

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE  
MEETING OF WEDNESDAY, APRIL 24, 2013**

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**SUBJECT     CLIMATE ACTION PROGRAM 2012 ANNUAL REPORT AND 2013 UPDATE**

**BACKGROUND**

The Capital Regional District (CRD) and its municipal partners recognize that climate change is a critical issue to address from both a greenhouse gas mitigation and climate adaptation perspective. There are significant economic, social and environmental benefits from investing in policy, technology, programs, infrastructure and education to reduce energy use and emissions and preparing for climate change impacts in the capital region.

The CRD established a regional Climate Action Program in 2009. The program is supported by a program coordinator and a part-time assistant to implement the CRD Climate Action and Adaptation Service (Bylaw No. 3510). The program has 5 major areas of focus:

1. providing support to local governments in developing and implementing corporate and community climate action goals (emissions reductions and climate adaptation) as part of Official Community Plans and voluntary commitments under the BC Climate Action Charter
2. liaising with senior levels of government on climate change-related programs, policies and legislation that impact the Capital Region
3. providing scientific information, data and indicators related to local and regional greenhouse gas emissions and projected climactic impacts
4. supporting the CRD in fulfilling its own corporate mitigation and adaptation objectives, including becoming carbon neutral in its own operations beginning in 2012; and
5. building capacity and catalyzing action through educational partnerships with public and private sectors, non-governmental organizations and community organizations.

The program uses a 3-pillar approach to guide its activities: "Engage, Reduce and Prepare." CRD staff directly support local governments in the region by assisting with corporate emissions accounting, identifying funding opportunities, researching best practices and establishing region-wide projects to educate and support citizens and stakeholders across the region.

The program also plays a critical role in disseminating and translating relevant information for elected officials and municipal staff, providing research and professional development for public sector employees and assisting CRD divisions in accelerating climate action through service delivery.

The Climate Action Program 2012 Annual Report (Appendix A) provides an overview of service accomplishments as well as the latest greenhouse gas emission trends for the capital region comparing 2007 emissions to 2010 emissions. CRD staff continue to leverage relationships, expertise and community credibility to secure external partnerships and funding.

Since the last update provided in November 2012, CRD staff have been working on:

- Securing \$72,000 in funding from Natural Resources Canada to undertake a **coastal sea level rise mapping and risk assessment exercise** as well as an **associated model bylaw** for the capital region. These funds, combined with cash and in-kind support from the CRD, will be a significant regional adaptation activity in 2013.

This initiative will help the CRD and municipal partners respond to the “Guidelines for Management of Coastal Flood Hazard Land Use” developed by the Province of BC. It will also help to achieve objectives related to regional cooperation and regional infrastructure identified in the 2013-2014 CRD Strategic Plan.

Working with municipal and community partners over a 2-year period starting in spring 2013, the CRD aims to implement a robust methodology to identify risks and provide critical information on vulnerable areas, buildings and infrastructure. The process to complete this initiative, including developing a model bylaw, will rely on close collaboration and participation from local governments and CRD staff in a number of departments.

- Participating in the **Regional Sustainability Strategy** development process, led by CRD Regional Planning, to help facilitate the inclusion of regional mitigation and adaptation policies in each of the five themes of the document.

As part of the Climate Action Sub-Strategy work, staff will lead the development of a climate-action “blueprint” with community and municipal partners in 2013. This document will build on accomplishments and act as a revised roadmap for climate actions and strategies on the ground to help achieve the policies.

Staff will engage municipal staff and elected officials in climate-related discussion for both activities February-June 2013 through the inter-municipal committee structures with widespread community engagement taking place in fall 2013.

- Expanding the **Climate Action To-Go Kit** program in partnership with BC Hydro and local libraries. Due to high demand, there are now 24 kits available in the capital region. Each kit provides practical tools to measure household energy use and offers a selection of diverse print and video resources on climate change.
- Launching the **Ready, Set, Solve** Program with more than 60 post-secondary students from UVic, Royal Roads University and Camosun College. The program, first piloted by the CRD in 2011, matches teams of students with local governments, public institutions, and non-profit agencies to solve real-life climate and sustainability challenges.

