



2015 Climate Action Revenue Incentive Program (CARIP) Public Report

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CARBON NEUTRAL PROGRESS REPORTING

Local governments are required to report on their progress in achieving their carbon neutral goal under the Climate Action Charter. This report follows the established approach to determining carbon neutrality for the purposes of the Climate Action Charter.

| | 2013 | 2014 | 2015 |
|---|---------------|---------------|---------------|
| Emissions (tonnes CO₂e) | | | |
| Emissions from Services delivered directly by CVRD | 1428 | 1312 | 1148 |
| Emissions from Contracted Services | 246 | 330 | 362 |
| Total Emissions | 1674 | 1642 | 1510 |
| Offsets (tonnes CO₂e) | | | |
| Energy Efficient Building Retrofits and Fuel Switching* | (28.8) | (27.3) | (27) |
| Household Organic Waste Composting** | (1645.2) | (1614.7) | (1483) |
| Total Offsets | (1674) | (1642) | (1510) |
| CORPORATE GHG EMISSIONS BALANCE (tonnes CO₂e) | | | |
| | 0 | 0 | 0 |

*see separate report: "Cowichan Station Hub Energy Efficient Building Retrofit and Fuel Switching: Carbon Credits for Carbon Neutral Reporting 2015"

**see separate report "Yard and Garden Organics Diversion: Carbon Credits for Carbon Neutral Reporting 2015"

SNAPSHOT QUESTIONS

| | |
|--|--|
| Are you familiar with the Plan2Adapt guidance located on the Climate Action Toolkit Website? http://www.toolkit.bc.ca/Resource/Plan2Adapt | Yes |
| Are you familiar with "Preparing for Climate Change - An Implementation Guide for Local Governments in BC? http://www.toolkit.bc.ca/Resource/Preparing-Climate-Change-Implementation-Guide-Local-Governments-British-Columbia | Yes |
| Have you visited the climate change adaptation guidance page on the BC Climate Action Toolkit? http://www.toolkit.bc.ca/adaptation-challenges-and-opportunities | Yes |
| Did you measure your local government's corporate GHG emissions in 2015? | Yes |
| Carbon Neutral Progress Survey, please check the GCC Climate Action Recognition Program level that best applies: | Level 3 - Achievement of Carbon Neutrality |

BROAD PLANNING

Broad planning refers to high level planning that sets the stage for GHG emissions reductions, including plans such as Official Community Plans, Integrated Community Sustainability Plans, Climate Action Plans or Community Energy Emissions Plans. Land use planning that focuses on Smart Growth principles (compact, complete, connected, centred) plays an especially important role in energy and GHG reduction.

CORPORATE BROAD PLANNING - 2015 ACTIONS

- Initiated Asset Management Planning Process to ensure sustainability of infrastructure and services. Asset Management Policy completed and working towards an Asset Management Strategy.

CORPORATE BROAD PLANNING - ACTIONS PROPOSED FOR 2016

- Complete 2014-2018 Strategic Plan to set the course for CVRD Board and staff, providing a roadmap and strategic focus areas to address challenges and opportunities.
- Authorize the 2015 Strategic Energy Management Plan.
- Update GHG reduction Strategy will be updated for the reduction of corporate greenhouse gas emissions and achievement of carbon neutrality.
- Draft Regional Integrated Planning Strategy Policy

SNAPSHOT QUESTIONS

| | |
|---|--|
| Does your local government set aside funds in a climate reserve fund or something similar? | No |
| Does your local government have a corporate GHG reduction plan? | Yes |
| What is your current GHG reduction target (s) as identified in your OCP or RGS? | 33% Reduction by 2020 and 80% reduction by 2050 below 2007 levels. |
| Has your local government used the Community Energy and Emissions Inventory (CEEI) to measure progress? | Yes |
| What plans, policies or guidelines govern the implementation of climate mitigation in your community? | <ul style="list-style-type: none"> • Energy and Emissions Plan • Community-Wide Action Plan • Official Community Plan |

BUILDING AND LIGHTING ACTIONS

Low-carbon buildings use the minimum amount of energy needed to provide comfort and safety for their inhabitants and tap into renewable energy sources for heating, cooling and power. These buildings can save money, especially when calculated over the long term.

