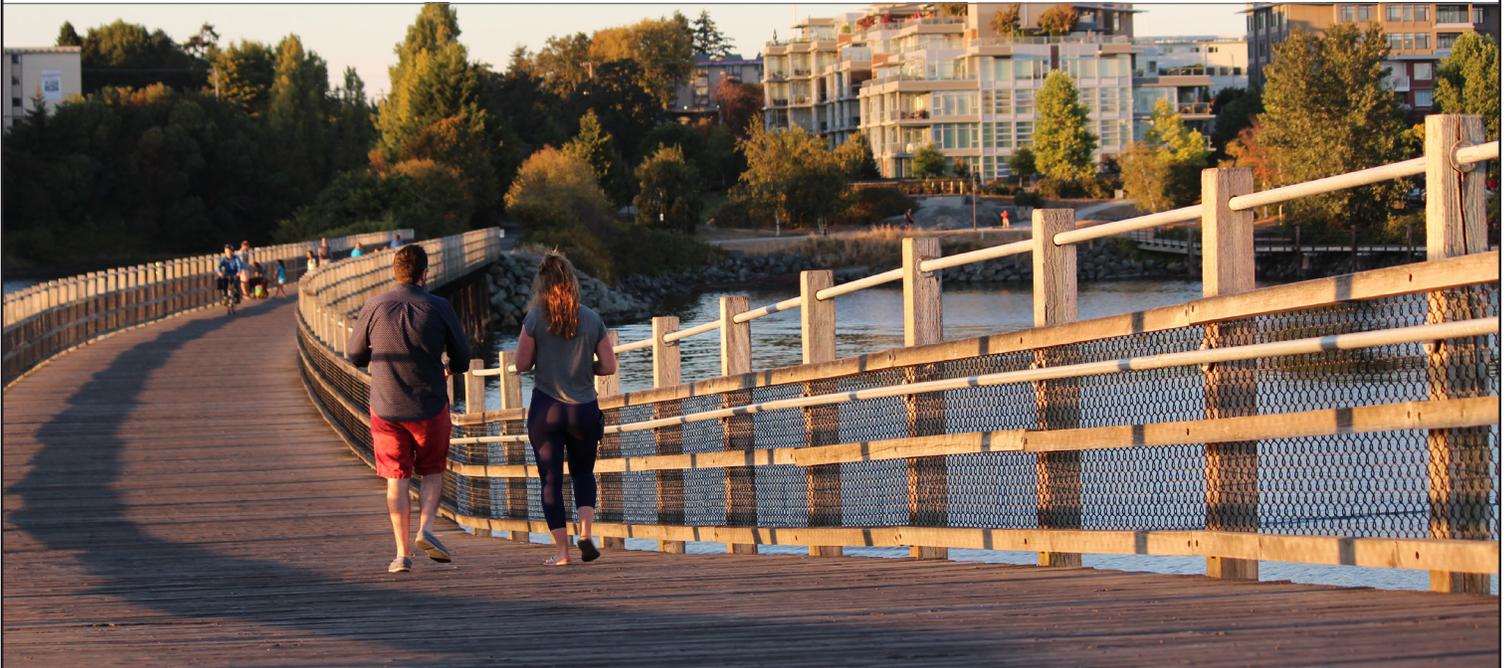


Climate Action Program 2016 Annual Report

CRD | Capital Regional District



Through the Climate Action and Adaptation Service Establishment Bylaw No. 3510, the **Capital Regional District (CRD) Climate Action Program (CAP)** serves the region by acting as a resource, hub and facilitator on 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, plans and programs under their community and corporate portfolios.
- Providing scientific information, data and indicators related to local and regional greenhouse gas (GHG) 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 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, including the climate-related CRD Board strategic priorities.

The contents of this report provide an overview of the CRD Climate Action Program's achievements from 2016.

