

2022 Climate Action Progress Report

Taking Action on the Climate Emergency



TERRITORIAL ACKNOWLEDGEMENT

The CRD conducts its business within the traditional territories of many First Nations, including but not limited to BOKÉĆEN (Pauquachin), MÁLEXEŁ (Malahat), P'a:chi:da?aht (Pacheedaht), Pune'laxutth' (Penelekut), Sc'ianew (Beecher Bay), Songhees, STÁUTW (Tsawout), T'Sou-ke, WJOLEŁP (Tsartlip), WSIKEM (Tseycum), and x^wsepsəm (Esquimalt), all of whom have a long-standing relationship with the land and waters from time immemorial that continues to this day.



Organizational Overview

The Capital Regional District (CRD) delivers regional, sub-regional and local services to 13 municipalities and three electoral areas on southern Vancouver Island and the Gulf Islands. Governed by a 24-member Board of Directors, the CRD works collaboratively with First Nations and all levels of government to enable sustainable growth, foster community well-being, and develop cost-effective infrastructure, while continuing to provide core services to residents throughout the region.

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Overview

In 2021, the CRD renewed its Climate Action Strategy and committed to annually reporting on all climate action related activities undertaken by the organization. This report summarizes all 2022 activities and other annual indicators identified in the CRD's Climate Action Strategy.

Regulations and Commitments

The CRD is required to take action to reduce corporate and community-related greenhouse gas (GHG) emissions and prepare for the impacts of climate change under the following provincial regulations and commitments:

- Local Government (Green Communities) Statutes Amendment Act 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.
- Landfill Gas Management Regulation establishes province-wide criteria for landfill gas capture from municipal solid waste landfills. The regulation focuses on GHG emissions from landfills, with the objective of maximizing reductions of landfill gas emissions and identifying potential opportunities to increase landfill gas recovery. As a manager of the Hartland Landfill, the CRD is responsible for adhering to this regulation.
- All local governments in the region, including the CRD, are signatories of the BC Climate Action Charter. This includes a commitment to:
 - become carbon neutral in corporate operations
 - measure and report on the community's GHG emissions profile
 - work to create compact, complete and more energy-efficient communities
- United with more than 350 Canadian local governments, the CRD is a member of the Partners for Climate Protection Program, from the Federation of Canadian Municipalities and ICLEI - Local Governments for Sustainability, affirming its ambitious GHG reductions and participating in a five-milestone planning, implementation and reporting framework.

CRD Climate Action & Adaptation Service

Under Bylaw No. 3510, the CRD established a climate action service in 2009 to act as a resource and facilitator for the CRD, local governments, citizens and organizations in the capital region on energy and climate issues. The service hosts two inter-municipal networks, closely works with local government staff, senior governments, utilities and other stakeholders to identify other climate action opportunities and to advance initiatives in collaboration. The Climate Action Service has five main focus areas:

- provide support to local governments in developing and implementing climate action plans, programs and policies
- catalyze action through partnerships with public and private sectors, non-governmental organizations and community organizations and increase public awareness of climate change issues
- liaise with senior levels of government on climate change-related programs, policies and legislation that impact the capital region
- provide scientific information, data and indicators related to local and regional GHG emissions and projected climate impacts
- support the CRD in fulfilling its corporate climate objectives and support execution of climate-related Board priorities

Climate Action Strategy

Climate action has been a CRD Board priority since 2009. The CRD is committed to taking action to address climate change within its own operations, and at the regional level, to reduce emissions and prepare for climate impacts. This was highlighted in the Board's declaration of a climate emergency in early 2019. In response to this declaration, the CRD developed an updated five-year Climate Action Strategy in 2021.

The Climate Action Strategy provides a clear path forward for how the CRD, under its service mandates, will show leadership on climate action, both for the CRD's corporate operations and for its community-focused services. The strategy coordinates with other CRD plans and strategies and supports the overarching Regional Growth Strategy.

