Climate Action Revenue Incentive Plan (CARIP) Public Report

Climate Action Revenue Incentive (CARIP) Public Report for Year 2011

Cowichan Valley Regional District

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Table of Contents

General Information • **Community Wide Actions** • o 1.1 - <u>Measure</u> o 1.2 - <u>Plan</u> o 1.3 - <u>Reduce</u> Supportive Direct o 1.4 - Community Wide Innovation • Corporate Actions o 2.1 - <u>Measure</u> o 2.2 - <u>Reduce</u> Supportive Direct o 2.3 - Corporate Innovations Carbon Neutral Progress Reporting

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General Information

Name of Local Government Member of Regional District (RD) Regional Growth Strategy (RGS) in region Population Cowichan Valley Regional District Cowichan Valley Regional District No 78471

Community Wide Actions for 2011

1.1 Measure

Community Wide Measurement Actions

Question	Have you been using the Community Energy and Emissions Inventory (CEEI) to measure progress? What else have you been using instead of/in addition to CEEI?
Answer	
	Yes
Additional Information	We have been using the CEEI data to establish a base line and are currently working with the province and partners to pilot an enhanced version which will provide specific and refined information as well as spatial analysis of emission throughout the Region. This will be used a guiding set of parameters to assist with climate action programs. In addition we have been using the NRCan building typology system to map energy use and its links to future development projections and growth scenarios.

1.2 Plan

Community Wide Targets

Question	Do your OCP(s) have targets, policies and actions to reduce GHG emissions, as per the requirements under the Local Governments Act (LGA)? If yes, please identify the targets set. If no or in progress, please comment.
Answer	Yes
Additional	
Information	7 of 9 electoral area OCP's have adopted the provincial targets to reduce GHG
	emissions. The remaining two electoral areas have draft bylaws going to committee/board in early 2012.

Question	If you are a Regional District, does your RGS have targets, policies and actions to reduce GHG emissions, as per the requirements under the Local Governments Act (LGA)? If yes, please identify the targets set. If no or in progress, please comment.
Answer	No
Additional	
Information	The CVRD has committed to a Regional Integrated Sustainability Plan for 2012. This will include targets and polices around Climate Change and GHG emissions.
Actions Taken	Additional 7.5 meter setback for SPEA (Streamside protection and enhancement area)
this Year	in four electoral areas.
Actions for	Pilot additional tools to increase compliancy with Riparian Area bylaw. Koksilah River
Next Year	corridor plan
Proposed	
Action Type	<i>Green Space (e.</i> g. developed urban forestry policy, adopted park acquisition policy)

1.3 Reduce

Supportive Community Wide Actions

Action Type					
	Broad Planning (e.g. creation/revision of OCPs, CEPs, transportation plans)				
Actions Taken this Year	All CVRD OCP's have included Bill 27 commitment revisions, (except Area E). Adopt and support the implementation of the Green Business Development Plan (EDC). A regional energy analysis and plan is currently in development which identifies areas in which renewable energy alternatives are possible, as well as future projections of growth and energy and emissions implications.				
Proposed Actions for Next Year	Final OCP (Area E) to complete Bill 27 targets.				
Action Type	<i>Building and Lighting</i> (e.g. developed green building policy, increased density in the downtown)				
Actions Taken this Year	Draft green building strategy tabled to guide building permit process and development				
Proposed Actions for Next Year	Draft Corporate Green Building Strategy. Completion of CVRD Green Building Strategy. Corporate Lighting Strategy and BMP document.				
Action Type	<i>Energy Generation</i> (e.g. signed on to provincial 'solar ready' regulation, explored options for bioheating for buildings)				
Actions Taken this Year					
Proposed Actions for Next Year	Completion of Regional Energy Mapping and Analysis.				

