

Climate Action Revenue Incentive Program (CARIP) Public Report

Climate Action Revenue Incentive (CARIP) Public Report for YEAR 2014

City of Richmond

Metro Vancouver



Report Submitted by

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The City of Richmond has completed the 2014 Climate Action Revenue Incentive Program (CARIP) Public Report as required by the Province of BC. The CARIP report summarizes actions taken in 2014 and proposed for 2015 to reduce corporate and community-wide energy consumption and greenhouse gas emissions (GHG), as well as general sustainability related initiatives.

March 5, 2015

General Information

Name of Local Government	City of Richmond
Member of Regional District (RD)	Metro Vancouver
Regional Growth Strategy (RGS) in region	Yes
Population	207,000

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1. GENERAL REPORT INFORMATION

This 2014 Climate Action Revenue Incentive Program (CARIP) Public Report documents the actions that the City of Richmond has taken corporately and in the community to support the reduction of greenhouse gas (GHG) emissions and energy use, as well as other sustainability related initiatives. The actions are separated into seven main categories; Broad Planning, Buildings, Energy Generation, Greenspace, Solid Waste, Transportation and Water and Wastewater. There are also is Other Climate Actions and Innovation categories, which the City has inputted action items. The categories are further divided into corporate and community related actions, with six required reporting areas.

This report encompasses a majority of the action items that the City is involved in to support GHG and energy reduction, but does not cover all sustainability related initiatives that the City conducts or supports. The report represents a “snapshot” of City activities over the past year, and proposed actions for 2015.

2. BROAD PLANNING

Broad Planning refers to the high level, strategic planning that sets the stage for GHG reductions. Land use planning that focuses on Smart Growth principles (compact, complete, connected and centred) plays an especially important role in energy and GHG reduction. Below are the City of Richmond’s responses to Provincial inquiries regarding planning best practices, and summary of initiatives conducted in 2014 and/or planned in 2015.

Since initially establishing OCP targets, policies, and actions for the reduction of greenhouse gas (GHG) emissions, as required by the Local Government Act, has your local government updated those targets, policies and actions?	No
Does your local government use the Community Energy and Emissions Inventory (CEEI) to measure progress?	Yes
Has your local government established Development Permit Areas (DPAs) for climate action (i.e. energy conservation, water conservation and/or GHG emission reduction)?	No

2.1. Community Actions

Feasibility Studies, Research, Analysis	Actions taken in 2014
	Actions proposed for 2015 <ul style="list-style-type: none"> • When the City reviews the City Centre Area Plan (CCAP) building height requirements, in association with YVR's Airport Zoning Regulations (AZR), consideration will be given to maximizing energy efficiency through increased density. • Review the possibility of requiring electrical vehicle charging stations at non-residential locations throughout the City.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Adopted the Hamilton Area Plan which promotes compact, sustainable, and energy efficient communities • Added policies that require townhouses to be more energy efficient (achieve 82 or higher on Energuide rating system) and to include the potential to integrate renewable energy systems (e.g. solar thermal ready).
	Actions proposed in 2015 <ul style="list-style-type: none"> • Revise the Steveston Area Plan and include measures that promote a more compact, sustainable, energy efficient, and pedestrian friendly built environment. • Revise arterial road and coach house policies to encourage more energy efficient buildings and more compact communities.
Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued to implement the OCP and City Centre Area Plan (CCAP) which directs the majority of Richmond's urban growth to the City Centre and near major transit stations. • Continued to advance District Energy Utility ready and connected development in the Alexandria neighbourhood of the West Cambie Area. • Continue to implement CCAP requirement that all rezoning applications with development over 2,000 m2 meet at a minimum LEED silver standards.
	Actions proposed in 2015 <ul style="list-style-type: none"> • Continue to implement OCP and CCAP policies as new development applications are processed. • Prepare and implement a policy to establish higher a minimum energy standard for the City Centre.

Community Education, Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> Met regularly with Richmond’s Small Home Builders and Urban Development Institute when preparing new community building related sustainability initiatives.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue to meet with Richmond’s Small Home Builders and Urban Development Institute when preparing new community building related sustainability initiatives.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> Policy Planning Department staff reviewed and updated the OCP and various Area Plans; also, they are the staff liaison to Richmond’s Advisory Committee on the Environment.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Policy Planning Department staff will periodically, review and update the OCP and various Area Plans, and will continue to be the staff liaison to Richmond’s Advisory Committee on the Environment.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> Municipal Operational Funding Worked with Sustainability staff to identify grant opportunities to encourage community sustainability initiatives, and received funding for the further development of a community energy assessment modeling tool.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Municipal Operational Funding Continue to work with Sustainability staff to identify grant opportunities to encourage community sustainability initiatives.

3. BUILDINGS

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 viewed over the long term. Below is the City of Richmond’s response to the Provincial inquiry regarding building best practices, and summary of initiatives conducted in 2014 and/or planned in 2015.

