



## **Climate Action Revenue Incentive (CARIP) Public Report for 2014**



## Broad Planning

### BROAD PLANNING

	Yes	No	Please specify or comment
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?	True	False	The City adjusted targets down from provincial targets as the consultant hired to complete a Community Energy and Emissions Inventory felt that a lower target would be more realistic to achieve. The CEEI was performed as part of the City's Sustainability Action Plan.

Variable	Response
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

### CORPORATE - Broad Planning

	Actions taken in 2014	Actions proposed for 2015
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations	Corporate Climate Action Plan completed.	Corporate Climate Action Plan to be reviewed and updated.
Policy Implementation		
Employee Training, Awareness	Green team newsletters posted on the City's intranet to educate employees on how to reduce their carbon footprint, as well as advise them of upcoming green events/programs.	Continuation of Green Team newsletters.
Committees, Staffing	Staff Green Team Established. The Green Team is working on enhancing recycling for all City Buildings. Staff were encouraged to "kick the can", and remove the garbage cans at their desk and replace them with compost and	Green Team involvement with corporate waste recycling program continues. Developing a 'Green Meeting' checklist for committees, commissions and council meetings

Funding

recycle bins to promote responsible disposal of waste. The Green team was also present at the annual employee Christmas luncheon and diverted 97.5% of the waste from this event.

## COMMUNITY-WIDE - Broad Planning

	Actions taken in 2014	Actions proposed for 2015
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations	Revision of Zoning Bylaw for green density bonus incentive initiated.	Develop an Environmental Framework for Nanaimo to assess impact of existing programs and policies and an assessment of gaps in service. This is aimed at building community environmental stewardship opportunities. Complete revision of Zoning Bylaw for green density bonus incentive and seek council endorsement.
Policy Implementation	Sustainability Action Plan Implementation - Realtor Energy Efficiency Program (REEP) Started.	Sustainability Action Plan Implementation - Continuation of Realtor Energy Efficiency Program (REEP) Continues
Community Education, Engagement	Through REEP, 6 training sessions with 45 realtors were completed on home energy efficiency awareness. A REEP website was also created with information and tools for all realtors to use ( <a href="http://www.vireb.com/reep">http://www.vireb.com/reep</a> ) Zero Waste Challenge Competition was issued to the public ( <a href="http://www.nanaimo.ca/Newsroom/NR141004CityIssuesZeroWasteChallengeToResidents.html">http://www.nanaimo.ca/Newsroom/NR141004CityIssuesZeroWasteChallengeToResidents.html</a> ). City also participated in the Power Smart Appliance Rebate Program in the Fall of 2014.	Realtor Energy Efficiency Program (REEP) to continue with additional realtor training planned and completion of a training manual. Plans to continue with Zero Waste Challenge Competition City plans to participate in the Power Smart Appliance Rebate Program in the Spring of 2015
Committees, Staffing	Corporate reorganization resulted in the creation of an Environmental Services Department consisting of an Environmental Planner and Environmental Bylaw Enforcement Officer.	

Funding	Funding through the National Wetland Conservation Fund applied for to implement a restoration plan for Vancouver Island Beggarticks ( <i>Bidens amplissima</i> ).	Continue to apply for funding to implement restoration initiatives for Lotus pinnatus Park, Nanaimo Estuary and Buttertubs Marsh.
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## Buildings

### BUILDINGS

Variable	Response
Does your local government have green building/construction policies, plans or programs?	Yes

### CORPORATE - Buildings

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Lighting upgrades completed at Port Theatre, Bowen Park Recreation Centre, Harewood Activity Centre, Nanaimo Judo Club, Vancouver Island Conference Centre, and Caledonia Park. Insulation installed at Bowen Park Recreation Centre, and Caledonia Park.	Heat recovery from refrigeration at Frank Crane Arena. Heat recovery from exhaust air at Beban Leisure pool. Lighting upgrades at Bastion Parkade, Nanaimo Aquatic Centre, Public Works Parking lot, Bowen Park parking lot, and Nanaimo Art Gallery. Bowen Park corridor wall upgrade (windows and insulation). Frank Crane Dehumidifier upgrade. Port Theatre Circulation pump upgrade.
Feasibility Studies, Research, Analysis	FortisBC Energy Study at Nanaimo Ice Centre completed. Continuous Optimization study started at Nanaimo Aquatic Centre.	Continuous Optimization Studies proposed at Nanaimo Ice Centre and Beban Park Recreation Centre.
Plans, Policies, Regulations	Design for heat recovery projects at Frank Crane arena and Beban Leisure pool. Design for lighting upgrades at Bastion Parkade, Nanaimo Aquatic Centre Leisure Pool and Public Works lighting.	Design for Chiller Upgrade at Nanaimo Ice Centre.
Policy Implementation	Implementing projects as per Energy Policy.	Implementing projects as per Energy Policy.
Employee Training,	Energy Manager attended several BC Hydro workshops.	New Energy Manager will attend workshops by BC Hydro and Natural Resources Canada.

