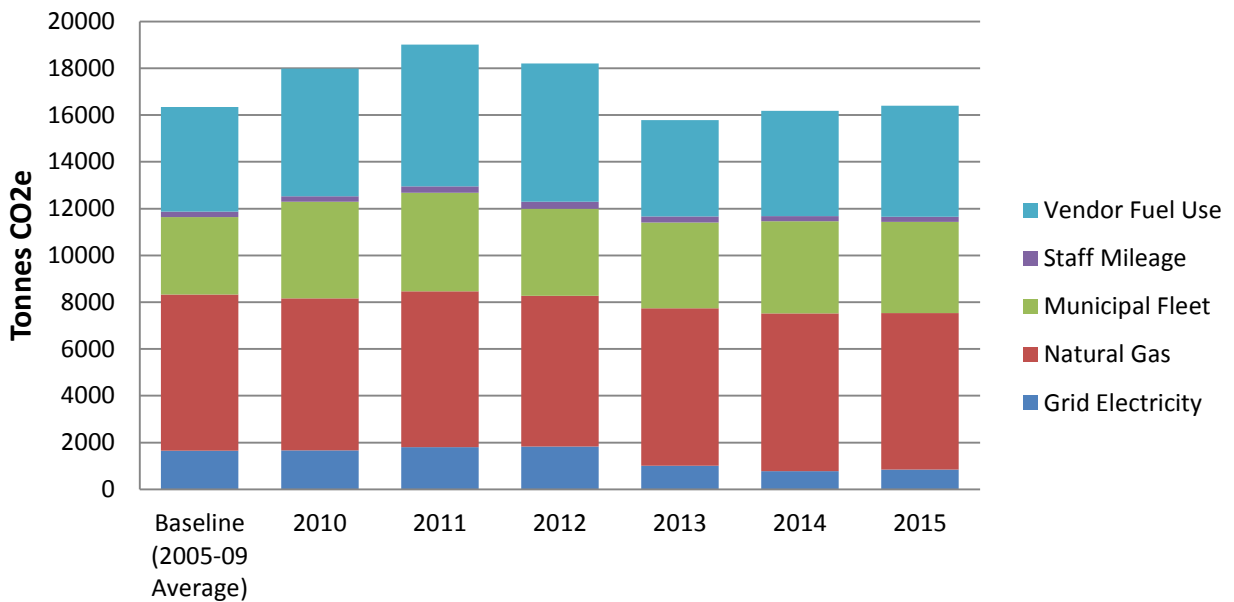
Figure 1 below shows a breakdown of 2015 GHG emissions by source, with 41% of City emissions coming from natural gas used to heat City buildings particularly pools, 5% from electricity, 24% from municipal fleet, 29% from the fuels used by the City’s in-scope vendors, and 1% from mileage claimed for staff travel.

Fig 1: 2015 GHG Emissions by Source



In 2015, corporate GHG emissions were 16,400 tCO₂e, or tonnes of carbon dioxide equivalent. As shown in Figure 2 below, this represents an increase of 1.4% from 2014 and a negligible change from the baseline (a 2005-2009 average).

Fig 2: Corporate GHG Emission Trend



Emissions from City facilities (natural gas and electricity usage) in 2015 were 7,528 tonnes CO₂e, which remains the same as 2014 and represents a 10% decrease from the baseline. The downward trend in absolute emissions from City facilities is a significant achievement given the number of new facilities and building expansions that have taken place to accommodate the growing population in recent years. An analysis of facility GHG emissions per square foot has shown a 33% reduction from the baseline, and a 9% reduction from 2014, illustrating the significant improvements in building performance over time.

Emissions from the City fleet in 2015 were 3,904 tonnes CO₂e, a slight year to year decrease from 2014 but an increase of 18% from the baseline –reflecting the growth of the fleet. While absolute emissions are increasing due to growth, efforts to improve efficiencies through the adoption of electric and compressed natural gas (CNG) vehicles have shown a 9% reduction in tCO₂e/KM since 2013, illustrating the increased efficiency of the City's fleet vehicles overall.