Further information on the CRD's corporate climate activities can be found in the 2016 Climate Action Revenue Incentive Program (CARIP) Report available at www.crd.bc.ca

Table of Contents

- 1. WHY TAKE ACTION? 1
- 2. COMMITMENTS & REGULATIONS..... 1
- 3. CLIMATE MITIGATION: GREENHOUSE GAS EMISSIONS & TARGETS..... 2
 - Community GHG Emissions 3
 - Community GHG Reduction Targets 3
 - Direct and Indirect Control..... 3
- 4. CLIMATE ADAPTATION: BUILD RESILIENCE..... 4
- 5. CLIMATE ACTION PROGRAM OVERVIEW..... 5
 - Supporting Local Governments..... 5
 - Supporting CRD Corporate Operations..... 5
 - 2016 Climate Action Initiative Highlights..... 6
- 6. 2017 LOOKING AHEAD..... 8



Why Take Action?

Climate change is a critical issue facing our planet today. Whether it is impacts to our environmental, economic and social systems or human health, our communities will continue to be challenged with finding ways to reduce energy and emissions, while preparing for the climate of tomorrow. Although the challenges are real, they are not insurmountable. By taking action on climate change in the capital region, we can protect valuable resources like clean air and water, create jobs and maximize local economic development, reduce costs for homeowners and businesses, enhance quality of life, reduce our risks and create a more resilient future.

Commitments & Regulations

The CRD is required to take action to reduce corporate and community GHG emissions, and prepare for the impacts of climate change under the following provincial regulation and commitments:

- **Local Government (Green Communities) Statutes Amendment Act (Bill 27)** requires regional districts and local governments to include targets, policies and actions for the reduction of GHG emissions in Regional Growth Strategies and Official Community Plans. The Act also provides powers to local governments to support mitigation and adaptation through development permit areas, development cost charges and parking and building code requirements.
- All local governments in the region, including the CRD, became signatories of the **BC Climate Action Charter** in 2008. This includes a commitment to:
 - become carbon neutral in corporate operations starting in 2012
 - measure and report on our community's GHG emissions profile
 - work to create compact, complete, more energy efficient rural and urban communities
- Since 2009, the CRD has participated in the provincial **CARIP**.

By reporting annually on community and corporate climate actions, as well as corporate energy use, the CRD receives a rebate for the carbon tax it pays.

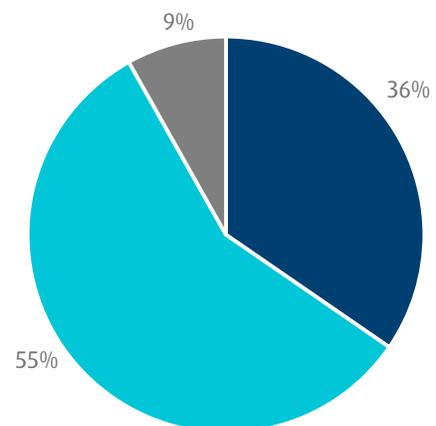


Climate Mitigation: Greenhouse Gas Emissions & Targets

The CRD provides data for the development of the provincial Community and Emissions Inventory (CEEI), an indicative inventory of energy consumption, GHG emissions and supporting indicators from **community activities related to on-road transportation, buildings and solid waste.**

The inventory was the first of its kind in North America and, though narrow in scope, it is useful in informing regional policies, programming and actions. It also helps local governments meet their BC Climate Action Charter commitment to measure and report on community GHG emissions profiles.

2010 Community GHG Emissions by Source
(Capital Region)



■ Buildings ■ On-Road Transportation ■ Solid Waste

Source: Community Energy & Emissions Inventory (CEEI, 2014), Province of BC

Community GHG Emissions

The most recent CEEI report, released in 2010, shows **the capital region emitted 1,552,234 tonnes of CO₂e**, with transportation largely responsible for region-wide emissions, followed by buildings and solid waste.

For a more complete picture of the region's energy and GHG emissions consumption, it is important to also consider additional contributors such as cross-jurisdictional transportation (e.g., air travel) and the import and export of goods, energy and resources.