## **CONCLUSION**

The Climate Action Program continues to provide corporate and municipal support on a variety of climate-related issues to achieve local and regional objectives. Information and support requests, both internally at the CRD and externally with community stakeholders, continue to grow as the service establishes itself as a credible regional hub for climate change issues.

**RECOMMENDATION**

That the Environmental Services Committee receive this report for information.

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Larisa Hutcheson, P.Eng.  
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Parks & Environmental Services  
Concurrence

SW:cam  
Attachments: 1

# Climate Action Program 2012 Annual Report

**CRD** | Environmental Protection



Established in 2009, the Capital Regional District (CRD) Climate Action Program serves municipalities by acting as a resource, hub and facilitator on regional climate change issues. The program directly supports stakeholders through five important roles:

- Assisting local governments in developing and implementing emissions reductions and climate adaptation policies, actions and programs under their corporate and community portfolios.
- Providing scientific information, data and indicators related to local and regional greenhouse gas emissions and projected climate impacts for the capital region.
- Increasing public awareness of climate change issues and catalyzing action through partnerships with public and private sectors, non-governmental organizations and community organizations.
- Liaising with senior levels of government on climate change related programs, policies and legislation that impact the capital region.
- Supporting the CRD in fulfilling its own corporate climate objectives on mitigation and adaptation, including becoming carbon neutral in its own operations starting in 2012.

The program philosophy is based on three pillars: engage, reduce and prepare. By ensuring that residents, businesses and local governments are engaged in the issues and understand the case for taking action, the capital region will be more successful in reducing emissions and preparing for climate change impacts.

The CRD Climate Action Program works to support the necessary shifts in policy, infrastructure, behaviour and planning that are required to create a vibrant, healthy and low-carbon capital region.

The contents of this report provide a snapshot of program activities from 2012. More information is available at [www.crd.bc.ca](http://www.crd.bc.ca).



## The Case for Action

Climate change may be the single biggest challenge facing our planet. The impacts of a changing climate will continue to affect our ecological and economic systems, human health and community well-being around the world. Taking action on climate change helps increase energy security, reduce community vulnerabilities and encourage innovation.

The benefits of action at the local and regional levels are numerous. For example, economic development initiatives can drive competitiveness and improve quality of life, while creating jobs and enhancing the skills of the local workforce. Reducing energy consumption in housing and commercial buildings lowers operating costs for companies and households. Strategic investment in energy efficient and climate resilient local government operations can produce substantial cost savings and reduce corporate risk.

To address the climate crisis, we need to dramatically reduce global energy consumption, transition energy supply to renewable forms and increase community resiliency. Locally, these objectives are just as important.

For more than a decade, local governments, businesses, community organizations and public-sector institutions in the capital region have been stepping up to the climate challenge. The Climate Action Program recognizes these efforts and aims to build on these successes through its work.





## Fulfilling the BC Climate Action Charter

The CRD, the Islands Trust and the thirteen municipalities are signatories to the BC Climate Action Charter. The charter includes commitments to:

- a) Measure and report on community-wide Greenhouse Gas emissions;
- b) Create complete, compact and energy-efficient communities; and
- c) Become carbon neutral in respect to corporate operations.

With respect to **carbon neutral corporate operations**, the Climate Action Program played a critical role by providing input and communicating changes on provincial policies related to corporate greenhouse gas emission measurement, reduction projects, offsetting rules and reporting requirements to partner municipalities.

CRD staff serve on the **Provincial Carbon Neutral Working Group**, which provides feedback and guidance to the Green Communities Committee and includes the Union of BC Municipalities, the BC Ministry of Environment and the BC Ministry of Community, Sport and Cultural Development.

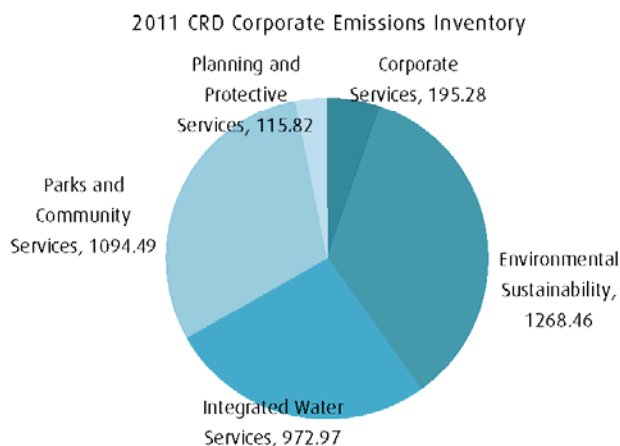
With respect to the CRD fulfilling its own corporate obligations under the Charter, the Climate Action Program led the completion of the 2011 CRD corporate greenhouse gas inventory and associated Climate Action Revenue Incentive Program (CARIP) reports.