Does your local government have green building/construction policies, plans or programs?	Yes
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3.1. Corporate Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> Completed major equipment replacement and upgrade at Richmond Ice Centre. Completed lighting retrofits at Minoru Tennis courts. Replaced gas fired roof-top units with efficient electric heat pumps, at South Arm Community Centre. Replaced and upgraded building automation systems at West Richmond and South Arm Community Centres.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Complete energy efficiency upgrades at Watermania Aquatic Centre, Steveston Community Centre, and other recreational facilities.
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> Completed lighting audits at the Richmond Courthouse and Britannia Shipyards. Completed energy conservation assessments at four separate recreational facilities, to determine energy management capital projects for 2015.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Complete the energy conservation measures study for the heat recovery optimization project at Watermania aquatic centre. Complete 5-7 energy assessments at City facilities to establish potential capital projects for 2016.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> Adopted the revised City's Corporate High Performance Building Policy, which include new targets for energy efficiency and sustainable corporate buildings. Further developed separate policy initiatives related to the City's Corporate High Performance Building Policy, including the Sustainable Operations and Maintenance Guideline, Lighting Standards Guideline, and Building Automation System Integration Guideline.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Complete the City's Corporate Sustainable Operations and Maintenance Guideline, Lighting Standards Guideline, and Building Automation System Integration Guideline.

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> Continued to work towards achieving key targets of the City's High Performance Building Policy, during design development for planned new Minoru Park facilities, with focus on energy efficiency, reduced resource use, and environmental sustainability.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue to work towards achieving key targets in the City's High Performance Building Policy for new and existing facilities, with focus on energy efficiency, reduced resource use, and environmental sustainability.
Employee Training, Awareness	Actions taken in 2014
	<ul style="list-style-type: none"> Completed Year 3 of a workplace conservation awareness program, that looks to promote corporate and community energy efficiency and sustainability in general through engagement and education.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Complete Year 4 of a workplace conservation awareness program.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> Approximately 1.5 full time staff are directly involved in Corporate Energy Management activities, and increasing corporate energy efficiency in City buildings. Participated in BC Hydro Corporate Energy Manager forums as part of Power Smart program.
	Actions proposed in 2015
	<ul style="list-style-type: none"> No anticipated change to staffing levels. Continue to participate in BC Hydro Corporate Energy Manager forums as part of Power Smart program.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> Municipal Revolving Enterprise Funding – for capital projects Municipal Operational Funding External Incentives Grant Funding
	Actions proposed in 2015
	<ul style="list-style-type: none"> Municipal Revolving Enterprise Funding – for capital projects Municipal Operational Funding External Incentives Grant Funding

3.2. Community Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> Completed connections for approximately 800 residential units to the Alexandra District Energy Utility (DEU) renewable energy centre, to provide heating and cooling.
	Actions proposed in 2015
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> Facilitated the completion of Phase 1 of Multi-Unit Residential Building Deep Retrofit study, to identify significant energy upgrade opportunities in multi-unit building types.
	Actions proposed in 2015
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> Adopted the Community Energy and Emissions Plan. Amended the OCP to increase townhouse energy efficiency and renewable energy integration opportunities by requiring that townhouse rezoning achieve EnerGuide 82. Executed agreement with utility partner and develop implementation plan for the design, construction, financing, and operation of the Oval Village DEU.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue to further develop and implement action items identified in the Community Energy and Emissions Plan.

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued to enforce Solar Ready requirements for new single family residential buildings, which ensure new homes can accommodate future solar thermal installations. • Continued to implement DEU ready development in the Alexandra and City Centre neighbourhoods. • Secured commitments from new development in the City Centre to achieve LEED Silver, and townhome developments city-wide to build to EnerGuide 82 standard.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to implement building energy policies. • Continue to implement District Energy Utility (DEU) ready development in the Alexandra and City Centre neighbourhoods.
Community Education and Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> • Launched the Building Energy Challenge, a program to support increased energy efficiency in commercial, institutional and multifamily buildings through incentives for energy management training, “energy coaching” services, and support for building energy benchmarking. • Conducted an outreach program to promote home and building energy upgrades and energy utility incentive programs, through the implementation of the Community Energy Save Richmond initiative.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to implement the Building Energy Challenge program. • Continue to promote energy incentive programs as part of the Community Energy Save Richmond initiative. • Explore the potential to implement an energy saving/incentive program for multifamily residential buildings.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Approximately two full time staff are directly involved in Community Energy Management and facilitating community energy efficiency improvements. • Participated in BC Hydro Community Energy Manager forums as part of Sustainable Community program.

Committees, Staffing	Actions proposed in 2015
	<ul style="list-style-type: none"> • No change expected to City Community Energy Management staffing levels. • Continue to participate in BC Hydro Community Energy Manager forums as part of Sustainable Community program.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding • Carbon Tax Rebate Funding • External Incentives Funding • Funding for Building Energy Challenge secured from BC Hydro Sustainable Communities Program “Implementation Offer” and through Fortis BC.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding • Carbon Tax Rebate Funding • External Incentives Funding • Apply for BC Hydro implementation offer, and other funding sources to further support Community Energy Management initiatives in 2015

4. 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, 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. Below are the City of Richmond’s responses to the Provincial inquiries regarding energy generation, and summary of initiatives conducted in 2014 and/or planned in 2015.