Action Type	<i>Transportation (e.g.</i> developed sustainable transportation plan, completed bicycle master plan)
Actions Taken	Desta and with DC Tenneit in developing a long town (25 years) regional tenneit future
this Year	Partnered with BC Transit in developing a long term (25 years) regional transit future plan in creating a tool that will help prioritize our future infrastructure and service

	investments, with the ultimate goal of increasing ridership and reducing single vehicles on the roads. Hired a transit analyst to help improve the overall transit service which will help attract more riders. Continued partnership with the Cowichan Biodiesel Cooperative to collect and refine biodiesel for vehicle use.			
Proposed Actions for Next Year				
Action Type	<i>Waste (e.g. introduced composting and recycling education programs)</i>			
Actions Taken this Year	Launched extensive "Zero Waste Challenge" public education campaign. Local "Zero Heroes" featured on brand new website, and in newspaper advertising. Social media outlets were also utilized to promote campaign. -Continued to offer free Environmental School Education Program, in conjunction with Nanaimo Recycling Exchange, to all schools in the region. This included outreach at public events. -Continued to offer "Recycled Tune of the Day" on the local radio station, where a song is prefaced with local recycling /zero waste information. -Continued to promote awareness of recycling opportunities/ environmental concerns in			
Proposed Actions for Next Year	the community. Extensive overhaul of our online CVRD Recycling Directory. Continue with Zero Waste Challenge messaging and working to increase community involvement.			
Action Type	<i>Water/Sewer</i> (e.g. participated in water smart initiatives, implemented Water Action Plan, introduced rebates on low flush toilets)			
Actions Taken this Year	Updated Water Conservation Plans. Continue to provide rebates for low flow toilets for all water and sewer utilities in the CVRD. Began a "Low Flow Retro Program" Pilot Program for 50 homes in one water system. This program provides a plumber to install 2 low flow toilets, shower heads and sink aerators at nominal fee. Power Smart Hydro Energy Audit which resulted in a two sewer pump station replacements with energy savings expected at 22,000 kWh/year.			
	Continued partnership with the "Partnership for Water Sustainability in BC" as well as the Vancouver Island CAVI program where the CVRD participates as an active member in programming and outreach activities. Active participation on the Water Balance Model team web interface tool for community use. Continued partnership with adjacent Regional Districts, MOE, NRCan and others to develop a coastal groundwater model to assist in long term water planning.			

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Proposed	
Actions for Next Year	Continue to provide rebates for low flow toilets. Expand the "Low Flow Retro Program" to entire water system. Utilize the Power Smart- Hydro Energy Program to improve controls for Arbutus Ridge water and sewer systems with expected electricity savings of 70,000 kWh/yr. Audit remaining water and sewer systems for further energy reductions.
	Proposed CAVI activities include hosting a water balance model forum, co hosting a technical workshop on integration of watershed targets into LWMP, hands on workshop for water balance model users. Roll out of an enhanced water balance model for public use - Water Balance lite, as well as the climate change and stream erosion modules.
	In partnership with Ministry of Agriculture and the Partnership for Water Sustainability undertake agriculture and land use mapping to develop an agriculture irrigation model.
Action Type	
	Other Actions
Actions Taken	
this Year	
Proposed	
Actions for	
Next Year	

Direct Community Wide Actions

Action Type	Buildings (e.g. implement use of sustainability checklists and development permit guidelines for new buildings)
Actions Taken this Year	Sustainability checklist for building/development applications implemented.
Proposed Actions for Next Year	
Action Type	<i>Energy</i> Generation (e.g. implement district energy, geothermal, solar)
Actions Taken this Year	
Proposed Actions for Next Year	
Action Type	<i>Transportation (e.</i> g. implement bike lanes, pedestrian paths, upgrade <i>transit</i> service and infrastructure, improve roads, parking fees etc.)
Actions Taken this Year	Continued operation of parks and trails division bio diesel maintenance truck. Installed 28 bus shelters, added 2,000 hours to the transit system including a new route (#5 Eagle Heights) and expanded the service in various areas, improved the visibility of many transit stops, implemented various transit promotions (i.e. free transit days, entered two parades, and two public education sessions), conducted two Cowichan Commuter rider surveys, installation of bike racks at two Park N rides, and will add another 2,500 hours to the service in Feb 2012 to improve trips gaps in the current schedule,) – all in an effort to help promote a better service and to attract more riders.
Proposed Actions for Next Year	
Action Type	Waste (e.g. introduce composting and recycling programs)
Actions Taken this Year	Continued with curbside recycling program for electoral areas. Continued with regional neighbourhood recycling bin program. Continued with offering free Zero Waste Event Program equipment/signage/pick-up to the public/businesses. Continued offering free year-round drop off of Yard & Garden materials at all CVRD