In addition, the program worked to integrate energy/fuel use reporting requirements into applicable requests for proposals and contracted service agreements.

The CRD is on track to be carbon neutral in its operations for the 2012 year. There are four annual steps associated with carbon neutrality under the Climate Action Charter:

1. **Measure** corporate energy and fuel use and calculate GHG emissions with a robust approach using a standardized scope of responsibility.
2. **Reduce** emissions each year through policy, infrastructure, technology, behavior
3. **Offset** emissions to achieve no net GHG impact for operations.
4. **Report** on efforts to fulfill program requirements and share progress.

In 2011, the CRD generated 3,647 tonnes of Co<sub>2</sub>e from its corporate operations and services. This represents a decrease of 10% below 2010 levels and is a direct result of fleet improvements and thermal heat capture to displace natural gas use at the Panorama Recreation Centre. The CRD will complete the 2012 in the first quarter of 2013.





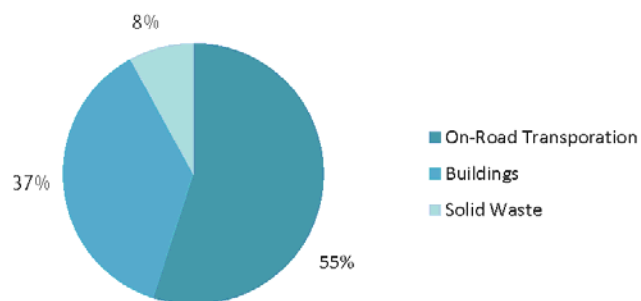


## Regional GHG Emission Trends & Projected Climate Impacts

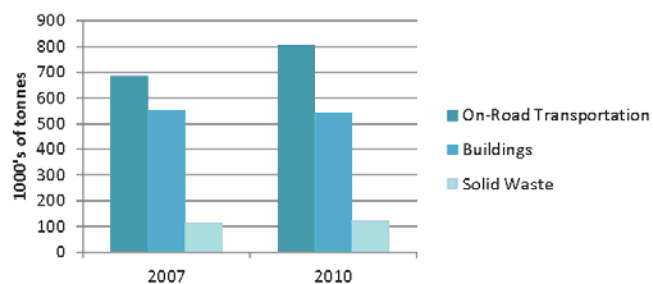
Part of the program's work is to provide scientific and technical data on energy use, greenhouse gas emissions and projected climate impacts. The CRD works with the Province of BC to compile **Community Energy and Emissions Inventory** (CEEI) reports for municipalities and electoral areas. Each municipality and electoral area receives a custom report articulating GHG emissions associated with buildings, transportation and solid waste along with relevant climate related indicators to help measure progress against targets.

Energy use and greenhouse gas emissions continue to increase over 2007 levels. In 2010, the region consumed just over 33,000,000 Gigajoules (GJ) of energy translating into 1.473 million tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e-).

2010 Greenhouse Gas Emissions for the Capital Region



Comparison of 2007 and 2010 Greenhouse Gas Emissions for the Capital Region





Transportation-related activities are the largest source of emissions, followed by building energy consumption and solid waste diversion. This data informs regional actions on policies and programs. The CEEI reporting cycle is every two years – the next being a 2012 inventory report in early 2014.

The CRD supported **regional downscaled climate projections** research for the capital region in partnership with the Pacific Climate Impacts Consortium, the City of Victoria, Metro Vancouver and other mainland municipalities. This research, now under academic peer review, provides localized climate projections and extreme weather event analysis specific to southern Vancouver Island offering local governments and industry a more accurate understanding of projected climate change impacts.