Awareness		
Committees, Staffing	(No response)	New Energy manager to be hired.
Funding	Project funding from Sustainability Reserve. Project funding from Financial Plan	Project funding from Sustainability Reserve. Project funding from Financial Plan.

## COMMUNITY-WIDE - Buildings

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations		
Policy Implementation	Toilet and appliance rebate programs available.	The City has partnered with the Regional District of Nanaimo to offer a Woodstove Exchange Program in 2015. Toilet rebate program has been expanded to include multi-family residential buildings. Appliance rebate program will also be available.
Community Education, Engagement	As mentioned above, REEP was implemented during the year which trains realtors on energy efficient homes. The desired result is that they will become more effective in promoting energy efficient homes and energy efficiency improvements to sellers of existing homes.	REEP program implementation will continue.
Committees, Staffing		
Funding	Funding received from the BC Ministry of Environment and The Lung Association to offer a woodstove exchange program in 2015.	

## Energy Generation

### ENERGY GENERATION

Variable	Response
Has your local government undertaken district energy projects in 2014?	No
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? ( <a href="http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr">http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr</a> )	Yes

### CORPORATE - Energy Generation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Commissioned new Reservoir No.1 Energy Recovery Facility, producing 511 MW.	Anticipate generating 700 MW from Reservoir No.1 Energy Recovery Facility.
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations		
Policy Implementation		
Employee Training, Awareness		
Committees, Staffing		
Funding		

### COMMUNITY-WIDE - Energy Generation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		
Feasibility Studies, Research, Analysis		
Plans, Policies,		

Regulations	
Policy Implementation	
Community Education, Engagement	
Committees, Staffing	
Funding	

## Greenspace

### GREENSPACE

Variable	Response
Does your local government have urban forest policies, plans or programs?	Yes

### COMMUNITY-WIDE - Greenspace

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	66 boulevard trees were planted in various locations including 40 trees on Halliburton Street. 480 cedar seedlings planted at Oliver Woods and Bowen park. 8 heritage fruit trees planted at Arbutus Park for succession in an old orchard. 63 shrubs planted at Oliver Woods to buffer a newly logged area adjacent to the park. 185 native shrubs planted at Neck Point Park in a foreshore restoration project.	To date, we plan to plant 100 Garry Oaks, 300 Cedar seedlings, as well as approximately 60 large caliper and 20 small caliper trees in a variety of our City parks.
Feasibility Studies, Research, Analysis	Stage 1 report and detailed site investigation completed for City owned brownfield property to be eventually developed as a new transit hub for the City( <a href="http://www.nanaimo.ca/EN/main/departments/Property-Services/south-downtown-waterfront/environmental-condition-property.html">http://www.nanaimo.ca/EN/main/departments/Property-Services/south-downtown-waterfront/environmental-condition-property.html</a> )	Approximately 2.8 acres of the 19.9 acre upland has contamination that will require remedial options. The 6.8 acre water lot requires further investigation to determine how best to move forward. The 2015 environmental work plan will address both of these items.
Plans, Policies,	City Hall Garry Oak Restoration Project Plan	City Hall Garry oak Restoration

Regulations	completed to restore 20 square meter site adjacent to City Hall as an educational opportunity on urban naturalization and biodiversity.	Project implementation in 2015 and 2016.
Policy Implementation		
Community Education, Engagement	66 boulevard tree planted in various locations including 40 trees on Halliburton Street was done in cooperation with the neighbourhood community group (Southend Community Association). 480 cedar seedlings at Oliver Woods and Bowen Park were planted by boy scouts.	An education "wrap" to be developed for the local newspaper. A planting event for Hawthorne Park will be held in the fall of 2015 in which educational material will be communicated to the neighbourhood. Interpretive signage regarding the stormwater management system and vegetation will also be erected at this location to provide ongoing education to park users.
Committees, Staffing		
Funding	Funding for many greening projects is provided by BC Hydro and TD Green Streets. Applied for funding through TD Green Streets Program for Hawthorne Park - \$26,000 to be used for shade tree planting in an urban neighborhood park, playground and around a storm water management pond.	An application has been submitted to BC Hydro to assist in funding boulevard planting on Irwin Street. TD Tree Canada Green Streets Program application successful and funding for tree planting will be received in Fall 2015.