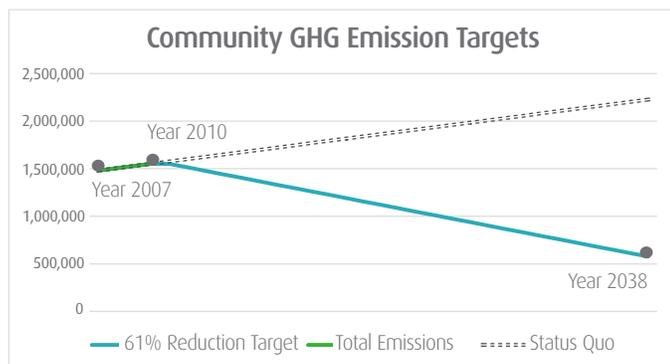
Community GHG Reduction Targets

The draft Regional Growth Strategy identifies a target for **the capital region to reduce GHG emissions by 61% (from 2007 levels) by 2038**. This ambitious target will require a decrease of 1 million tonnes of CO₂e.

Achieving this target will not be possible without a substantial policy shift and full-scale implementation of initiatives such as multimodal transportation, energy-efficient home retrofits, net-zero-energy-ready new construction, renewable energy technology adoption and waste reduction.

Even with substantial local and global GHG emission reductions, our region will be impacted by climate change. Consequently, we will need to look for opportunities to integrate adaptation into our mitigation activities to create a low-carbon and resilient region.

As one of several supporting documents to the draft Regional Growth Strategy, the **CRD Regional Climate Action Strategy** (approved in 2017) will focus on what CRD services can do within their current mandates to reduce community GHG emissions, and prepare for and adapt to climate change.



Source: Community Energy & Emissions Inventory (CEEI, 2014), Province of BC

Direct and Indirect Control

There is a clear role for local governments to take action on mitigation and adaptation, with an estimated **44% of Canada's GHG emissions within the direct or indirect control of local governments**. As climate change impacts increase in frequency and severity, many of the costs on infrastructure, social and economic systems and natural systems will be borne by communities.

Substantially reducing the region's emissions requires significant climate action by all. As an organization, the CRD recognizes that while it has direct control of an estimated 1% of community emissions, it has a valuable leadership role to play.



CRD Corporate GHG Emissions and Targets

In 2008, the **CRD Board committed to reducing operational GHG emissions by 33% by 2020**, compared to 2007 levels.

To support this goal and to adapt to climate change, in 2016, the CRD Board approved the creation of a Corporate Climate Action Analyst position housed in the CRD Risk & Insurance division, and approved the CRD Corporate Climate Action Strategy.

Reporting

CO₂e generated by the CRD's corporate operations and services in 2016 will be reported in the CARIP report posted to the CRD website by June 1, 2017, as required by the Province.

The CRD has been carbon neutral in its operations since 2012.



Climate Adaptation: Build Resilience

The climate is changing and the “new normal” for the region may be very unlike the past. Global climate models project an average increase of about 3°C in our region by the 2050s. The Pacific Climate Impacts Consortium (PCIC) has undertaken a comprehensive assessment of the projections of global climate models for our region. This assessment shows, as a result of global warming, the capital region will experience:

- hotter summer days and nights, longer summer dry spells with an extension of the dry season into September.
- milder winter days and nights, with a near loss of frost days and snowpack in all areas but the highest elevations in the region.
- stronger and more frequent extreme rainfall events.

Scientists also project the capital region will be impacted by sea level rise.

Without action, these changes threaten a variety of regional and local government services, as well as overall community health and wellbeing. The CRD will continue to consider the implications of a changing climate, share our learnings and continue to prepare.



Climate Action Program Overview

The CRD Climate Action Program, housed in the Environmental Protection division, provides direct support to local governments, the CRD and the general public.

The program operated on an annual budget of \$310,970 which included 1.7, full-time employees. The program's budget is provided through an annual requisition from all of the municipalities and electoral areas. The program also relies on external grants and partnerships to undertake community climate action programming.

In 2016, the CAP leveraged \$63,800 in external funding to assist program delivery and supported partners in obtaining \$13,500 for regional climate action programming.

Supporting Local Governments

Each community within the region has unique climate action priorities. To respond to the diverse and ongoing needs of local governments, the CRD coordinates the Climate Action Inter-Municipal Working Group and the Climate Action Inter-Municipal Task Force. Staff and elected officials participate in these groups to share information, collaborate, review current program deliverables and provide input on the direction of future work.