Has your local government undertaken district energy projects in 2014?	Yes
Has your local government undertaken renewable energy projects 2014?	Yes
Are you aware of the integrated resource recovery (IRR) guidance page on the BC Climate Action Toolkit?	Yes

4.1. Corporate Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> • Completed the installation of a heat recovery system at the main City of Richmond ice arena, to pre-heat ice re-surfacer flood water, which will help to reduce natural gas use by approximately 20%. • Completed the optimization work for the solar thermal hot water system at South Arm Pool, to improve the overall efficiency and system operation, and reduce natural gas use.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Complete the planned heat recovery optimization work at Watermania, to reduce natural gas use and improve the energy use efficiency of the system. • Connect the City’s new Fire Hall No.3 development with the Alexandra renewable energy centre for heating and cooling purposes.
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Undertook an energy strategy and options evaluation study for the planned new aquatic and institutional facilities in the Minoru Precinct area.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Complete feasibility studies for the new Fire Hall No.1 and Minoru Complex building, which will assess further measures to reduce energy use, and incorporate renewable energy systems into the buildings.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Adopted the City’s Corporate High Performance Building Policy, which includes a target for corporate buildings to be built to “net zero” energy standards by 2030.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to implement corporate policy initiatives that increase renewable energy integration at corporate facilities.
Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued to target renewable energy integration, a key component of the City’s High Performance Building Policy, during development design for planned new Minoru Park facilities.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to target renewable energy integration, a key component of the City’s High Performance Building Policy, during design development for new corporate facilities.

Employee Training, Awareness	Actions taken in 2014
	<ul style="list-style-type: none"> • Completed Year 3 of a workplace conservation awareness program, that looks to promote corporate and community energy efficiency and sustainability in general through engagement and education.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Complete Year 4 of a workplace conservation awareness program.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Approximately 2.0 full time staff are directly involved in Corporate Energy generation activities, and increasing corporate renewable energy systems in the City. • Participated in BC Hydro Corporate Energy Manager forums as part of Power Smart program.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • No anticipated change to staffing levels. • Continue to participate in BC Hydro Corporate Energy Manager forums as part of Power Smart program.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Revolving Enterprise Funding – for capital projects • Municipal Operational Funding • External Incentives • Grant Funding
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Revolving Enterprise Funding – for capital projects • Municipal Operational Funding • External Incentives • Grant Funding

4.2. Community Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> Completed connections and servicing to a third building for heating and cooling purposes from the existing renewable energy Alexandra DEU. This new connection increases the total number of residential units being serviced by the DEU to 800 covering 750,000 ft² of floor area.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Implement Phase 1 of Oval Village DEU, which will include construction of interim energy centres, installing distribution piping system and energy transfer stations at new developments, and the connecting of approximately 1.0 million ft² of floor area to the new district energy system. Implement Phase 3 of the Alexandra DEU that will connect a further 1.63 million ft² of residential and commercial floor area for heating and cooling purposes to the renewable energy system. Phase 3 includes expanding the existing energy centre and increasing geo-exchange capacity; extending the distribution piping system; and installing energy transfer stations in developments.
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> Supported the pre-feasibility study of effluent heat recovery potential for Lulu Island Wastewater Treatment Plant. Completed a pre-feasibility study of the potential for a district energy node with renewable energy as part of the new Minoru Civic Precinct aquatic centre and community facilities.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Explore the potential development of a City Centre North District Energy centre.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> Completed the incorporation of the municipally owned Lulu Island Energy Company corporation, which will manage community district energy systems on behalf of the City of Richmond. Executed agreement with a utility partner and developed the implementation plan for the design, construction, financing, and operation of the Oval Village DEU. Continued to implement DEU ready development in the City Centre Area.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue to implement DEU ready development in the City Centre and West Cambie neighbourhood areas.

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> Established a service area bylaw for Oval Village DEU, mandating connection of new developments in the service area.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue to secure commitments that new buildings in City Centre and West Cambie are district energy utility ready.
Community Education and Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> Led tours of the City's district energy system for community members and elected officials. Engaged and communicated with DEU customers and developers concerning DEU developments and initiatives
	Actions proposed in 2015
	<ul style="list-style-type: none"> Continue DEU customer and public engagement.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> Participated in BC Hydro Community Energy Manager forums as part of Sustainable Community program. Worked with Metro Vancouver on the development of renewable energy generation from Gilbert Sewer Main Approximately 2.25 full time staff were directly involved in Community Energy generation activities, and increasing District Energy capacity in the City.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Participated in BC Hydro Community Energy Manager forums as part of Sustainable Community program. Full time staff involved in community energy generation activities will increase from 2.25 to 4.25.

Funding	Actions taken in 2014
	<ul style="list-style-type: none"> Continued to implement DEU infrastructure and developments using dedicated DEU operating funds and capital program, financed through ratepayer funds.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Apply for Federal/Provincial grant funding to support Alexandra and Oval Village DEU implementation. Continued partnership with the BC Hydro Sustainable Community program.

5. GREENSPACE

Greenspace refers to parks and greenways, boulevards, community forests, urban agriculture, riparian areas, gardens, recreation/school sites, and other green spaces, such as remediated brownfield/contaminated sites. Greenspaces support climate change mitigation (reducing emissions by absorbing and sequestering GHG) and adaptation (providing shade, cooling, deflecting strong wind, and improving air quality). Below are the City of Richmond responses to the Provincial inquiry regarding “greenspace” management in the City, and summary of community initiatives conducted in 2014 and/or planned in 2015.

Does your local government have urban forest policies, plans or programs?	Yes
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5.1. Community Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> Completed the 5 km long new pedestrian and biking Railway. Planted 1,120 new trees in City street right-of-ways and in parks. Constructed a new playground structure at Terra Nova Rural Park using sustainable materials that were sourced almost exclusively locally.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Develop 11.5 acres of new neighbourhood parks in the City Centre and Alexandra Neighbourhood, bringing park services to within walking distance of residents in these rapidly redeveloping high and medium density neighbourhoods. Plant approximately 1,265 new trees in City street right-of-ways and in parks.

Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Completed mapping and inventory of invasive knotweed on City dike • Initiated a physical treatment pilot project to research effective control methods for parrotfeather (M. Aquaticum) in City watercourses • Initiated the inventory and mapping of riparian and aquatic invasive plants species
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Implement Phase 1 of the Garden City Legacy Lands Landscape Plan including hydrogeological study and an ecosystems management plan to support bog conservation and agricultural uses. • Adopt and implement City wide Invasive Species Action Plan • Expand physical treatment trials to control parrotfeather (M. Aquaticum) in City watercourses • Complete the inventory and mapping of riparian and aquatic invasive plants species
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued work on the update and expansion of the Urban Forest Management Plan. • City endorsed the Garden City Lands Legacy Landscape Plan, which includes plans for a 136 acre park. The plan also features conservation of 70 acres of bog and the allotment of 50 acres to showcase sustainable agricultural practices. • Initiated the development of a City wide Invasive Species Action Plan • Adopted the Ecological Network Management Strategy (Phase 1), which lays out a framework to guide the management of the City’s ecological assets • Adopted the Bath Slough Revitalization Initiative, a pilot project of the Ecological Network Management Strategy.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Adopt and implement the Urban Forest Management Plan • Adopt and implement City wide Invasive Species Action Plan • Adopt and implement Ecological Network Management Strategy (Phase 2).

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Acquired three private properties to add to the City's park land as per the OCP including 2 properties adjacent to Sturgeon Bank and 1 property that will be developed into a greenway connection and ecological corridor.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue ongoing park land acquisition to meet the park provision standards of the OCP.
Community Education and Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> • Facilitated an Earth Day tree planting event with corporate and community volunteers. • Launched the Terra Nova Nature Preschool which employs a place-based approach to education that promotes respect for the environment, teaches ecological literacy, and develops environmental stewardship. • Developed and delivered school and public environmental awareness programs, primarily at the Richmond Nature Park and Terra Nova Rural Park. • Facilitated invasive species removal and environmental stewardship activities in City parks, in collaboration with Community Centres and Youth volunteers • Collaborated with the Richmond Wavers Guild to create baskets and art project from harvested invasive plants.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to deliver Earth Day tree planting event and expand to include invasive species removal with corporate and community volunteers. • Review and update of the Parks Departments community stewardship program – Partners For Beautification based on consultant review and recommendations that we anticipate will refocus the program towards greater environmental stewardship education. • Expand urban agriculture programs that encourage local, small scale, sustainable agricultural initiatives, including the expansion of the community garden program, incubator farm program and the establishment of a sustainable agriculture laboratory farm. • Plan and facilitate invasive species removal and environmental stewardship activities in City parks, in collaboration with Community Centres and Youth volunteers • Continue collaboration with the Richmond Wavers Guild to create baskets and art project from harvested invasive plants

Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Approximately 2.5 full time equivalent Parks staff work on Community Greenspace initiatives and outreach programs.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • No anticipated change to staffing levels.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding • Municipal Capital Project Funding • The City received \$449,000 in funding in 2014 for the Railway Greenway from the Provincial Bike BC Program.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding • Municipal Capital Project Funding • The City will receive \$472,899 in funding in 2015 for the Railway Greenway from TransLink. • \$150,000 dedicated fund to manage invasive plants species on City land.

6. 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. Below are the City of Richmond responses to the Provincial inquiries regarding solid waste management in the City, and summary of initiatives conducted in 2014 and/or planned in 2015.

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

6.1. Corporate Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> Continued to provide recycling services for City events.
	Actions proposed in 2015
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> Conducted in-house waste audits of City facilities.
	Actions proposed in 2015
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> Council adopted the Management of Waste and Recycling Materials from City Facilities Demolition and Construction Activities Policy, with the objective to achieve a diversion rate of 80% by weight for the demolition of City facilities, houses, new facility construction, and major facility renovations.
	Actions proposed in 2015
Policy Implementation	Actions taken in 2014
	Actions proposed in 2015
Employee Training, Awareness	Actions taken in 2014
	<ul style="list-style-type: none"> Delivered a waste reduction lunch time workshop for City staff, with support from the Recycling Council of BC.
	Actions proposed in 2015
	<ul style="list-style-type: none"> Further educate and inform City staff on the Corporate related waste reduction/diversion initiatives on-going at City facilities.

Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Environmental Programs staff consists of the following personnel; Manager of Environmental Programs (1), Supervisor of litter collection staff (1), litter collection employees (12), and sanitation and recycling administration employees (3).
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Staffing levels are anticipated to be maintained in 2015.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding

6.2. Community Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> • Expanded Recycling Depot services to include Styrofoam, plastic bags and overwrap through partnership with MMBC, and added used books, batteries, and cell phones as accepted material at the Recycling Depot. • Expanded the blue box and blue cart recycling programs to include a broader range of materials accepted under partnership with MMBC (additional plastics and containers). • Continued significant litter collection program at City parks, bus stops and other City properties.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Consider expanding items accepted at the Depot to accept small amounts of clean wood waste. • Accept an expanded range of materials for recycling in public spaces and enhance the container replacement and maintenance program. • Maintain a “litter-free” City by servicing 4,500 City litter and recycling containers in the community weekly.

Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Conducted a pilot project with the small building industry that assessed different methods of recycling materials from single-family home demolitions. • Completed a 15 month food scraps pilot program involving more than 5,800 apartments and condo units. • Launched the garbage cart pilot program to test service level options for garbage collection using carts. • Participated with MMBC on a waste audit of residential and streetscape waste.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Explore options for expanded Recycling Depot service (i.e. Eco Centre).
Plans, Policies, Regulations	Actions taken in 2014
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Report to Council regarding instituting carts for garbage service and altering levels of service (bi-weekly), to increase recycling and waste diversion. • Report to Council on a proposed policy approach for enhanced recycling of demolition waste from single-family residential demolitions.
Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued to work towards achieving the City's goal of diverting 80% of the community waste from the landfill by 2020.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Expand green cart collection to multi-family complexes. • Help develop a sustainable sport and event tool kit for community events.

Community Education and Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> • Delivered 9 workshops with 122 participants on waste reduction, recycling and avoiding food wastage. • Achieved a 97.5% diversion rate for waste generated at the 2014 REaDY summit. • Organized DreamRider theatrical/educational shows, including Zero Heroes and Clean Up your act at 18 elementary schools, reaching 2,749 students. • Addressed over 15,400 customer service enquiries from residents concerning garbage and recycling collection services.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Communicate Richmond’s goal of becoming a Recycling Smart City and achieve 80% waste reduction goal by 2020. • Conduct lobby presentations for multi-family green cart implementation at each complex. • Continue annual reporting to community regarding waste reduction and diversion progress. • Continue public engagement through workshops and deliver 20 theatrical/educational shows at schools. • Support the 5th annual REaDY summit.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Initiated review of the Green Ambassadors and Partners for Beautification programs. • Green Ambassadors contributed nearly 2,500 hours to help promote recycling at community events. • Environmental Programs staff consists of the following personnel; Manager of Environmental Programs (1), Supervisor of litter collection staff (1), litter collection employees (12), and sanitation and recycling administration employees (3).
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Complete review and improve Green Ambassador and Partners for Beautification programs. • Staffing levels are anticipated to be maintained in 2015.

Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding. • Received funding from MMBC for the expansion of the containers recycling program.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding. • Continue to receive funding for the MMBC program.

7. 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. Below are the City of Richmond responses to the Provincial inquiries regarding transportation system management in the City, and summary of initiatives conducted in 2014 and/or planned in 2015.

Does your local government have policies, plans or programs to support alternative modes and technologies of transportation (e.g. walking, cycling, transit, electric vehicles)	Yes
Does your local government have a transportation demand management (TDM) strategy?	Yes
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

7.1. Corporate Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> • Replaced 67 fleet units in 2014 with more fuel efficient vehicles and increased the number of carpool spaces available to staff.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue with vehicle replacements for over 30 vehicles with more fuel efficient hybrid/electric/eco boost engines.

Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Initiated review of City Employee Carpool Program, by undertaking best practices research, with the objective of assessing feasibility of expanding the program to other sustainable travel modes (i.e., transit, cycling, walking). • Implemented a new Fleet asset management system to track and schedule maintenance, log data, and better track Fleet assets. • Developed a pilot project that involves installing GPS monitoring systems in Fleet assets that will enable reduced fuel consumption and more efficient vehicle use. • Compiled Fleet usage and emissions data for Silver-level rating E3 (Energy Environment Excellence) Fleet Certification base lines.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Complete review and update City Employee Carpool Program based on results of research and analysis. • Undertake the E3 Fleet Certification Audit.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued existing initiatives that encourage the use of alternative modes of transportation for commuting to and from work and corporate travel, such as sponsorship and promotion of Bike to Work week, use of corporate bike fleet, and promotion of transit fare tickets and passes for work travel. • Implemented action items identified in the Green Fleet Action Plan designed to achieve a reduction of 20% in Fleet emissions by 2020, which includes; reducing Fleet growth and downsizing vehicles, further right sizing of existing vehicles, upgrades in Fleet asset efficiency and reduced emissions through replacements, improved maintenance scheduling, and anti-idling initiatives.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to support greater use and expansion of the City employee carpool program including the upgrade of carpool vehicles that are up for replacement with fuel efficient mini-vans where appropriate/feasible to accommodate waitlisted carpool participants. • Continue to support use of alternative modes of transportation for work related travel and other corporate initiatives. • Continue with implementation of action items identified in the Green Fleet Action Plan including the expansion of the Fleet Management software to include emissions data, a replacement scoring model, and maintenance and repairs schedules.

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Increased employee participation in Bike to Work Week versus 2013. • Installed anti-skid surface in City Hall parkade along access to/from secure bike room, to enhance bike to work safety. • Supplied bike repair kit (e.g., tubes, chain oil, cables, lights) in bike room at City Hall to further support corporate bike to work participation.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Work with TravelSmart (TransLink Transportation Demand Management –TDM Program) to identify opportunities to expand corporate TDM programs. • Implement the GPS pilot project for select Fleet Vehicles.
Employee Training, Awareness	Actions taken in 2014
	<ul style="list-style-type: none"> • Continued use of City Intranet site to promote Bike to Work Week and other sustainable transportation initiatives. • Undertook various vehicle/equipment training for 60 employees including fuel efficiency driver’s training as part of the core essential safety training program. • Achieved 40% reduction in vehicle accidents over the prior year through driver training services
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue use of City Intranet site to promote Bike to Work Week and other sustainable transportation initiatives. • Raise awareness of any improvements to the City Employee Carpool Program, pending the outcome of the completed review. • Present anti-idling and fuel efficient driver techniques to a further 30% of pertinent staff • Revise training materials to include driver related improvements that will contribute toward City’s Green Fleet Action Plan goals and E3 Fleet Certification. • Create an electronic library of Fleet training materials as well as a tracking method for fleet training, operator certifications/renewals and accident record.

Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Corporate related Transportation Staff consists of the following personnel; Director of Transportation (1), Manager of Transportation Planning (1), Transportation Planner (1), Coordinator of Customer Service (1), and Coordinator of Fitness and Wellness Services (1). • Fleet operations staff consists of the following personnel: Manager of Fleet Operations (1), Fleet Supervisors (2), Fleet Training Officer (1) and Fleet employees (47). • The City participates in a Regional Fleet Managers Group, and regularly attends meetings to gain information concerning emerging trends in best practices management
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Staffing levels are anticipated to be maintained in 2015.
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding • Corporate subsidy of City Employee Carpool Program • Various departmental operating budgets (e.g., for purchase of transit fares)
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding • Pending outcome of review of City Employee Carpool Program, there may be a potential increase to level of subsidy for the program and/or provision of funding to support other sustainable travel modes. • Establish a performance-based procurement process for contracted hired equipment and trucking services.

7.2. Community Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none">• Upgraded off-street paved multi-use path parallel to Railway Avenue for cyclists, pedestrians and other modes of active transportation to include enhanced crossings at two intersections (Granville Ave and Railway Ave) featuring raised crosswalks with green anti-skid surface.• Constructed connecting off-street multi-use path between Garden City Park and planned local street bikeway along Ash Street. The Parkside Bikeway is now 90% complete and will be finished in 2015.• Upgraded seven arterial road crosswalks to include overhead downward lighting and pedestrian-actuated flashing beacons.• Upgraded 12 bus stops for accessibility enhancement (e.g., added a landing pad).• Installed two new bus stop shelters.• Constructed connecting pathway to bus stop on Bridgeport Road.• Constructed pathways/sidewalks along the following three arterial roadways: Railway Avenue (Linfield Gate-Lancing Road), Westminster Highway (Gilley Road-Smith Cr) and No. 6 Road (Westminster Highway-Commerce Parkway).• Constructed multi-use foreshore pathway along the Middle Arm on Sea Island.• Installed green anti-skid surface treatment in three sections of existing bike lanes at conflict/intersection points.• Implemented traffic calming measures in multiple school zones to improve pedestrian safety.

Physical Improvements, Construction	<p>Actions proposed in 2015</p> <ul style="list-style-type: none"> • As part of the approved Transportation Capital Budget the following improvements and enhancements are planned to be completed in 2015 • Construct connecting off-street multi-use path through Blundell Park as part of the planned Crosstown local street bikeway, which result in approximately one-third of the route being completed. • Upgrade 21 bus stops to improve accessibility. • Upgrade six arterial road crosswalks to include overhead downward lighting and pedestrian-actuated flashing beacons. • Upgrade seven arterial road crosswalks to pedestrian signals including three on local street bikeways, one of which is the Parkside Bikeway that will result in completion of the route. • Install six to eight bus stop shelters. • Construct neighbourhood walkway on Shell Road (East) south of Williams Road subject to residents' approval. • Construct sidewalk/pathway on the east side of Minoru Blvd (arterial roadway within the City Centre) between Elmbridge Way and Alderbridge Way. • Construct two off-street multi-use paths along the following major streets: Lansdowne Road (Minoru Blvd-Alderbridge Way) and Westminster Highway (Nelson Road-McMillan Way).
Feasibility Studies, Research, Analysis	<p>Actions taken in 2014</p> <ul style="list-style-type: none"> • Developed design options to extend existing off-street Railway Greenway as an on-street protected bikeway between Garry Street and Moncton Street, to improve walking and bike route options in the city. • Developed alignment options to extend and complete an existing off-street greenway along the northern section of Shell Road to improve walking and cycling route options in the city. • Developed streetscape options for key streets in Steveston Village that accommodate active transportation in support of Official Community Plan goals and objectives with respect to mobility and access. <p>Actions proposed in 2015</p> <ul style="list-style-type: none"> • Conduct a pilot project to assess the effectiveness of in-street pedestrian zone markers in school zones as a traffic calming measure.

Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Initiated TransLink’s Southwest Area Transport Plan encompassing Richmond, South Delta and Tsawwassen First Nation.
	Actions proposed in 2015
Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Facilitated expansion of car-share services in Richmond, which now encompasses three different service providers. • Worked with TransLink to identify locations for the installation of bicycle count monitors on major bikeways.
	Actions proposed in 2015
Community Education, Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> • Supported education and encouragement programs for cycling and walking (e.g., annual bike tour for the community, Bike to Work/School Week, cycling education courses for students and adults, Walk Richmond program). • Presented an anti-idling and fuel efficiency community information booth at 2014 Public Work’s Open House in which over 10,000 people attended.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Expand support for education and encouragement programs for cycling and walking (annual bike tour for the community, Bike to Work/School Week, increased number of cycling education courses for students and adults, and Walk Richmond program). • Explore the possibility of a Car Ride share program stationed at City Hall that will be available to staff during regular business hours, but also to residents after hours and on holidays and weekends. • Present another booth to educate community on fuel efficient driving techniques, anti-idling, electric car charging station and ride share programs at the Public Work’s Open House 2015.

Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Community related Transportation Staff consists of the following personnel: Director of Transportation (1), Manager of Transportation Planning (1), Transportation Planner (1), Transportation Engineer (2), Traffic Operations (4), Traffic Signals (3), Manager of Community Bylaws (1), and Parks & Recreation – various positions. • Community Committees related to Transportation include; the Richmond Active Transportation Committee, the Traffic Safety Advisory Committee, and the Richmond Parking Advisory Committee
	Actions proposed in 2015
	<ul style="list-style-type: none"> • No change anticipated
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Dedicated funding from Roads DCC is in place to support the following annual capital programs; Active Transportation Improvement Program; Neighbourhood Walkway Program; Traffic Calming Program; Transit-Related Amenity Improvement Program; Transit-Related Roadway Improvement Program; Accessible Pedestrian Signal Program • Operating funding is in place to support the following education and promotion initiatives; Bike to Work/School Week, Cycling education courses for elementary students, Cycling education courses for adults, and Community bike ride • The City is continually seeking external grant funding options, namely from the following external partners; TransLink, Ministry of Transportation & Infrastructure, and ICBC
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue with same actions as described for 2014 and look to enhance the programs where possible and feasible.

8. 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. Below are the City of Richmond responses to the Provincial inquiry regarding water and wastewater management in the City, and summary of initiatives conducted in 2014 and/or planned in 2015.

Does your local government have water conservation policies, plans or programs?

Yes

8.1. Corporate Actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none"> • To reduce water waste and improve response times when issues arise, the City Parks Department installed improvements to their existing irrigation systems at corporate facilities to automatically shut off the system if vandalized with an alarm sent to City's Parks. • To promote corporate tap water use, capital funding request for bottle refill stations to be installed at the Works Yard was submitted.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Install bottle refill stations at the Works Yard and other corporate facilities where possible. • Install recommended conservation measures at the 10 water audited buildings, such as; replace constant flush urinals, turn down flush cycle times, replace old toilets with low flush toilets and install aerators
Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Conducted a City facility water audit on 10 corporate buildings, to determine recommended improvements to water conservation measures.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Conduct a more detailed water assessment at the Richmond Ice Centre for the ice rink snow melt pits.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Supported the implementation of Metro Vancouver water sprinkling restrictions throughout Richmond.
	Actions proposed in 2015

Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • City plants grasses and plants that require less water or no water, as per best practices.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to follow the City's landscaping best practices, which emphasize planting grasses and plants at corporate facilities that require little or no irrigation water.
Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Two staff are regular members of the Metro Vancouver Municipal Water Conservation Coordinator Committee. The meetings revolve around networking with other municipalities and discussing initiatives, progresses, updates in policies and results. Group communication is quite frequent.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to take part in the Metro Vancouver Municipal Water Conservation Coordinator Committee
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding • Determine grant opportunities, and apply for available grants to support corporate water efficiency measures.

8.2. Community actions

Physical Improvements, Construction	Actions taken in 2014
	<ul style="list-style-type: none">• Installed seasonal tap water stations at multiple populated and high use areas in the community to promote tap water use and reduce the use of bottled water (e.g. Britannia Shipyards, Garry Point Park).• Installed 1,500 water meters at single-family residences (approximately 78% of single family homes in the City of Richmond are now metered)• Issued 849 toilet rebates to homeowners that replaced old toilets with a low-flush toilet to reduce residential water use. The total incentive paid to homeowners through this program in 2014 was \$84,900.• In May & October 2014, City partnered with BC Hydro's to provide a clothes washer rebate program to reduce home water use and electricity. A total of 205 rebates were issued to homeowners who replaced their less efficient (water and electricity) washer for a new efficient model. The total incentive paid to homeowners from the City for this program was \$15,750.• Through the Volunteer Multi-Family Water Meter Program, the City has received approval from 135 volunteer complexes (comprising 8,300 multi-family dwelling units) to install water meters. Of these, 130 complexes have been completed (8,128 unit), including 48 apartment complexes (5,115 units) and 77 townhouse complexes (2,357 units). It is mandatory for new multi-family residences to have a water meter. A total of 35% of multi-family complexes in Richmond are now water metered.• The City offered an optional free leak audits for all single-family properties that received a water meter through the universal water metering program.• The City offered a free water saving kit (maximum of 2 per household) that includes; a low-flow shower head, kitchen and bathroom tap aerators and a pop-flush device for toilets, as part of both the residential water meter program and the volunteer multi-family water meter program.• Assessed and helped to reduce water waste at single-family homes by providing notification on properties with consumption greater than 250 m3 quarterly.

Physical Improvements, Construction	Actions proposed in 2015
	<ul style="list-style-type: none"> • Install 1,500 water meters at single-family residences and continue the volunteer Multi-Family program • Continue the toilet rebate program (\$100,000 in funding for 2015) • Continue offering the water saving kits and free leak audits to homeowners with a newly installed water meter • Continue to participate in the clothes washer rebate joint program with BC Hydro in 2015.
Feasibility Studies, Research, Analysis	Actions taken in 2014
	Actions proposed in 2015 <ul style="list-style-type: none"> • Measurement review of current water meter practices and technologies is underway by an outside consultant to provide guidance to the City on next steps to improve water use efficiency.
Policy Implementation	Actions taken in 2014
	<ul style="list-style-type: none"> • Sold 89 rain barrels through the City's Rain Barrel Program to Richmond residents, to help promote the use of rain water for gardening purposes and reduce the use of potable water in gardens.
	Actions proposed in 2015 <ul style="list-style-type: none"> • Continue the City's Rain Barrel Program and promote the use of rain water for gardening and irrigation purposes.