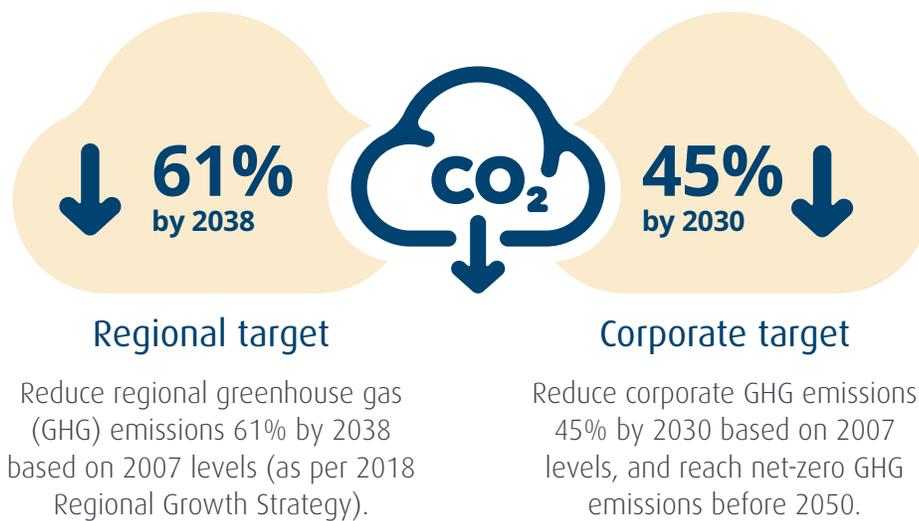


Fifth floor view from the CRD Fisgard office building

Climate Action Vision

Through collective action, we eliminate emissions and foster healthy and resilient communities and natural areas now and in the future.

This vision recognizes that the CRD must act in concert with many partners to address the climate emergency, ensuring the region is minimizing its contribution to climate change while also preparing for the changes that have already begun. In this context, “we” is inclusive of all governments, First Nations, businesses, institutions, organizations and residents.



Targets and Goals

The CRD’s Climate Action Strategy outlines a pathway toward net-zero emissions by mid-century, in line with the Intergovernmental Panel on Climate Change modelled pathways to limit warming to a 1.5°C change this century. It also established six goal areas where the CRD will focus its efforts.





Taking the bike lane, Wharf Street, Victoria, BC

Tracking Our Emissions

The CRD undertakes greenhouse gas accounting on a regular basis to understand our emissions portfolio.