COMMUNITY-WIDE BUILDING AND LIGHTING - ACTIONS PROPOSED FOR 2016

| |
|--|
| <ul style="list-style-type: none"> •Ornamental street lighting energy use assessment and preparation of a business case for LED upgrades. |
|--|

CORPORATE BUILDING AND LIGHTING – 2015 ACTIONS

Island Savings Centre

- Renovate and expand the ice resurfacers snow melt pit to allow use of the reclaimed heat from the ice plant to melt the snow, and removal of a below ground abandoned oil tank. Currently snow is just dumped outside to melt.
- Replace a few more exterior doors to allow for proper closure and air sealing.

Kerry Park Recreation

- Replaced the 40 year old emergency generator (diesel).
- Completed the Phase 1 heat recovery and energy reduction projects.
- Installed VFDs and new DDC system on refrigeration plant.

Shawnigan Lake Community Centre

- Upgrade the Elsie Miles facility with new heat pumps, replace existing oil fired furnace system and replace single glazed windows with double glazed.
- Replace SLCC old electric furnace with new electric heat pumps.

Cowichan Lake Sports Arena

- Complete installation of low-flow water conserving plumbing fixtures in Lake Cowichan Hall.
- Installed two new propane boiler systems at Cowichan Lake Sports Arena for domestic hot water and supplemental space heating.

CORPORATE BUILDING AND LIGHTING - ACTIONS PROPOSED FOR 2016

Island Savings Centre

- Complete the ice resurfacers snow melt pit to allow use of the reclaimed heat from the ice plant to melt the snow, and removal of a below ground abandoned oil tank.
- Continued door replacements.
- Add external metal cladding to North end of building.

CVRD Head Office

- Continue implementation of lighting and mechanical upgrades as identified in 2014 Energy Study.
- Install new boiler for heating system.

Cowichan Lake Sports Arena

- New dehumidification system
- Continued implementation of lighting upgrades as identified in 2014 Energy Study Report.

ENERGY GENERATION ACTIONS

A transition to renewable or low-emission energy sources for heating, cooling and power supports large, long-term GHG emissions reductions. Renewable energy including waste heat recovery (e.g. from biogas and biomass), geo-exchange, micro hydroelectric, solar thermal and solar photovoltaic, heat pumps, tidal, wave, and wind energy can be implemented at different scales, e.g. in individual homes, or integrated across neighbourhoods through district energy or co-generation systems.

COMMUNITY-WIDE ENERGY GENERATION - ACTIONS PROPOSED FOR 2016

- Approval in principle of leasing land to solar PV community co-op.
- Proposal for Saltair water system upgrade to include hydro-generation component.
- Solar powered mixing system at Shawnigan Lake North Reservoir.

CORPORATE ENERGY GENERATION - 2015 ACTIONS

- Held a solar PV Lunch and Learn event for staff
- Completed a Solar PV Feasibility Study for Bings Creek Recycling Centre.

SNAPSHOT QUESTIONS

| | |
|---|-----|
| Is your local government connected to a district energy system that is operated by another energy provider? | No |
| Are you aware of the Integrated Resource Recovery guidance page on the BC Climate Action Toolkit? http://www.toolkit.bc.ca/tool/integrated-resource-recovery-irr | Yes |

GREENSPACE ACTIONS

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.

COMMUNITY-WIDE GREENSPACE - 2015 ACTIONS

- Develop a Zero Waste certification standard for schools, businesses and residents (as part of the Cowichan Zero Waste Challenge initiative).
- Planning for the Cowichan Valley Trail connection between Stebbings Road, south of Shawnigan Lake, to the Capital Regional District boundary.
- Approximately 1.5 km of the Cowichan Valley Trail was resurfaced from Hawthorn Road north.
- Approximately 3,000 hours of volunteer time was organized in local community parks, working on projects such as: trail construction, invasive species removal, vegetation planting and general park cleanup.

COMMUNITY-WIDE GREENSPACE - ACTIONS PROPOSED FOR 2016

- Implement the Hecate Park Green shores Beach Nourishment and Restoration Project.
- Initiate construction of the Cowichan Valley Trail connection between Shawnigan Lake and the Capital Regional District.
- Continue community and regional parks pathway development which in 2016 is focused in Electoral Area A (Mill Springs), Electoral Area C (Cobble Hill Village, Quarry Nature Park), and Regional Parks (Cobble Hill Mountain Regional Recreational Area).
- Initiate the Electoral E Parks and Trails Community Parks and Trails Master Plan to provide guidance for community parks and pathway acquisition and development over the next 10-15 years.
- Ongoing parks volunteer programming inclusive of environmental enhancement projects and invasive species management.