Total emissions from City contracted services in 2015 were 4,753 tonnes, representing 29% of the City's carbon footprint and a 6% increase from 2014. The main source of these contracted, or vendor emissions, is the waste management contract which generated 3,675 tonnes CO₂e or 77% of all vendor emissions. The increase in vendor emissions in recent years can largely be attributed to growth in the City's residential curbside customer base (now including multi-family buildings) and an increase in the amount of organic waste collected.

The opening of the new biofuel facility in 2017 and integration of the resulting renewable natural gas into the City's contracted waste collection fleet, City fleet vehicles, and facility heating systems is expected to significantly reduce the City's carbon footprint and meet the Corporate Emissions Action Plan emissions reduction goal of 20% by 2020.

Carbon Neutral Status 2015

The Survey attached in Appendix "I" outlines the 2015 corporate emissions total, and identifies projects that have provided allowable GHG reductions against the corporate footprint. In this case, the City is receiving allowable GHG reductions based on the City's portion of carbon credits from the Vancouver Landfill (VLF) Gas Capture Upgrade project, as well as the City's collection of yard waste.

These calculations indicate that the City's 2015 footprint of 16,400 tonnes CO₂e is reduced completely, leaving an emissions balance of -444 tonnes for the 2015 reporting year and therefore reaching carbon neutral status. The City's biofuel facility project includes provision to use a portion of the approved carbon credits towards corporate carbon neutrality each year, with the remainder of the credits being sold. Thus, the expectation is that the City will continue to claim carbon neutrality over the coming years.

By completing the Survey and making it public through this Corporate Report, the City is fulfilling the annual CARIP grant requirement to report publicly on the City's progress toward the City's climate action goals. The Survey is to be made public on or before June 1, 2016.

SUSTAINABILITY CONSIDERATIONS

The City continues to focus on sustainability initiatives that assist in achieving the goals of the City's Sustainability Charter. Implementation of the actions in the Sustainability Charter will advance the City towards the sustainability vision for the City. The Corporate Emissions Action Plan (CEAP), the Community Climate Action Strategy (particularly the Community Energy & Emissions Plan), and the commitments under BC's Climate Action Charter address the following actions that are identified in the Sustainability Charter:

- EC 8: Energy Security;
- EC 16: Increased Transit and Transportation to Support a Sustainable Economy;
- EN 1: Energy Efficiency;
- EN 2: Waste Reduction;
- EN 3: Vehicle Fleet Programs;
- EN 4: Employee Trip Reduction Program;
- EN 5: Green Procurement Policies and Practices;
- EN 9: Sustainable Land Use Planning and Development Practices;
- EN 10: Integrated Community Energy Master Plans; and
- EN 11: Commitment to the Climate Change Action Plan.

CONCLUSION

The Surrey Sustainability Charter sets out a vision of sustainability for the City of Surrey and acts as an overarching policy document for decision-making. The City continues to implement the Corporate Emissions Action Plan to meet the ambitious corporate GHG reduction target of 20% by the year 2020.

The City's 2015 corporate carbon footprint of 16,400 t CO₂e, less allowable GHG emissions calculations under the Carbon Neutral Local Government framework, leads to achievement of carbon neutral status for 2015. Providing this public report on the City's climate action progress supports the City's CARIP grant application and the related commitments under the Carbon Neutral Framework.

Original signed by
Jean Lamontagne
General Manager,
Planning & Development

Original signed by
Anna Mathewson, MCIP RPP
Sustainability Manager

Appendix "1" – 2015 CARIP Climate Action/Carbon Neutral Progress Survey

AM:ss

Supporting Template

For the *2015 CARIP Climate Action/Carbon Neutral Progress Survey*

This year’s CARIP reporting process consists of a single online survey – the *2015 CARIP Climate Action/Carbon Neutral Progress Survey* – that combines the two surveys from last year into one. The 2015 survey has been simplified to make reporting easier.