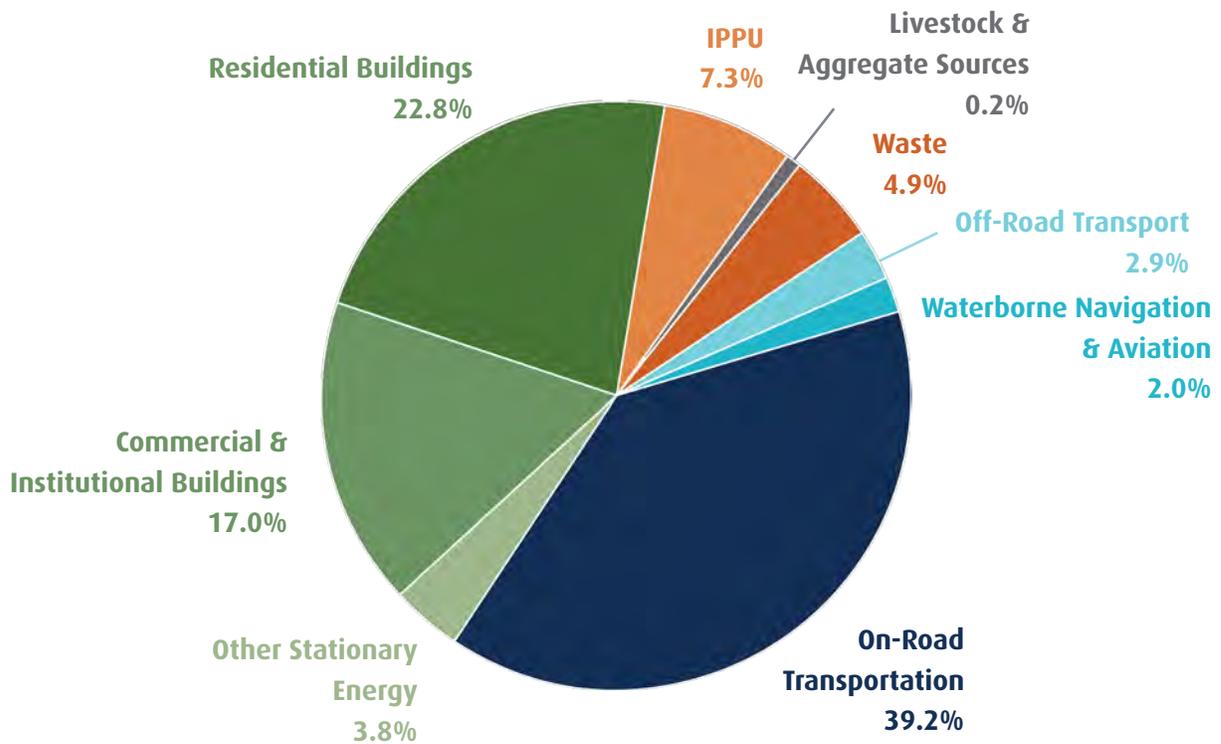
Community Emissions

In 2021, the CRD completed an emissions inventory and report for the 2020 calendar year, building on a 2018 inventory. This followed the internationally recognized Global Protocol Community-Scale GHG Inventories BASIC+ Framework, and included GHG emissions from: stationary energy (e.g., buildings), transportation (e.g., commuter vehicles), waste (e.g., landfills), industrial processes and product use (IPPU) (e.g., chemical industry), and agriculture, forestry and other land use (e.g., fertilizer application).

The 2020 inventory indicated the capital region emits approximately 1.8 million tonnes of CO₂e annually. This represents a 9.8% reduction from 2007 levels and a 5.2% reduction from 2018. These reductions are largely associated with the decrease in transportation-related emissions due to the early 2020 COVID-19 pandemic response. On-road transportation and the built environment remain the main sources of regional emissions, together accounting for approximately 79% of all emissions in 2020.

Energy use indicators from on-road transportation and the built environment suggest that emissions will be higher in 2022 than in 2020. CRD staff intend to produce a 2022 GHG inventory in late 2023.

2020 Capital Region Community Energy Emissions



To achieve the CRD's regional GHG emission reduction target of 61% reduction by 2038, the region, and all key players, including senior levels of government, local governments, residents, business, industry and organizations, must continue to advance key initiatives, including:

- increase uptake of transit, walking, cycling and other modes of active transportation
- accelerate adoption of zero-emissions vehicles
- retrofit existing buildings, improving energy efficiency and converting fossil fuel heating systems to electric
- transition to construction of net-zero ready new buildings