Community Education, Engagement	Actions taken in 2014
	<ul style="list-style-type: none"> • Coordinated and funded the theatrical production “H2Whoa!” for 15 Richmond elementary schools. The focus of this presentation is on positive actions that educate students on the efficient use of water, the needs to protect it, and its importance to everyday living. • Delivered an interactive elementary school water education program aimed at teaching students about the importance of water, called Project Wet. • Coordinated an interactive display and public education booth at the City of Richmond’s annual Public Works Open House to showcase the critical water services that the City provides, and educate the community on the City’s high-quality tap water and conservation measures. <p>Coordinated a booth at the annual Capital Works Open House and the Public Works Open House educating residents about water meter installations and water conservation measures.</p> <ul style="list-style-type: none"> • The City’s Water Services Department provided free waterwise gardening workshops for the public to learn about reducing water usage while still maintaining a nice looking garden. • Distributed educational brochures to all single-family homes with a water meter educating them on water conservation • Participated in BCWWA’s Drinking Water Week, a campaign dedicated to educating the public about water and how to protect it. Richmond participated by distributing activities to the public and schools, funding and coordinating ads in the local newspapers as well as discussing the initiative at the Public Works Open House.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to run the successful Project WET elementary school education program and implement new stations and concepts. • Continue to educate the public with information booths, promotional items, hands-on water system demonstrations and games at the annual Public Works Open House. Examine and implement new ideas to engage the public. • Continue to provide free waterwise gardening workshops for the community. • Distribute educational brochures on water conservation to all single-family homes that received a water meter in 2015 • Maintain up to date water conservation information on the City’s website for public use.

Committees, Staffing	Actions taken in 2014
	<ul style="list-style-type: none"> • Two staff are regular members of the Metro Vancouver Municipal Water Conservation Coordinator Committee. The meetings revolve around networking with other municipalities and discussing initiatives, progresses, updates in policies and results. Group communication is quite frequent.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue to take part in the Metro Vancouver Municipal Water Conservation Coordinator Committee
Funding	Actions taken in 2014
	<ul style="list-style-type: none"> • Municipal Operational Funding • City processed \$84,900 of toilet rebates to homeowners that replaced old toilets with a low-flush toilet (849 rebates in total) • In May & October 2014, City participated in BC Hydro's limited term clothes washer rebate program. A total of 205 rebates were issued for a total of \$15,750.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Municipal Operational Funding.

9. OTHER CLIMATE ACTIONS

This section is intended to give the opportunity to record other climate actions that could not be captured in the above sectors, including climate change adaptation actions and air quality actions. Below are the City of Richmond responses to the Provincial inquiries regarding climate change management policy, and City community initiatives the City is involved in with regards to climate adaptation actions.

Has your local government begun to integrate the impacts of a changing climate (adaptation) into its planning and operations?	Yes
Are you aware of the climate change adaptation guidance page on the BC Climate Action Toolkit?	Yes

9.1. Community Actions

Feasibility Studies, Research, Analysis	Actions taken in 2014
	<ul style="list-style-type: none"> • Initiated feasibility study work associated with the City of Richmond’s Dike Master Plan
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Continue on-going feasibility study work associated with the City of Richmond’s Dike Master Plan.
Plans, Policies, Regulations	Actions taken in 2014
	<ul style="list-style-type: none"> • Participated in Regional Flood Protection working groups hosted by the Fraser Basin Council.
	Actions proposed in 2015
	<ul style="list-style-type: none"> • Initiate and complete Phase 2 of the Dike Master Plan, focusing on the Northwest and North Dikes • Continue to participate in Regional Flood Protection working groups hosted by the Fraser Basin Council.

10. INNOVATION

This section is intended to give the opportunity to describe any energy and GHG emission reduction activities that have been undertaken over the past year(s) that your local government is particularly proud of and would like to share with other local governments. Below is summary of the innovated initiative that the City is currently supporting.

10.1. Corporate/Community Actions

The City of Richmond has partnered with the European Athletics, the City of Lausanne and Event Scotland as a Development Partner of Sustainable Sport and Events Toolkit (SSE Toolkit), created by the International Academy of Sport Science and Technology (french abbreviation – AISTS), the Swiss-based interdisciplinary centre of excellence in sport management. As part of the initiative the City is assisting in the development of the SSE toolkit, focusing on waste reduction and management services and initiatives for City of Richmond and community events.

11.CONCLUSION

This report highlights a wide range of initiatives that the City is undertaking to continue to advance sustainability corporately and in the community, with focus on reducing greenhouse gas emissions, and energy and resource use. These efforts help to position the City as a leader in our region and beyond. The City has set aggressive sustainability targets on a range of fronts, including for greenhouse gas emissions reduction and waste diversion. The City will continue to pursue best practices and innovation to achieve its sustainability related goals, which are recognized as critical to Richmond's Vision of "being the most appealing, liveable and well-managed community in Canada".