Local governments are required to submit the *2015 CARIP Climate Action/Carbon Neutral Progress Survey* on or before June 1, 2016.

Local governments are also required to publicly report the information submitted in the *2015 CARIP Climate Action/Carbon Neutral Progress Survey*. There are three ways a local government can report to the public, including using:

- the report generated by the *2015 CARIP Climate Action/Carbon Neutral Progress Survey* (*FluidSurveys™* software),
- a report based on the populated supporting template provided to local governments, or,
- a report in another format that contains the information submitted in the *2015 CARIP Climate Action/Carbon Neutral Progress Survey*.

In response to local government input, this supporting template has been created to assist with collecting information for the *2015 CARIP Climate Action/Carbon Neutral Progress Survey*, and follows the same structure.

Responses entered into the template can be cut and pasted into the survey. The survey asks for up to five actions in each category, and there is a place in the survey to report additional actions if desired. In the template, simply add more lines to the tables to report more than five actions.

Use of the template is **optional**. Local governments may choose to edit the populated template and use it for their public report, as an alternative to the report generated by the *2015 CARIP Climate Action/Carbon Neutral Progress Survey*.

Further information on CARIP can be found on the [Ministry of Community Sport and Cultural Development’s website](#).

Climate Action Revenue Incentive (CARIP) Public Report for 2015

Local Government: City of Surrey

Report Submitted by:

Name: Anna Mathewson

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Optional box for image

Date:

The [insert Local Government here] has completed the 2015 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2015 and proposed for 2016 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG) and reports on progress towards achieving carbon neutrality. There is also an opportunity to report on climate adaptation actions.

2015 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 2015	
	West Clayton Neighbourhood Concept Plan (NCP) approved as a complete and compact community with policy to encourage energy efficient buildings.
	Extensive stakeholder and public engagement on the development of Surrey’s Sustainability Charter 2.0, the City of Surrey’s overarching policy document.
	Continued implementation of the Community Climate Action Strategy, which includes actions from both the Climate Adaptation Strategy and the Community Energy and Emissions Plan.
	Sustainable Development Checklist updated to reflect new standards and best practices.
	Initiation of “EcoNewton” initiative to support industrial sustainability.
Community-Wide Actions Proposed for 2016	
	Sustainability Charter 2.0 to be approved by Council, and implementation launched through alignment with City decision-making and engagement with stakeholders and the public.
	Ongoing updates to Surrey’s Sustainable Development Checklist.
	Continue work on “EcoNewton” initiative to connect industries and enhance industrial sustainability practices.
	Employ new Energy and GHG Inventory Tool (Trident) to better manage, forecast, and track community wide GHG emissions and impact of City policies and projects.

Corporate Actions Taken in 2015	
	New objectives and key strategies identified for corporate sustainability as part of the development of Surrey’s Sustainability Charter 2.0.
	Continued implementation of the Corporate Emissions Action Plan, working toward achievement of 20% GHG reduction goals by 2020.
	Employed use of new GHG Inventory tool (Trident) to track and analyze energy and emission trends from City operations through BC Hydro pilot project.
Corporate Actions Proposed for 2016	
	Implement Corporate Sustainability objectives as defined by renewed Sustainability Charter 2.0.

Snapshot Questions	
What GHG reduction targets are included in your local government's Official Community Plan or Regional Growth Strategy?	33% per capita reduction from 2007 levels by 2020 80% per capita reduction from 2007 levels by 2050
Are you familiar with the Community Energy and Emission Inventory (CEEI)?	Yes
Does your local government use the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes
Which of the following does your local government use to guide climate action implementation? <ul style="list-style-type: none"> • Community Energy and Emissions (CEE) Plan • Climate Action Plan • Integrated Community Sustainability Plan • Official Community Plan (OCP) • Regional Growth Strategy (RGS) • Other: Climate Adaptation Strategy 	Yes Yes Yes Yes Yes Yes
Does your local government have a climate action reserve fund?	Yes
Does your local government have a Corporate Climate Action Plan?	Yes