In addition to facilitating these groups, the CAP provided customized support to local governments, including:

- coordinating a Forum of All Councils on the urgency of climate change.
- assisting with the development of community plans, programs, information reports and education initiatives.
- providing background information to new staff working on climate-related issues.
- attending public events and open houses.
- providing assistance on GHG inventory and balancing projects.
- hosting or sponsoring capacity-building workshops on topics such as:
 - Surrey's Sea Level Rise Adaptation Strategy
 - fleet electric vehicle and charging infrastructure
 - ENERGY STAR® for New Homes for building officials and builders
- developing a Climate Projections for the Capital Region report, based on the work undertaken by the Pacific Climate Impacts Consortium, which will offer local governments a common understanding of the potential impacts of climate change to the region.



To facilitate further information sharing, the CAP produces a monthly e-newsletter that includes information, events, resources and funding opportunities for local government. Members of the Climate Action Inter-Municipal Working Group, the Climate Action Inter-Municipal Steering Committee and other interested local government stakeholders are included on the mailing list.

Supporting CRD Corporate Operations

While implementation of climate action remains the responsibility of each CRD department, the CAP provides support to departments on an as-needed basis. This includes, but is not limited, to:

- providing messaging for public outreach campaigns.
- disseminating climate mitigation and adaptation information to CRD departments.
- linking information from higher levels of government to operational needs and opportunities.
- supporting the development of relevant CRD-led planning documents (such as the Regional Growth Strategy, strategic plans, etc.).
- assisting CRD Environmental Engineering to include climate action in the Core Area Inflow and Infiltration Management Plan.
- supporting the CRD Corporate Climate Analyst on the development of the Corporate Climate Action Strategy and the CRD Zero Emissions Fleet Initiative.



2016 Climate Action Initiative Highlights

The CAP has a diverse portfolio that is shaped by the priorities and interests of the CRD Board and our partner local governments. Staff directly engaged more than 5,500 citizens and supported local organizations and businesses in climate change actions and awareness.