## Solid Waste

### SOLID WASTE

Variable	Response
Does your local government have construction and demolition waste reduction policies, plans or programs?	Yes
Does your local government have organics reduction/diversion policies, plans or programs?	Yes



## CORPORATE - Solid Waste

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		Installation of organics cans in more facilities. Removal of garbage cans from under individual desks.
Feasibility Studies, Research, Analysis	Development of the City's Green Team. A group that meets monthly to coordinate improvements to the City's Environmental Sustainability. The first project focuses on Solid waste in all facilities. The initial piece of work was to research which facilities have which services available to them and what services we need.	Increase in facilities with organics collection and recycling facilities. Increasing visibility of these facilities through better signage. Improving usage of the facilities through consistent appearance throughout the organization.
Plans, Policies, Regulations		Green Group's City of Nanaimo Environmental Sustainability Management Plan.
Policy Implementation		
Employee Training, Awareness	Green team newsletter posted on the City's intranet to educate staff on how they can reduce their carbon footprint as well as advise them of any upcoming green events/programs. Additional green group events.	Green Team newsletters to continue. Green Group events, big event on Earth day aimed at employees and increasing their awareness to Environmental sustainability in the work place. Pledge to give up their garbage can.
Committees, Staffing	Green Team created to encourage recycling in all City buildings.	
Funding	Approved funding from Fortis BC for 2 CNG refuse trucks which will reduce GHGs related to refuse collection.	

## COMMUNITY-WIDE - Solid Waste

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		Gearing up for the potential Automation of Solid Waste fleet.
Feasibility	Zero Waste Challenge	Zero Waste Challenge- understanding what

Studies, Research, Analysis	the barriers to Zero Waste are in Nanaimo.	
Plans, Policies, Regulations		
Policy Implementation		
Community Education, Engagement	Zero Waste Challenge offered to residents. This challenge required households to track their household waste to inspire residents to recycle and compost more. Education on contamination of recycling collection at the curbside. What is contamination?	Winners announced for 2014 Zero Waste challenge. Top 3 winners were able to divert 98%, 97%, and 86% of their household waste. Zero Waste Challenge to continue in 2015. Further education on contamination and did you know you could recycle that. #NanaimoRecycles campaign
Committees, Staffing	Regional Solid Waste Advisory Plan Committee.	Regional Solid Waste Advisory Plan Committee.
Funding		

## Transportation

### TRANSPORTATION

Variable	Response
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? ( <a href="http://www.toolkit.bc.ca/resource/transportation-demand-management-small-and-mid-sized-communities-toolkit">http://www.toolkit.bc.ca/resource/transportation-demand-management-small-and-mid-sized-communities-toolkit</a> )	Yes
Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)?	Yes

### CORPORATE - Transportation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		Car pool space is available at City Hall for City employees. Upgrades to a service bay at public works to be completed to enable CNG vehicles to

		be serviced. RFP for 2 CNG trucks to be issued in the spring.
Feasibility Studies, Research, Analysis	Research undertaken in an attempt to reduce GHGs on the City's fleet (cost/benefit analysis on CNG/hybrid vehicles). An engineering firm was hired to complete a feasibility study for facility upgrades to service CNG vehicles was completed.	Continued research to investigate options to reduce GHGs on our fleet.
Plans, Policies, Regulations		Parking Bylaw Update. Rewrite of City's Development Parking Regulations Bylaw in order to reflect the sustainability goals of the OCP and Transportation Master Plan. Further development of food strategy.
Policy Implementation		
Employee Training, Awareness		
Committees, Staffing	Green Team, Transportation Advisory Committee	New Planning and Transportation Advisory Committee to be organized.
Funding	Approved funding through Fortis BC for 2 CNG refuse trucks.	

## COMMUNITY-WIDE - Transportation

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	New Bike Lanes – Linley Valley Dr (400m), Hammond Bay Rd (400m), Bruce Ave (800m).	Boundary Avenue Complete Street Corridor – Pedestrian, transit and cycling upgrades along the Boundary Avenue Corridor (~2km). Bowen Road bike lanes + sidewalk improvements (1.2km). Bruce Avenue – Fourth to Fifth (400m).
Feasibility Studies, Research, Analysis		E&N Trail Alignment and Costing Study.
Plans, Policies, Regulations	In 2014 the City adopted a Transportation Master Plan seeking to double the percentage of non-auto trips from 12 to 24% by 2041. This was a 3 year process	

	to define transportation strategy for the City over the next 25+ years while shifting to a more sustainable mix of transportation services.	
Policy Implementation	Nanaimo CarShare Cooperative supported by providing access to parking.	Bicycle Network Development. Continued support of Nanaimo Carshare Cooperative.
Community Education, Engagement	Bike to Work week promoted and events organized to encourage residents to ride their bike instead of drive their vehicle.	Updated Bicycle MappingBicycle. Wayfinding Pilot Project. Continuation of Bike to Work week events.
Committees, Staffing		
Funding		