2015 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 2015	
	Density bonus approved to encourage green buildings in West Clayton neighbourhood.
	Empower Me program delivered to educate recent immigrants on energy efficient behaviour.
	Energy retrofit program delivered to rental apartment buildings.
	Project Green Suites, behaviour change program delivered to strata residential buildings.
Community-Wide Actions Proposed for 2016	
	Introduction of passive building design guidelines.
	Building Energy Specialist was hired early in 2016 to support development compliance with energy component of BC Building Code.

Corporate Actions Taken in 2015	
	Energy benchmarking of corporate facilities.
	Opening of new LEED Silver Operations Centre (pending certification).
	Participated in BC Hydro Demand Response Pilot project to minimize energy demand in two facilities at peak times of day.
	Continuation of BC Hydro funded Workplace Conservation Awareness Program to reduce energy consumption through staff behaviour.
Corporate Actions Proposed for 2016	
	Update benchmarking for corporate buildings.
	Five year project to replace all 28,000 roadway lighting fixtures with LED technology was approved in early 2016.
	Participate in BC Hydro/ Fortis BC New Construction Incentive Program to build two highly energy efficient arena facilities.
	Attain recognition for high performance building (Surrey City Hall) from BC Hydro Energy Conservation Program.

2015 ENERGY GENERATION ACTIONS

Energy Generation

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 2015	
	Designed and built new District Energy infrastructure to serve new development in the Surrey Central, King George and Gateway areas, including distribution piping, energy centre and energy transfer stations within the buildings.
	Operation of the City's district energy utility commenced, with the first private customers connected.
	Developed a strategy to purchase renewable natural gas from the Surrey Biofuel Processing Facility.
Community-Wide Actions Proposed for 2016	
	Continue progress toward the design and construction of a permanent district energy plant on the West Village Park site.

Corporate Actions Taken in 2015	
	Commenced construction of biofuel facility to process organic wastes into renewable natural gas.
	Installed a hydro-powered generator on one of Surrey’s pressure reducing valve (PRV) stations. The unit provides energy by utilizing the pressure drop across the PRV and eliminates the need to install a hydro service connection. The project will supply several hundred watts of power; enough to run flow meters, pressure gauges and some sump pumps.
Corporate Actions Proposed for 2016	
	Complete construction and commence commissioning of the City Biofuel Processing Facility.

Snapshot Questions	
Is your local government developing, or constructing a district energy project?	Yes
Is your local government operating a district energy system?	Yes
Is your local government developing or constructing a renewable energy project?	Yes
Is your local government operating a renewable energy project?	Yes
Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit (insert link here)?	No

2015 GREENSPACE/ NATURAL RESOURCE PROTECTION 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 2015	
	Implementation of the Surrey Biodiversity Conservation Strategy, including 42 acres of strategic environmental land acquisition, and species at risk management.

	The City-run Surrey Nature Centre continued to offer programs, events and day camps to increase appreciation and stewardship of the environment. The 18 th annual Environmental Extravaganza offered free environmental education programs across the City from Earth Day through World Ocean Day in partnership with community groups. Two ecosystem enhancement programs, Surrey's Natural Areas Partnership (SNAP) and the Salmon Habitat Restoration Program (SHaRP), employed post-secondary and high school students to address riparian and natural areas habitat restoration and education.
	6,240 m ² of parkland (mowed grass or degraded land) were converted to natural areas, 80,000 m ² of invasive plants were removed from natural areas, 8,382 native shrubs and trees were planted in natural areas, and 6,500+ caliper-size shade trees were planted on streets and in parks.
	Development of Draft Streamside Protection Regulation through a combination of Zoning Bylaw (General Provisions) and draft Sensitive Ecosystem Development Permit Area Guidelines (OCP Bylaw)
Community-Wide Actions Proposed for 2016	
	Finalize Streamside Protection Regulation and Sensitive Ecosystem Development Permit Area, currently earmarked in the OCP.