CORPORATE GREENSPACE - 2015 ACTIONS

- The Shawnigan Lake Hall Green Demolition Project achieved a threshold of 95% reuse and recycling of non-hazardous building materials and a 32% reduction on the bulk demolition cost.
- The Summer Student Program work crew completed the following projects:
 1. Busy Place Creek; sign installation
 2. Farnsworth Park; painting picnic shelter and access improvements
 3. Gibsons Park; improvements (split rail, trail work, bollards)
 4. Deloume Park; landscaping
- The Invasive Species Management Program was expanded to three Electoral Areas (A, B and E) and entered year four of plant removal and habitat restoration for parks in Shawnigan Lake. An initial inventory to identify high priority parks that require invasive species treatment as well as habitat restoration was completed in Electoral Areas A and E. High priority parks were subsequently treated.
- Mill Bay/Malahat Community Parks and Trails Master Plan was adopted in November 2015 to provide guidance for community parks and pathway acquisition and development over the next 10-15 years.

CORPORATE GREENSPACE - ACTIONS PROPOSED FOR 2016

- Initiate Phase 3 of the Cobble Hill Village Purple Pipe Project to expand reclaimed water use for irrigation.
- Ongoing Parks Summer Student Work Program.
- Ongoing CVRD Parks Invasive Species Management Program is expanding to Regional Parks and Community Parks in Electoral Areas C, G and H.

SNAPSHOT QUESTIONS

| | |
|---|-----------|
| Does your local government have urban forest policies, plans or programs? | No |
|---|-----------|

SOLID WASTE ACTIONS

Reducing, reusing, recycling, recovering and managing the disposal of the residual solid waste minimizes environmental impacts and supports sustainable environmental management, greenhouse gas reductions, and improved air and water quality.

COMMUNITY-WIDE SOLID WASTE - 2015 ACTIONS

- Continue to provide support to Cowichan Biodiesel Co-op.

CORPORATE SOLID WASTE - 2015 ACTIONS

- Completed a preliminary assessment for establishing a regional composting facility.
- Completed a waste composition study.

CORPORATE SOLID WASTE - ACTIONS PROPOSED FOR 2016

- Complete the Bings Creek Recycling Centre Energy Upgrade Project
- Design energy efficient replacement facility at Meade Creek Recycling Centre
- Lighting upgrade analysis at Peerless Recycling Facility.
- Evaluate options for curbside pick-up of yard and garden waste.
- Develop a Zero Waste certification standard for schools, businesses and residents (as part of the Cowichan Zero Waste Challenge initiative).

SNAPSHOT QUESTIONS

| | |
|--|-----|
| 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 |

TRANSPORTATION ACTIONS

Transportation actions that increase transportation system efficiency, emphasize the movement of people and goods, and give priority to more efficient modes, e.g. walking, cycling, ridesharing, and public transit, can contribute to reductions in greenhouse gas emissions and more livable communities.

COMMUNITY-WIDE TRANSPORTATION - 2015 ACTIONS

- Worked with BC Transit and the Regional District of Nanaimo to study the feasibility and market potential of future transit service connections between the two districts.
- Reviewed service changes made in October 2014 to see if any further improvements are necessary to potentially increase ridership.
- Approved the CVRD’s transit service standards and performance guidelines that will define the minimal level of service desired to meet the community needs and reflect community values. Also the standards will assist the CVRD in assessing land development proposals and guide future transit service investment and planning recommendations.
- Formalized flag/wave stops in South Cowichan with installation of over 50 bus stops to increase visibility and understanding of the service.

COMMUNITY-WIDE TRANSPORTATION - ACTIONS PROPOSED FOR 2016

- Implement changes for new registrants on handyDART to provide in-person assessments to best match transportation services to individual mobility needs.
- Advance design work on transit park and ride site expansion options for the Cowichan Valley Commuter transit service to and from Greater Victoria to allow for future expansion.
- Continue the transit service optimization review to identify and implement changes in the Fall of 2016 to better use existing resources and increase ridership (e.g. introduction of a Ladysmith-Duncan express transit service).