	depots and a private business in the South End. Offered a 2011 Regional Woodstove Exchange Program whereby 220 uncertified stoves were switched out for cleaner- burning, EPA-certified appliances; old appliances recycled. Continued with yearly garbage tipping fee increase as an incentive to reduce waste and increase recycling. Added the ability to recycle Styrofoam as a drop off option to the public. Successful pursuit of greater loading efficiencies with waste export (increased shipping container weights (aiming to be at capacity) = less trips = reduced GHG emissions).Continued to offer as many new (and existing) stewardship programs as possible at all CVRD recycling depots. Continued to offer many free recyclables at all CVRD recycling depots; materials that do have a fee are priced lower than garbage, as an incentive to increase recycling. Continued to offer Free Stores at two of our recycling depot locations. Tri-Regional W2E Study is now complete. Upgraded existing infrastructure at Bings Creek Solid Waste Management Complex in order to provide three stream tipping capacity. Continued with annual Telephone Book Recycling Program (fundraiser) in local schools. Continued enforcement of Land Clearing Management Regulation Bylaw, banning the open-burning of land clearing debris in electoral areas. Continued to enforce Waste Stream Management Charges and Regulation Bylaw, including commercial organic ban; haulers monitored for infractions and fined accordingly. Continued to enforce Waste Stream Management Licensing Bylaw, a facility licensing bylaw to help mitigate social and environmental impacts. Continued to offer free residential tipping of organic food waste at Bings Creek Solid Waste Management Complex (e.g. 5 gallon pail/day).
Proposed Actions for Next Year	Internal review of waste disposal options including W2E and other less carbon intensive disposal options. Feasibility study for regional composting facility to locally manage the region's yard and garden materials, food waste, biosolids and possibly septage -Implement easily accessible public recycling options at all CVRD recreation centers. -Apply for as many new stewardship programs as possible for all CVRD recycling depots. -Subsidized Backyard Composter Sale where 1,000 units are sold to the public at roughly one third the individual commercial price (held biannually on even numbered years). -Feasibility study for in-house curbside collection. Reviewing proposed curbside models, including organics collection. -Backyard burning bylaw drafting/implementation. -Remediation of old incinerator sites (ashfills) at Peerless Rd. and Meade Creek; upgrade infrastructure at Peerless Rd. Recycling Depot.
Action Type	<i>Water/Sewer</i> (e.g. implement water conservation and reduction initiatives)
Actions Taken this Year	Replaced all water and sewer pumps with variable frequency drives and soft starts to conserve energy. Purchase a Smart Car and Hybrid vehicle for the Utility Crew. Decreased Diesel Generator testing from 1 hour/week to 10 minutes/week for 10 utility systems.

Proposed	
Actions for	
Next Year	
Action Type	Green Space (e.g. plant trees, conserve forest etc.)
Actions Taken this Year	Acquired 128 acre Sansum Point property to be maintained as a forested and Marine foreshore Park. Completed 26 km of the Cowichan Valley Trail between Duncan and town of Lake Cowichan, providing active transportation route. completed final components of 2 kilometre Silvermine Trail connecting local neighbourhoods. Undertook community tree planting event in Saltair Centennial Park. Creek bank native revegetation project at Bings Creek bridge crossing. Native grass planting on quarter acre community park in Mill Springs to reduce irrigation consumption demands. Greenscaping half-acre former industrial site in cobble Hill. Invasive species removal event in old mill Park with 100 students from Shawnigan Lake school.
Proposed Actions for Next Year	Continue with parkland acquisition opportunities through community and regional Park, invasive species removal add a selected number parks in partnership with local NGOs and school groups, complete additional sections of the Cowichan Valley Trail, assess opportunities for further naturescaping and native species planting in local parks
Action Type	Other Actions
Actions Taken this Year	
Proposed Actions for Next Year	