The Climate Action Program will increase focus on adaptation planning and action in 2013 with a number technical activities and policy initiatives to help the region improve its adaptive capacity.

Based on the downscaled climate research, by 2050, the region will experience:

#### **Warmer temperatures**

- Up to 2.3oC higher than the baseline 30 yr average
- Increase in # hot days
- Increase in humidity levels

#### **Wetter winters, drier summers**

- Up to 14% more winter precipitation
- Up to 32% less summer rainfall

#### **Increased Frequency and Intensity of Storm Events**

- As much as 15% combined with increase in storm surges

#### **Sea Level Rise**

- 45 cm, most visible during winter high tides.
- By 2100, almost 1 metre according to high estimates





## Municipal Support

Responding to the needs of the thirteen local governments and three electoral areas in the region, the CRD hosts an Inter-Municipal Climate Action Working Group and an Inter-Municipal Climate Action Steering Committee. These meetings allow municipal staff and elected officials to share information, collaborate and provide input on direction on future work of the service.

The program produces two monthly e-newsletters with information, events, resources and grant opportunities for local government staff and community members. Combined, the newsletter directly reaches over 600 people each month.

Each community has unique priorities for climate action. Throughout 2012, CRD staff provided customized support to local governments, such as:

- Assisting with the implementation of corporate and community-wide policies, programs, information reports and educational initiatives
- Undertaking technical analysis of greenhouse gas benefits from proposed projects and initiatives
- Sharing data and indicators on projected climate impacts and reporting on community wide emissions trends
- Holding training sessions for municipal staff on BC Climate Action Charter
- Assisting staff with completion of corporate greenhouse gas inventories
- Communicating information and processes associated with the BC Climate Action Charter
- Undertaking research on best practices related to topics of electric vehicles, climate change risk assessments, building retrofits, sustainable development guidelines and greenhouse gas modelling

In June 2012, the Climate Action Program hosted a **BC Mayors Climate Action Leadership Council Workshop**. The workshop brought together elected officials to share information on mitigation and adaptations issues facing the region, find synergies and prioritize action.





## Community Education & Engagement

The Climate Action Program worked directly with more than 12,000 citizens and 50 community organizations in 2012. By engaging diverse stakeholders in its work, the CRD helps citizens and decision makers understand the magnitude of climate change and how it will affect the economy, environment and community in the region.

The CAP provided sponsorship support to a number of community events in 2012, including:

- Off-the-Grid Youth Climate Action Festival
- Sierra Youth Coalition Sustainable High Schools Project
- Bruce King public lecture on sustainable building techniques
- Destination Conservation energy workshops in regional schools
- Living Building Symposium hosted by Cascadia Green Building Council
- Colwood Sunfest
- Greening Your Restaurant Workshop







## 2012 Program Accomplishments

The Climate Action Program has a diverse portfolio that is shaped by the priorities and interests of its partner local governments. A summary of the major projects and initiatives in 2012 is described below.



In August 2012, the program secured \$31,500 in external funding to accelerate the planning and deployment of personal **electric vehicle charging infrastructure** in the region. Using a grant provided by the Province of BC's

Community Charging Infrastructure Program, CRD staff supported more than 30 organizations with education, information and planning resources. Also, installation of 84 Level-2 charging stations at public, private and institutional locations in our region is anticipated by April 2013.



The **Growing Solutions** campaign ended in September 2012. This project, funded through a \$25,000 grant, focused on connecting food choices to climate change. The goals included increasing food security and inspiring citizens to grow, buy and support local food. In partnership with Lifecycles Project Society, Growing Solutions helped establish five new school vegetable gardens, expand four existing school gardens and launch a household behavior-change campaign that reached over 7,000 citizens.



In October 2012, the CRD launched the **Climate Action To-Go Kit** program. In partnership with

local libraries, the program is a creative way to engage households on energy conservation and climate action. Twenty-four kits were distributed to local branches of the Greater Victoria, Vancouver Island Regional and the Salt Spring Island public library systems. Each kit includes books, videos, energy efficiency tools, LED light bulbs, and select print information. The CRD designed the program for replication in other jurisdictions and the Sunshine Coast Regional District recently adopted it. This program is one of many energy conservation educational initiatives under an on-going partnership with BC Hydro.