Corporate Actions Taken in 2015	
	The new LEED Silver Operations Centre features a green roof and water efficient landscaping.
	Development of the Shade Tree Management Plan, which identifies climate adaptation and mitigation as key drivers of public property shade tree management practices.
Corporate Actions Proposed for 2016	
	Approval and implementation of the Shade Tree Management Plan.

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

2015 SOLID WASTE ACTIONS

Solid Waste

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 2015	
	Commenced construction of biofuel facility to process organic wastes into renewable natural gas.
	Initiated an Environmental Education Program in Surrey classrooms that focuses on waste, water and energy reductions. The Rethink Waste component of the program was targeted to grade 2, 5, 9 and Adult ESL students and delivered to 285 classrooms throughout the 2015/16 school year.
	Waste collection services continued to expand as the Province-wide organics landfill ban came into effect.
	Project Green Suites, behaviour change program delivered to strata residential buildings
Community-Wide Actions Proposed for 2016	

Corporate Actions Taken in 2015	
	Community and Recreation Services initiated a program to recycle staff uniforms and apparel that are no longer worn on the job through local company De-brand, which modifies and donates or recycles items.
	City of Surrey's Print Services earned Agfa Greenworks certification for switching to a chemical-free laser plate maker, eliminating the need for ink cartridges, chemical solvents and other solutions. They also replaced petroleum-based inks with soy-based inks.
Corporate Actions Proposed for 2016	

Snapshot Questions

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

2015 TRANSPORTATION ACTIONS

Transportation

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 2015	
	Progress toward the planning and design of a light rapid transit system across three arterials in Surrey.
	Improved active transportation infrastructure by adding 27km of cycling network and 30 km of new sidewalks
	Transit improvements included 15 new transit shelters, 20 upgrades to existing bus stops to improve accessibility and pedestrian connections, and completion of transit only and bus queue jumper lanes along a major arterial
	Actively supported and promoted the “yes” vote in the Metro Vancouver Transportation Plebiscite
	Supported the Province-wide Emotive campaign to promote public awareness and interest in electric vehicles.
Community-Wide Actions Proposed for 2016	
	Continue adding to Surrey’s active transportation network.

Corporate Actions Taken in 2015	
	28 new CNG fuelled vehicles were introduced into the City’s fleet.
	Consideration for the development of a new CNG fuelling facility in the Surrey Works Yard.
Corporate Actions Proposed for 2016	
	Explore pilot project to convert diesel fleet vehicles to be dual-fuel and compatible with CNG.
	Four new electric vehicles (EVs) are planned to be added to the City’s fleet.
	Continue planning work toward a new CNG fuelling facility in the Surrey Works Yard.

Snapshot Questions	
Does your local government have policies, plans or programs to support: <ul style="list-style-type: none"> • Walking • Cycling • Transit Use • Electric Vehicle Use • Other 	Yes Yes Yes Yes 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

2015 WATER AND WASTEWATER ACTIONS

Water and Wastewater

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 2015	
	Initiated an Environmental Education Program in Surrey classrooms that focuses on waste, water and energy reductions. The Water Wise component of the program was targeted to grade 4 and 10 students and delivered to 180 classrooms throughout the 2015/16 school year.
	ISMPs?
	Project Green Suites, behaviour change program delivered to strata residential buildings
	Expanded use of water bags to water newly planted public property trees
Community-Wide Actions Proposed for 2016	
	Completed update and retrofit to weather stations early in 2016 for better performance of the City's 83 centrally controlled, automated irrigation systems which assist in conserving water to the City's irrigated sports fields.

Corporate Actions Taken in 2015

	Three new facilities, the Operations Centre, Guildford Aquatic Centre and Grandview Heights Aquatic Centre, incorporate water saving features such as no-touch automatic shut-off faucets and dedicated filtered water taps.
Corporate Actions Proposed for 2016	

Snapshot Questions	
Does your local government have water conservation policies, plans or programs?	Yes/No

2015 CLIMATE CHANGE ADAPTATION ACTIONS

Climate Change Adaptation

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.