## Water and Wastewater

### WATER and WASTEWATER

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

### CORPORATE - Water and Wastewater

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction	Construction completed of the new 14ML Reservoir No.1 (enclosed tank) and Energy Recovery Facility. Since April 15, 2014, the City's new Energy Recovery Facility turbines (three 111 KW units) has been capturing the excess energy from the water which feeds the new reservoir and selling this hydro-electric power to BC Hydro. Construction of the new South Fork Water Treatment Plant continued in 2014.	Construction completion of the new South Fork Water Treatment Plant using gravity to feed the City's distribution system. Testing and commissioning of the Water Treatment Plant is expected in late 2015.
Feasibility Studies, Research,		

Analysis		
Plans, Policies, Regulations	Adopted a revised Water Conservation Plan – June 9, 2014.	Development of new water meter standards and leak detection survey work in the water distribution system.
Policy Implementation	Water conservation strategies laid out in the water conservation plan resulted in cumulative water consumption reduction of 25% in 2014 (15% above our goal of 10% in the next decade).	Continue to monitor water consumption and consider new goals as those set out in the water strategy have been surpassed.
Employee Training, Awareness		
Committees, Staffing		Hiring of EOCP certified operations staff for the South Fork Water Treatment Plant.
Funding	Secured \$144,000 from BC Hydro for New Plant Design Incentive for the City's South Fork Water Treatment Plant.	Installation of high-efficiency T8 and LED lighting at the South Fork Water Treatment Plant as part of incentives received from BC Hydro. Commissioning of the new South Fork Water Treatment Plant, using gravity siphon, saving 719,000 kWh per year over conventional water treatment plant construction.

## COMMUNITY-WIDE - Water and Wastewater

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations	Watering restrictions in the summer. Toilet and washing machine rebates offered.	Continuation of water restrictions, and toilet and washing machine rebates.
Policy Implementation		
Community Education, Engagement	Presentations to University undergraduates in Forestry, Environmental Sciences and Geology classes on concepts relating to the City	Presentation to educate students and the public on water related issues and sustainability. Media releases regarding reservoirs water

	water supply system, infrastructure, current issues, and sustainability.	storage level and snowpack in watershed
Committees, Staffing	Water Resources staff participation in Team WaterSmart, 'Understanding your Water System, Environment and Cycles' education opportunity with grade 4 and 5 elementary students.	Continuation of Team WaterSmart education with grade 4 and 5 elementary students.
Funding		

## Other Climate Actions

### OTHER CLIMATE ACTIONS

Variable	Response
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? ( <a href="http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities">http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities</a> )	Yes

### CORPORATE - Other Climate Action

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		
Feasibility Studies, Research, Analysis		
Plans, Policies, Regulations	Revision of the Stormwater Infrastructure section of the City Manual for Engineering Standards and Specification (MoESS) to include a greater variety of green infrastructure features within the standards.	Complete the revision process and seek Council approval for the recommended changes
Policy Implementation		
Employee Training, Awareness		
Committees, Staffing		
Funding		

## COMMUNITY-WIDE - Other Climate Action

	Actions taken in 2014	Actions proposed for 2015
Physical Improvements, Construction		
Feasibility Studies, Research, Analysis	Staff are part of a technical working group in a review to include climate adaptation measures within the Provincial Flood Guidelines.	Complete the review.
Plans, Policies, Regulations		
Policy Implementation		
Community Education, Engagement		
Committees, Staffing		
Funding		

### Innovation

## INNOVATION

### CORPORATE - Innovation

As mentioned previously, in 2014 The City of Nanaimo completed the construction of the new Reservoir No. 1 and Energy Recovery Facility. Water is gravity fed from South Forks Dam where three turbines are capturing the energy from this water flow before it is pumped out to City residents. In 2014 the Energy Recovery Facility was able to produce 511 MW, and is expected to produce 700 MW in 2015 (enough energy to power 60-70 homes). The energy being produced is reducing the city's carbon footprint and the revenue earned by selling the power back into the system will help recoup operating costs of the water supply system. The City of Nanaimo also received an honourable mention at the 2014 UBCM convention from WoodWORKS! for the use of wood in this facility.

## Local Government Information

### LOCAL GOVERNMENT INFORMATION

Variable	Response
LOCAL GOVERNMENT INFORMATION   Name of Local Government	Nanaimo, City of
LOCAL GOVERNMENT INFORMATION   Name of member Regional District (RD)	Nanaimo
LOCAL GOVERNMENT INFORMATION   Regional Growth Strategy (RGS) in your region	Yes
LOCAL GOVERNMENT INFORMATION   Population	50,000-99,999

### Submitted by:

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