1.4	Comm	inity	Wide	Innovation	
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Question	Is there any activity that you have been engaged in over the past year(s) that you are particularly proud of and would like to share with other local governments? Please describe and add links to additional information where possible.
Answer	Climate Smart. The CVRD partnered with the Pacific Carbon Trust and Climate Smart to deliver a series of training sessions for 10 local businesses to calculate, reduce and offset their carbon footprint in the community. https://climatesmartbusiness.com/ Launch of Cowichan Biofuels Facility at the CVRD's Bings Creek Solid Waste Management Complex. A unique recycling partnership, between the CVRD and the Cowichan Energy Alternatives Society, boasting a commercial-scale plant that enables waste cooking oil to be recycled into sustainable vehicle fuel (petro-diesel alternative); cooking oil collected from the public onsite (in addition to area restaurants), and biodiesel to be used to power CVRD machinery onsite. This new community biodiesel processor closes the loop on local energy solutions – taking waste cooking oil, processing it into biodiesel, and selling it at the 2999 Allenby Road card lock to Cowichan Biodiesel Co-op members.

Corporate Actions for 2011

2.1 Measure

Corporate Measurement Actions

Question	What steps has your local government taken toward completing its corporate emissions inventory (e.g. corporate assets gathered related to energy and fuel data and calculated GHG emissions from energy use)?
Answer	We have complete emissions inventory for our buildings and fleet.

Question	What tool are you using to measure, track and report on your corporate emissions (e.g. SMARTTool, other tools including excel spreadsheets)?
Answer	The CVRD piloted the provincial SMARTTool in 2010/2011. We have also signed on for SMARTTool for 2012. In addition changes to financial tracking systems and staff training have realized efficiencies and strategic information collection.

2.2 Reduce

Supportive Corporate Actions

Action Type	A
Action Type	Broad Planning (e.g. developed corporate climate action plan)
Actions Taken	
this Year	Development of a Corporate Green Team, which developed a work plan for corporate initiatives based on staff input. Draft Corporate GHG emission inventory and plan competed. Based on SMART TOOL output.
Proposed	
Actions for	Completion of Corporate Emissions Inventory and Recommendations.
Next Year	
Action Type	<i>Building and</i> Lighting (e.g. developed energy reduction plan for all corporate buildings)
Actions Taken	
this Year	Completed an Energy Management Assessment with BC Hydro and received Board resolution to hire an Energy Manager for 1 year. Ongoing retrofitting of facilities

	lighting systems (lighting and motion sensors) to increase efficiency.
Proposed Actions for Next Year	Work closely with Energy Manager to review/audit facilities to source out as many energy savings initiatives as possible
Action Type	<i>Energy Generation</i> (e.g. undertook feasibility study of green energy generation for civic <i>buildings</i>)
Actions Taken this Year	Currently in process of undertaking a broad analysis of energy use and generation, including high level feasibility of public buildings for energy generation or distribution.
Proposed Actions for Next Year	
Action Type	Transportation (e.g. created anti-idling policy for city vehicles, bike to work week promotion)
Actions Taken this Year	Bike to Work week with good participation.
Proposed Actions for Next Year	Development of a green purchasing policy for vehicles. Creation of a corporate anti- idling policy.
Action Type	Waste(e.g. completed waste audit of City Hall)
Actions Taken this Year	Lunch hour screening of environmental documentary films to increase awareness.
Proposed Actions for Next Year	Conduct audit of all CVRD facilities for improved waste reduction programs, including Instalment of 3/4 waste stream bin system. Measure paper use in facilities. Implement an electronic records management system. E-mail staff pay stubs and cell-phone bills. Explore centralized garbage cans and compost bins. Compost paper towels within staff washrooms.
Action Type	Water/Sewer (e.g. completed study of sewer and water energy use)
Actions Taken this Year	Power Smart Hydro Energy Audit which resulted in a two sewer pump station replacements with energy savings expected at 22,000 kWh/year. Conducted two micro-