Community-Wide Actions Taken in 2015	
	Continued participation in the development of a Regional Flood Management Strategy, led by the Fraser Basin Council.
	Completion of phase two of Surrey’s flood risk analysis, outlining critical infrastructure vulnerabilities, looking at potential impacts from 2200 sea level rise scenarios, examining the sensitivities of the lowlands to potential precipitation changes, and refining floodplain extents under dyke and dam breach scenarios.
	Participation in Metro Vancouver’s Urban Forest Adaptation Guidelines project that aims to develop an adaptation framework for managing urban trees and establish design guidelines at a regional level.
Community-Wide Actions Proposed for 2016	
	Development of Surrey’s Coastal Flood Protection Strategy approved by Council early in 2016, with the three year engagement process to be launched by mid-2016.

Corporate Actions Taken in 2015	
	Worked on the integration of Climate Change Adaptation into City’s new Risk Management Platform.
	Preliminary designs complete for Nicomekl & Serpentine sea dam replacement, and Nico Wynd dyke upgrade taking SLR into consideration through design process.
	Rainfall study completed looking at downscaling climate models to see potential precipitation changes.
	Shade Tree Management Plan under development, with focus on adaptation as a management principle.
Corporate Actions Proposed for 2016	
	Launch City’s new Risk Management Platform, with integration of Climate Change Adaptation Risks, actions and monitoring
	Complete second rainfall study looking at impacts of precipitation changes on the upland areas of Surrey and how servicing standards may need to be revised.
	Adoption and implementation of the Shade Tree Management Plan.

Snapshot Questions	
Are you aware of the Plan2Adapt guidance page on the BC Climate Action Toolkit ?	Yes/No
Are you aware of the <i>Preparing for Climate Change, An Implementation Guide for Local Governments in BC</i> on the BC Climate Action Toolkit ?	Yes/No
Have you visited the climate change adaptation guidance page on the BC Climate Action Toolkit ?	Yes/No

2015 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 2015	
	Council and staff contributed to Provincial initiatives including participation in the Climate Leadership Team and the Energy Efficiency Working Group.
Community-Wide Actions Proposed for 2016	

Corporate Actions Taken in 2015	
Corporate Actions Proposed for 2016	

INNOVATION AND PEER-TO-PEER LEARNING

Innovation

This section provides the opportunity to showcase an innovative Corporate and/or Community-Wide reduction or adaptation activity that your local government has undertaken and that has had a significant impact or has the potential to have a significant impact. Projects included here may be featured as success stories on the B.C. Climate Action Toolkit and/or shared with other local governments to inspire further climate action. Please add links to additional information where possible.

Community-Wide Innovative Action
The City has begun taking a more integrative approach to water, waste and energy management in its programs and engagement, as evidenced by the new environmental education program in schools, and the emerging EcoNewton Project.

In 2015, the City launched a new curriculum-linked [environmental education program](#) that delivered interactive workshops to 586 classrooms in the 2015/16 school year. The workshops are targeted to grades 2 through 10, as well as newcomers to Canada in Adult ESL classes. Students make connections to global and social issues, and explore exciting new trends and technologies in sustainability.

EcoNewton is an emerging initiative that aims to enhance energy, water and waste reduction efforts within the industrial sector in West Newton. By ascertaining existing financing mechanisms, identifying low payback business cases, addressing capacity constraints, and linking businesses together through a facilitated network, the project aims to facilitate improved water, waste and energy performance, and ultimately a move toward collective investments in sustainability and industrial symbiosis.

Corporate Innovative Action

The City of Surrey continues to replace and add new vehicles to the fleet where operating on Compressed Natural Gas (CNG) or Electric (EV) vehicles are suitable for the operation.