CORPORATE TRANSPORTATION - ACTIONS PROPOSED FOR 2016

- Review DCFC station infrastructure to consider upgrading to a Combined Charging Station for electric vehicles.
- Develop business case for expanding EV Fleet.

SNAPSHOT QUESTIONS

| | |
|--|-----|
| Does your local government have policies, plans or programs to support Cycling and Transit? | Yes |
| Does your local government have a Transportation Demand Management (TDM) strategy (e.g. to reduce single-vehicle occupancy trips, increase travel options, provide incentives to encourage individuals to modify travel behavior)? | No |
| Does your local government have policies, plans or programs to support local food production (thus reducing transportation emissions)? | No |

WATER AND WASTEWATER ACTIONS

Managing and reducing water consumption and wastewater is an important aspect of developing a sustainable built environment that supports healthy communities, protects ecological integrity, and reduces greenhouse gas emissions.

COMMUNITY-WIDE WATER AND WASTEWATER - 2015 ACTIONS

- Cobble Hill Park washrooms grey water system implemented.
- Upgrades to Mill Springs Waste Water Treatment system and take-over of operations.
- Honeymoon Bay Water System moved to metered billing.
- Established energy consumption baseline and key performance indicators for pump stations and sewage treatment plants.

COMMUNITY-WIDE WATER AND WASTEWATER - ACTIONS PROPOSED FOR 2016

- Swabbing Cowichan Bay sewer system to increase flow efficiency.
- Relocation of the Shawnigan Lake North water system from a flood zone (pending funding).
- Implement inclined block pricing rate structure and universal metering for Shawnigan Lake North Water System.
- Registering all groundwater wells and establishing transducer monitoring system.
- Arbutus Ridge Waste Water system upgrade proposal includes effluent re-use for golf course irrigation.

CORPORATE WATER AND WASTEWATER - 2015 ACTIONS

- Updated/amended South Sector Liquid Waste Management Plans to ensure existing commitments are met emerging issues are considered.

CORPORATE WATER AND WASTEWATER - ACTIONS PROPOSED FOR 2016

- Update/amend South Sector Liquid Waste Management Plans to ensure existing commitments are met emerging issues are considered.

SNAPSHOT QUESTION

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

CLIMATE CHANGE ADAPTATION ACTIONS

For local governments, adaptation to a changing climate can take the form of changes in policy, management, technology and behaviour that minimize negative impacts or exploit opportunities. It can involve both “hard” and “soft” solutions, including: changes in infrastructure engineering, planning, zoning, bylaws and public education.

COMMUNITY-WIDE ADAPTATION - 2015 ACTIONS

Climate Impacts

- Corporate Flood Protection function formed.
- New Normal website launched to rationalize watering restrictions throughout the region.
- Regional Climate Risk Technical Team formed.

Community Planning

- Completed transportation scoping exercise.
- Completed population demographic projections.
- Updated the Central and South Sector Liquid Waste Management Plans.
- Completed State of the Environment Reports.

Ecosystem Protection

- Invasive Plants Bylaw adopted.

Public Health

- Completed Regional Airshed Protection Strategy.

Long Term Water Security

- Completed Multi Account Evaluation of Cowichan Water Supply.
- Completed construction of regional diking system.
- Completed Hydrometric Network Strategy.

COMMUNITY-WIDE ADAPTATION - ACTIONS PROPOSED FOR 2016

Climate Impacts

- Update regional climate projections related to infrastructure, ecosystems and public safety.
- Update climate impacts risk analysis and draft adaptation strategies.

Community Planning

- Draft Regional Integrated Planning Strategy Policy.

Ecosystem Protection

- Conduct a GIS based Natural Capital Analysis.

Public Health

- Implement Regional Airshed Protection Strategy.
- Conduct structured capacity building for airshed protection including the establishment of a steering committee.
- Implement the Hogweed Eradication Program

Long Term Water Security

- Complete regional water balance models.
- Complete construction of Cowichan River dikes and implement sediment control program.
- Create corporate water security function to create watershed based risk framework and maps.
- Implement Sediment Control Program along diking system.

LOCAL GOVERNMENT INFORMATION

| | |
|---|-----------------------------------|
| Name of Local Government | Cowichan Valley Regional District |
| Regional Growth Strategy (RGS) in your region | No |
| Population | 50,000-99,999 |

SUBMITTED BY

| | |
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