	energy feasibility studies, for two water systems to determine if these projects are viable.
Proposed Actions for Next Year	Utilize the Power Smart- Hydro Energy Program to improve controls for Arbutus Ridge water and sewer systems with expected electricity savings of 70,000 kWh/yr. Audit remaining water and sewer systems for further energy reductions. Move ahead with planning a micro-energy project for one water system.
Action Type	Other Actions
Actions Taken this Year	Participation in the Provincial TaDYM pilot project in order to develop a provincial process with the Province, the Federal Government, other Local Governments, power providers to develop a rigorous spatially oriented CEEI to develop strategic policy responses to emission reduction and meaningful climate action plans. Engagement with other local government participating in the ICLEI cohort program to assess where if possible synergies can occur in the future regarding information exchange and tools, particularly on Georgia Basin and Cross regional basis on Vancouver Island. Trial of the use of iPad tablets for information sharing, data collection and no paper meetings, at a staff and political level.
Proposed Actions for Next Year	In January an independent air quality testing (i.e. CO and NO2) will be done at the 3 arenas to confirm monitoring systems are working as designed.

Direct Corporate Actions

Action Type	Building and Lighting (e.g. energy efficiency retrofits to municipal buildings)
Actions Taken this Year	Installed motion detectors for lighting control at CVRD building and changed board room lighting from 90W to 18 W LEDs (by Dec 15). Installed motion detectors for lighting control in 6 change rooms and 7 storage areas at KPRC. - Replaced some lighting at SLCC; T-12 fixtures to T-8s in gymnasium and lounge area (by Dec 31) will have all exterior pole lights changed from 150W HPS to 100w MH. - Installed 3 new heat pumps at KPRC to service kitchen, lounge and multipurpose room (I with gas auxiliary and 2 with electric auxiliary heat). - Installed 2 heat recovery ventilators at KPRC for exhaust of washrooms, which allows equipment to scavenge waste heat from the exhausted air and reintroduces into heating loop. - Improved energy conservation program at KPRC by programming heat schedules for lower temperatures when rooms are unoccupied. - Install new heat pump and wasted heat recovery system in boiler room at CVRD building. - Completed energy management project at ISC including installing energy efficient lighting (over 1300 fixtures) throughout ISC including the removal of 560 fixtures with PCBs. - Replaced spot lights with LEDs in Theatre track lighting at ISC - Upgraded building automation controls at ISC (added more energy management control points; pumps, HVAC, motion sensors and controls). - Replaced old main electrical substation (containing PCBs) at ISC with new 750KVA main electrical substation (i.e. transformer) and secondary switch gear. - Replacing by Dec 31st (2) 15 passenger vans with smaller and newer mini vans (ISC and KPRC). - CLSA: installed a separate dehumidifier in curling rink using electric regeneration without a gas or propane burner (ie no GHG emissions). - Replaced lighting (8 and 4 foot - T12 fixtures) with energy efficient lights (4 foot - T8 and T5s) at the Honeymoon Bay Hall (11) , Lake Cowichan Hall (56) and Youbou Hall (28). CLSA major retro project energy efficiency aspects of the project included: replacing approximately 200 light fixtures with nergy efficient fixtures; 50 - 360 Wat

	domestic final heat. Heat recovery ventilators used in washrooms and change rooms. Low flow water fixtures installed. Economizers on roof top equipment to utilize free cooling. Building automation system to monitor systems and dynamically adjust to save energy. Installation of room occupancy light sensors. Upgrade to existing DDC system to better control energy consumption.
Proposed Actions for Next Year	
Action Type	Energy Generation (e.g. implemented heat recovery systems, solar)
Actions Taken this Year	
Proposed Actions for Next Year	Pending detailed analysis of energy manager and energy study.
Action Type	Fleet (e.g. anti-idling policies for fleet vehicles, purchasing of hybrid)
Actions Taken this Year	New Nissan Leaf Electric vehicle in our Engineering and Environment Department to replace an older vehicle.
Proposed Actions for Next Year	Proposing to replace an older (24) passenger bus with a newer model for SLCC
Action Type	<i>Waste (e.</i> g. introduction of composting and recycling programs and education)
Actions Taken this Year	Four-stream recycling in the lunchroom at CVRD Administrative BuildingDefault double-sided printing in Engineering & Environmental Services Department -All CVRD events are Zero Waste Events, with four stream recycling stations/signage.
Proposed Actions for Next Year	
Action Type	<i>Water/Sewer</i> (e.g. initiated water conservation and reduction initiatives)
Actions Taken this Year	Installation of low flush toilets and urinals at CVRD building and in CLSA, installation of flush valves with lower flow units upon fixture failure at KPRC.
	Ongoing corporate and financial support to the Cowichan Watershed Board and its