In 2015 Fleet ordered 28 CNG vehicles to replace existing diesel and gasoline trucks:

- 18 CNG light trucks
- 8 medium duty CNG trucks
- 2 medium duty CNG dual stream garbage trucks

So far for 2016 Fleet has placed orders for:

- 4 EV cars
- 4 CNG cargo vans
- 4 CNG medium duty trucks

There are approximately 10 additional light trucks and 4 medium duty trucks identified for replacement with CNG.

Fleet Operations is currently working on a proposal to replace our aging CNG fuel dispenser at the Works Yard to cope with the growing demand, as the CNG fleet continues to grow. The proposal will also look at the possibility of selling CNG to third party users. Once the proposal is complete, funding and approval will be required.

Fleet Operations is also looking into a possible trial with True North Energy, where one of the City's heavy duty dump trucks will be converted to run on a mix of diesel and CNG. Discussions are still in the early stages, and the City will need to look at all factors to ensure suitability before embarking on this trial.

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 appropriate box below.

Programs and Funding
BC Hydro Fortis BC Vancity Metro Vancouver QUEST Community Energy Association Urban Sustainability Directors Network Fraser Basin Council

2015 CARBON NEUTRAL REPORTING

Reporting Emissions

Did you measure your local government's corporate GHG emissions in 2015? (Yes/No)	
	Yes
If your local government measured 2015 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:	11,647
If your local government measured 2015 corporate GHG emissions, please report the number of corporate GHG emissions (in tonnes of carbon dioxide equivalent) from <u>contracted</u> services:	4,753
TOTAL A: CORPORATE GHG EMISSIONS FOR 2015	16,400 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 Option 1 Projects (GCC-supported)
- undertake Option 2 Projects (alternative) community GHG emissions reduction projects that meet project eligibility requirements
- purchase carbon offsets from a credible offset provider

If applicable, please report the 2015 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	10,330
Low Emission Vehicles	
Avoided Forest Conversion	
TOTAL B: REDUCTIONS FROM OPTION 1 PROJECTS FOR 2015	10,330 tCO2e

If applicable, please report the names and 2015 GHG emissions reductions (in tonnes of carbon dioxide equivalent (tCO2e)) being claimed from Option 2 GHG Reduction Projects:

OPTION 2 PROJECT NAME	REDUCTIONS
Vancouver Landfill Methane Gas Capture (Metro Vancouver project)	6,514
TOTAL C: REDUCTIONS FROM OPTION 2 PROJECTS FOR 2015	6,514 tCO2e

If applicable, please report the number of offsets purchased (in tonnes of carbon dioxide equivalent (tCO2e)) from an offset provider for the 2015 reporting year:

(NOTE: DO NOT INCLUDE ANY FUNDS THAT MAY BE SET ASIDE IN A CLIMATE ACTION RESERVE FUND)

OFFSET PROVIDER	REDUCTIONS
TOTAL D: OFFSETS PURCHASED FOR 2015	0 tCO2e

TOTAL REDUCTION AND OFFSETS FOR 2015 (Total B+C+D) = 16,844 tCO2e

Corporate GHG Emissions Balance for 2015

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 2015=16,400 – 16,844 (A –(B+C+D)) = -444 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. Recognition is provided on an annual basis to local governments who demonstrate progress on their Charter commitments, according to the following:

Level 1 - Progress on Charter Commitments: for local governments who demonstrate progress on fulfilling one or more of their Charter commitments

Level 2 - Measurement: for local governments 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 - Achievement of Carbon Neutrality: for local governments who achieve carbon neutrality in the reporting year.

Based on your local government's 2014 CARIP Public Report, please check the GCC Climate Action Recognition Program level that best applies:

<input type="checkbox"/>	Level 1 - Progress on Charter Commitments	
<input type="checkbox"/>	Level 2 - Measurement	
<input checked="" type="checkbox"/>	Level 3 - Achievement of Carbon Neutrality	
<input type="checkbox"/>	Not Sure	