Established in January 2011, The **Resilient Region Breakfast Exchange** connects individuals from

government, business, the public sector, non-profits and academia working on climate and sustainability issues in the region. The location rotates each month, showcasing innovative organization, buildings and people. In 2012, nine breakfast events attracted more than 500 individuals and membership in the online community exceeded 300 citizens. Based on its continued popularity and participant feedback, the exchange is a valuable event for partnership development, project incubation and community building.





Throughout 2012 the CRD supported the **Climate Smart Business Program** in partnership with the District of Saanich, the City of Victoria, and the Pacific Carbon Trust. This program provided sixty businesses in the region with cash subsidies to participate in the Climate Smart training program. Climate Smart helps participants learn about climate change, develop their own greenhouse gas emissions inventory, and implement a series of measurable actions to reduce fuel and energy use.



As the local government partner, the CRD delivered the **LiveSmart BC: Small Business Program** to further support the business community. In partnership with the WestShore Chamber of Commerce and City Green Solutions, this program provided seventy-four local businesses with a free energy assessment and access to enhanced financial incentives from utility providers. Since 2011, the Small Business program has served close to 200 businesses.

CRD staff contributed to the development of proposed **Pay-As-You-Save** utility financing mechanisms — a model that enables single family dwelling homeowners to invest in energy efficiency improvements through loans that are repaid on their utility bills. As a direct result of this work, there are now two provincial pilot programs running utility financing, including in the City of Colwood.

Working with CRD Parks and CRD Integrated Water Services, the Climate Action Program coordinated a one-year business case evaluation of **ecosystem offset credit** potential associated with conservation and management of the former Western Forest Products and Timber West Leech River watershed lands. CRD committees support the concept of developing offsets from the carbon value in these lands and the organization is now pursuing the next steps.

## Additional Corporate Support:

Internally, the Climate Action Program helps champion efforts to reduce energy use and prepare for climate change impacts. Select 2012 activities included:

- Analyzing greenhouse gas benefits associated with various CRD reduction projects
- Supporting development of two major grant applications under the 2012 UBCM Gas Tax Funding Agreement.
- Providing advice on greenhouse gas reduction ownership considerations for contracts involving potential greenhouse gas reductions.
- Communicating technical information and sharing new provincial guidelines related to sea level rise
- Providing appropriate climate messaging for various environmental education campaigns.
- Submitting corporate award nominations to The Federation of Canadian Municipalities Sustainable Communities program (2) and the Union of British Columbia Municipalities Climate Leader program (1)
- Sponsoring and selecting the 2012 Climate Action EcoStar Award recipients
- Integrating climate-related information and research for the development of the 2013 Regional Sustainability Strategy.
- Sponsoring a "Get Prepared" advertising campaign in partnership with CRD Emergency Protection Services
- Arranging energy and building envelope assessments for three CRD facilities.

In late 2012, the program secured a \$10,000 **internship grant** from the Pacific Institute for Climate Solutions to hire a student intern to directly support the programs, projects and initiatives developed for municipal partners

## Community Networks:

The Climate Action Program provides information, resources and opportunities for local government through relationships across the province and around the world. Currently the program is active in:

### **BC Hydro Conservation Community of Practice:**

This group includes more than 125 organizations from across the province. Participants share programming and practices focused on energy conservation and climate change issues.

### **Province of BC Climate Action Leaders**

**Community:** Hosted by LiveSmartBC through the BC Climate Action Secretariat, more than 1200 professionals representing over 170 communities across BC are engaged through an online portal sharing ideas, information and events.