Oil to Heat Pump

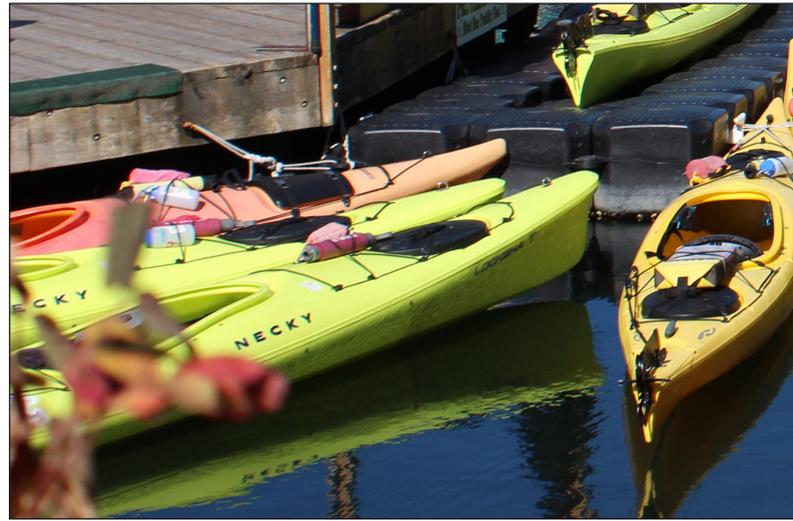
INCENTIVE PROGRAM



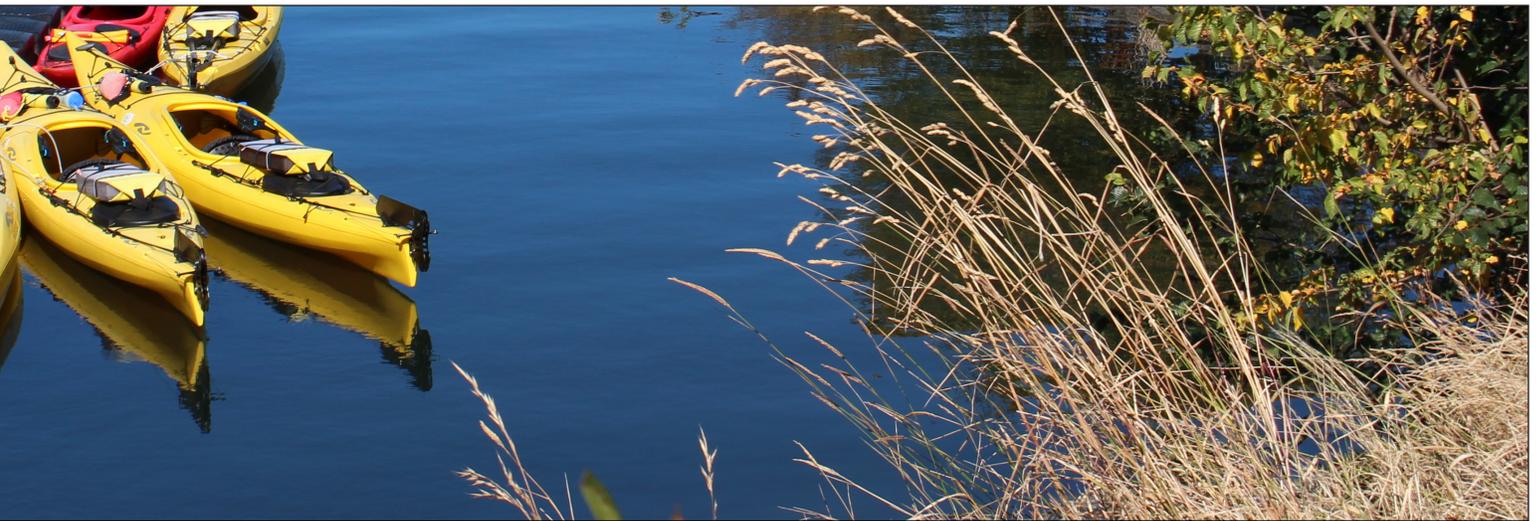
CLIMATE ACTION T-O-G



The CRD Student Climate Challenge



- Consulted with CRD Services, the CRD Climate Action Inter-Municipal Working Group and Steering Committee, CRD Roundtable on the Environment to develop a **draft CRD Regional Climate Action Strategy**, a companion document to the draft Regional Growth Strategy. The Strategy highlights a number of climate actions that CRD services can do, within their mandates, to support community climate action efforts. The Strategy is being developed to align with federal, provincial and regional initiatives to ensure a coordinated approach that identifies opportunities and maximizes region-wide benefits. In November 2016, the CRD Board referred the draft Strategy to the **Forum of All Councils on the urgency of climate change** for input from the region's leaders.
- Contributed to the development and promotion of the **Adapting to Climate Change on the British Columbia Coast video series**. The series provides an introduction to living with climate change on the BC Coast, with special attention to three subject areas: Coastal Flood Management; Rainwater Management; and Water Conservation. The actions shown in the video series have benefits that extend beyond resilience to climate change.
- Developed the **draft Climate Projections of the Capital Region report**, with assistance from CRD services and regional local governments' staff. The report is based on the comprehensive assessment of the projections of global climate models for the region undertaken by the Pacific Climate Impacts Consortium to understand details of how its climate may change by the 2050s and 2080s. The draft report provides a summary of the results of the assessment and additional information that can be used to plan and adapt to the changes ahead. The report updates the previous Georgia Basin Projected Climate Change, Extremes and Historical Analysis (Georgia Basin Study) 2012 report and is a resource for planners, engineers, land use managers, policy makers and decision-makers.