	partner's initiatives regarding water awareness and conservation programs.
Proposed Actions for Next Year	Proposing for 2012 to install a water catchment reservoir at CVRD building(Ingram st).
Action Type	Green Space (e.g. planting of trees)
Actions Taken this Year	Ongoing support to the Cowichan Stewardship Roundtable and its partners in stewardship activities and restoration programs. In order to support and develop partnership to guide policy and programming - ongoing support and partnership with the Coastal Invasive Species Council as Well as the Garry Oak Recovery team and the Coastal Douglas-fir Conservation Team. Member of the Local Government Task force on Species at Risk as well as the Working group on Invasive Species.
Proposed Actions for Next Year	Ongoing participation in multi organisational partnership
Action Type	Other Actions
Actions Taken this Year	An eco friendly parking lot (state of art filtration system to clean surface water runoff before it empties into Lake Cowichan, and the new bioretention and bioswale areas trap grit, dirt, automotive pollutants preventing them from contaminating the groundwater and environment) was installed at CLSA (Cowichan Lake). And a small rain garden was installed in a corner of the parking lot at KPRC (Mill Bay). Also installation of multi bin recycling containers in some areas at recreation facilities. Utility bill collection on line for invoicing and payment. Where paper invoices are produced additional information on other services is printed on blind side reducing the insertion of additional paper. Finance Department review of systems and procedures has reduced number of reports printed moving to digital reporting and storage where possible as well as incorporating changes in the accounts receivable section to allow for the incorporation of digital billing. Implement direct deposit for employee/directors expense claims and mileage claims. Implement electronic certificates for legal firms for confirmation of outstanding Utility Bills, reducing faxing and paper documentation.
	Implement electronic billings for member municipalities, save paper and mailing costs. Finance Department piloting re-education program regarding the use of window coverings to improve energy efficiency and user comfort within the Administration building

Proposed	
Actions for	Research the ability to merge utility accounts, so that we might only have two bills a
Next Year	year instead of 5 invoices.

2.3 Corporate Innovations

Question	Is there any activity that you have been engaged in over the past year(s) that you are particularly proud of and would like to share with other local governments? Please describe and add links to additional information where possible.
Answer	The engagement of staff in the development of new programs and initiatives across the organization. This has been seen as an opportunity to provide real, tangible professional input programming and implementation not as an impediment or an additive component of their work.

Carbon Neutral Progress Reporting

Corporate emissions using SMARTTool or equivalent inventory tool	0
Emissions from services delivered directly by the local government	
Emissions from contracted services	
Less:	0
GHG reductions being claimed for this reporting year from Option 1 - GHG reduction project Energy Efficient Building Retrofits and Fuel Switching	
Solar Thermal	
Household Organic Waste Composting	
Low Emissions Vehicles	0
Less:	0
GHG reductions being claimed for this reporting year from Option 2 - GHG reduction projects	
Please list all Option 2 Projects Implemented (insert title of the projects(s) as per project plan template. If you have more than two Option 2 projects you can add more lines at the bottom of this sheet)	
Less: Offsets purchased for this reporting year (Option 3)	
Balance of corporate emissions for this reporting year. (If the corporate emissions balance is zero, your local government is carbon neutral for this reporting year)	0 ng

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Question		
	If your community has not achieved carbon neutrality for this reporting year please	
	describe the actions that you intend to take next year to move you toward your carbon	
	neutral goal.	

Making Progress on Your Carbon Neutral Commitment

Tonnes CO2e