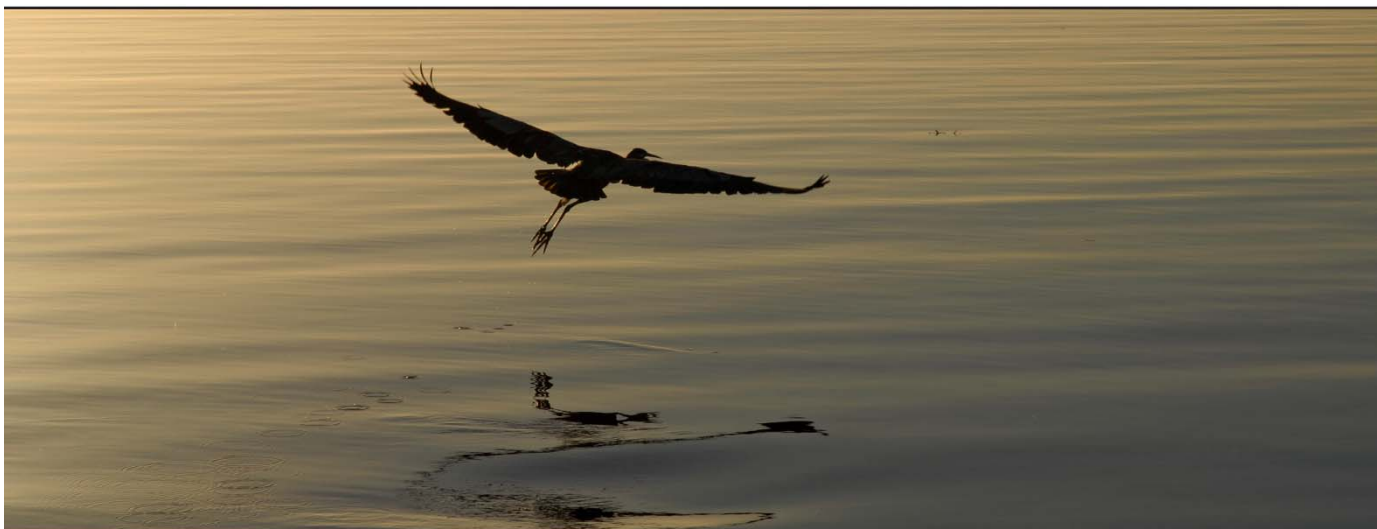
**Green Economy Working Group:** This consortium of practitioners from local and provincial government, business and academia get together quarterly to share research, support each other and strategize on projects that accelerate the green economy.

**BC Plug-In Vehicles Network:** With a goal of promoting the clean energy vehicle movement, this group of government and utility representatives meet periodically to share information, programs and policies about developing an electric vehicle network across BC.

### **National Climate Adaptation Community of**

**Practice:** Responding to the growing need for research, resources, and data, this group brings together practitioners from the public, private and non-profit sectors on climate change adaptation.





## Looking Ahead to 2013

The Climate Action Program continues to build momentum and capacity across the region on greenhouse gas mitigation and climate adaptation efforts. 2013 projects include:

- **The Regional Sustainability Strategy**, which incorporates several climate change mitigation and adaptation policies. An associated “blueprint” will provide actions and strategies for the CRD and its partners to undertake over the next decade.
- **BC Climate Action Charter Commitments.** The program will dedicate the first quarter of 2013 to support the CRD, municipalities and the Islands Trust in formal reporting associated carbon neutral obligations under the BC Climate Action Charter. The Climate Action Program will also deliver a 2012 greenhouse gas emissions inventory tool to municipal partners.
- **Sea Level Rise Mapping & Risk Assessment Project.** Using the new provincial sea level rise guidelines, the CRD will undertake a 2-year regional mapping and risk assessment project in partnership with Natural Resources Canada. The goals are to understand where we are vulnerable to sea level rise, provide technical information to municipal planning departments in establishing flood hazard construction levels and develop a model bylaw.



- **Tap by Tap Retrofit Program.**

Launching in March 2013, this program offers a direct installation retrofit for eligible multi-unit residential buildings. The goal is to retrofit 3,000 units with low-flow shower heads and faucet aerators, and provide free walk-through assessments for energy saving opportunities. Delivered in partnership with City Green Solutions, this program is funded by the CRD, BC Hydro and Fortis BC.

- **Climate Change Showdown Program.** This program, delivered through the BC Sustainable Energy Association, helps young people learn about climate change and take action to reduce greenhouse gas emissions in the classroom and at home. The CRD and local municipalities have committed to fund the program in 26 schools.



The CRD Student Climate Challenge

- **Ready, Set, Solve Program.**

Beginning in January 2013, eighteen teams of undergraduate students will solve real climate and energy related challenges from municipalities, non-profit organizations and institutions. An awards ceremony in April 2013 will celebrate the results of their work.