- Offered 185 top-up incentives (\$150 each), through a partnership with CRD Integrated Watershed Management Program, to capital region residents participating in the provincial **Oil to Heat Pump Incentive Program**. Homeowners are encouraged to replace oil tanks with electric heat pumps, one of the most impactful ways to reduce home heating GHG emissions and protect the region's waterways. A further 90 incentives were coordinated on behalf of the District of Saanich. Top-up incentives were offered in 2016 on a first-come, first-served basis. Delivered by City Green Solutions.
- Hosted the **Resilient Region Exchange Breakfast Series**. Building on 5 years of success, this quarterly breakfast meet-up is designed to bring together regional stakeholders working on climate and sustainability issues in the region. With 60-70 community members (from general public, local government, business, public sector and non-profit organizations) attending each meeting, and approximately 600 online members, this series has earned a reputation for partnership development, project incubation and community building. In 2016, the series was made possible, in part, due to a funding partnership with BC Hydro.
- Collaborated with the not-for-profit Scout Environmental, to promote the **Smart Drive Challenge Pilot Program**. The initiative is a data-driven program designed to engage, educate, challenge and motivate drivers to drive better (more efficiently) and drive less (reduced distance). Across the region, 50 participants took part in the pilot, resulting in a 16% total reduction in fuel and GHG emissions.
- Installed free high-efficiency faucet aerators and pre-rinse spray valves in commercial kitchens, using natural gas heated hot water, through the **Food Service Establishment Water, Energy and GHG Savings Program**. Delivered in partnership with FortisBC and the CRD Water Conservation Program, with support from the City of Victoria by City Green Solutions, the program also provides a complimentary Water, Energy and Waste Reduction Opportunities Assessment to help businesses identify further opportunities for savings.
- Partnered with the region's libraries to offer the **Climate Action To-Go Kit Program**. Each kit includes books, videos, energy efficiency tools, LED light bulbs and select print materials geared for homes. Since 2014, the program has expanded each year with the development of a 2.0 "Lifestyle" kit in 2016. Currently 24 kits are in circulation with 20 more being developed. This initiative has been made possible, in part, due to a funding partnership with BC Hydro.
- Provided the **Planet Protector Academy** climate action program in local schools between January and July 2016. Offered in partnership with DreamRider Productions, 27 classes participated in the program, engaging a total of 706 elementary students and their families (over 2,000 people total) to take action on climate change. Following the program, 55% of families reported they are now switching off lights more, 61% are taking shorter showers, 66% are idling less, 64% are speeding less and 59% are driving less. Furthermore, 80% of participating teachers agreed the resource helped develop students' motivation and personal responsibility for protecting the planet.
- Offered the **Ready, Set, Solve Program** with support from BC Hydro, Camosun College, the University of Victoria and in-kind support from the CRD Environmental Partnerships division. CAP staff coordinated student recruitment, hosted a kick-off workshop and celebration ceremony for 42 post-secondary students who signed up to solve 13 climate-related challenges submitted by local governments, not-for-profits and institutions. A judging panel and challenge hosts evaluated the final projects, some of which were implemented upon submission.



Looking Ahead - 2017

In 2017, the CAP will continue to support the CRD and local governments in their climate action goals, while undertaking projects that reduce community and corporate emissions, and better prepare our region for climate changes. Planning includes a number of projects, such as:

- **Stepping Up to the Energy Step Code Program.** With funding from BC Hydro Sustainable Communities, the CAP will support industry and local government education on the new voluntary regulation, the BC Energy Step Code. This ground breaking climate and energy provincial tool will allow builders and local governments to participate in the transition to net zero buildings.
- **Cool It! Climate Leadership Training.** Working with the non-profit BC Sustainable Energy Association, the CAP will offer educational programming (free-of-charge) that encourages students in grades 4-7 to take action to reduce energy use and emissions at home.
- **People Power, Active Transportation and Healthy Communities Program.** The CAP will continue to provide promotional support for this initiative led by the CRD Regional and Strategic Planning division, made possible with support from the Victoria Foundation, the Traffic Safety Commission and the Real Estate Foundation. The program focuses on motivating, supporting and encouraging residents to safely walk, roll and cycle more often, and runs in tandem with community-led infrastructure investments and data collection programs across the region.
- **Growing Solutions Planting Schedule.** Building off the success of the Growing Solutions Fresh Food Calendar, the CAP will finalize and promote a planting schedule resource that supports residents growing local food and maximizing their backyard harvest.
- **BC Climate Action Charter Refresh.** As part of the Green Communities Committee Joint Provincial-UBCM Adaptation Working Group, the CAP will provide input into the refresh of the BC Climate Action Charter, a key commitment in the BC Climate Leadership Plan.

In addition, the Climate Action Program also intends to finalize the Regional Climate Action Strategy and the Climate Projections for the Capital Region report, and continue the Resilient Region Exchange Breakfast Series, Climate Action To-Go Kits in regional libraries, the CRD Oil to Heat Pump Top-Up Incentive and Food Service Establishment Water, Energy and GHG Savings programs.

Capital Regional District

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