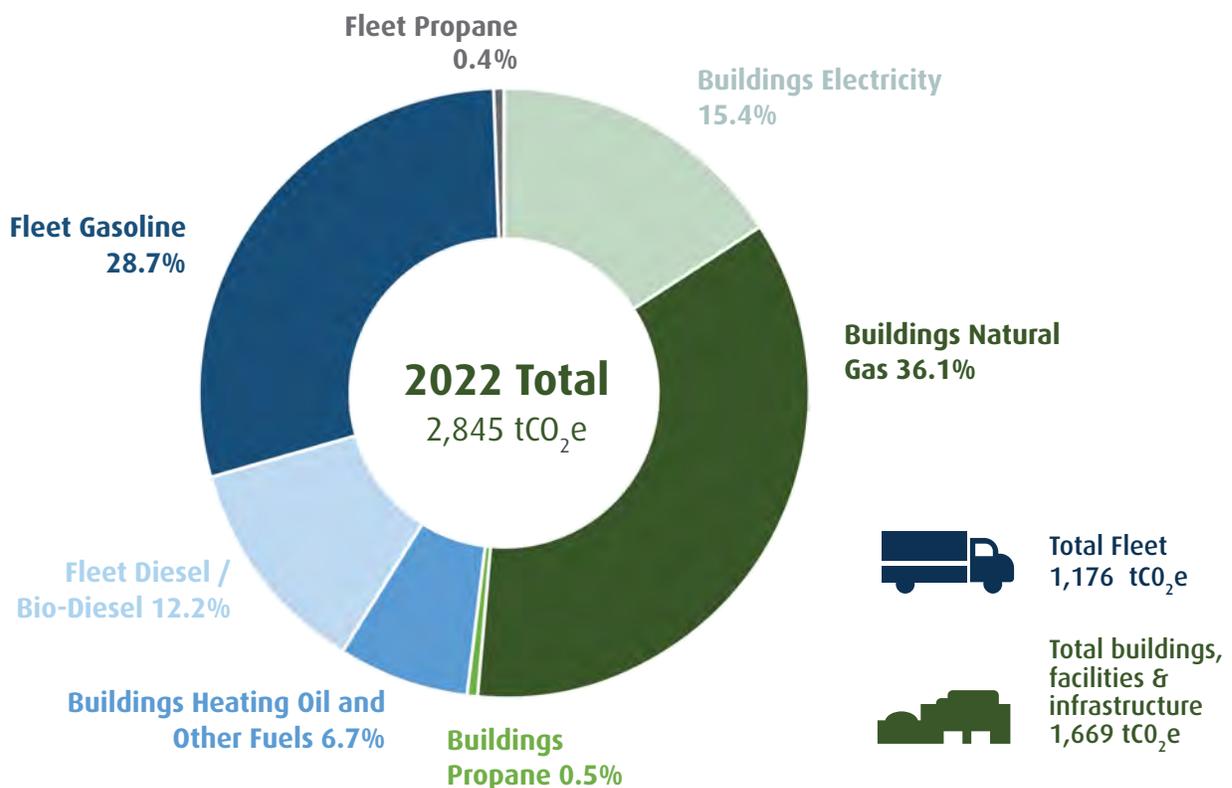
Corporate Emissions

In 2022, CRD operations generated 2,845 tonnes of CO₂e emissions, with 1,176 tonnes associated with the vehicle travel and 1,669 tonnes coming from facilities and infrastructure. Emissions associated with Hartland Landfill and the Capital Region Housing Corporation are not included in this total, as they are excluded from the provincial reporting framework. This represents a 1% increase from 2021 and a 6% decrease from the baseline level of emissions from 2007. It should be noted that the reported emissions from 2021 were reduced because of BC Hydro's emission factor being updated.

Emissions from vehicle travel decreased by 10% in 2022 compared to 2021. This is a result of reduced single-passenger vehicle travel, as this was a COVID-19 restriction, and the procurement of several electrical vehicles, including two ice resurfacers at Panorama Recreation Centre.

Overall emissions from facilities increased by 11% in 2022 compared to 2021. A significant portion of this increase is a result of fuel oil being used at the SEAPARC facility; this was required due to the natural gas boiler experiencing operational issues. A replacement high-efficiency natural gas boiler was installed and commissioned at the SEAPARC facility in February 2023. Facilities emissions also increased due to a rise in electrical consumption because of increased usage at sites that were temporarily closed due to COVID-19, an unseasonably cold November, and an increase in energy used through the full onboarding of the McLoughlin wastewater treatment plant.

2022 Operational Greenhouse Gas Emissions by Source

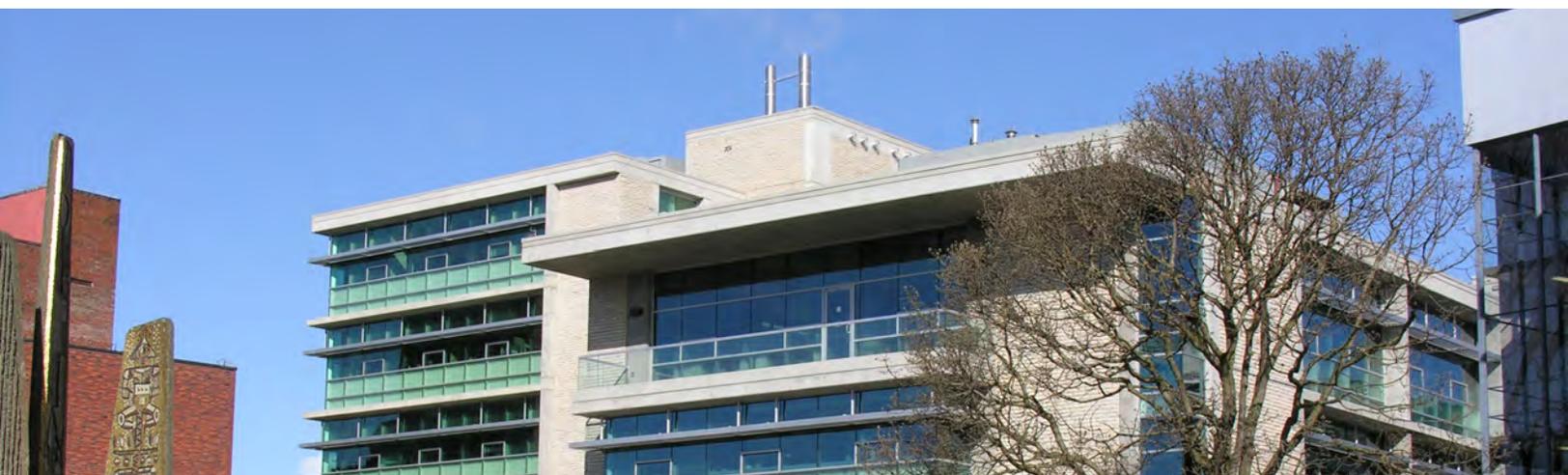
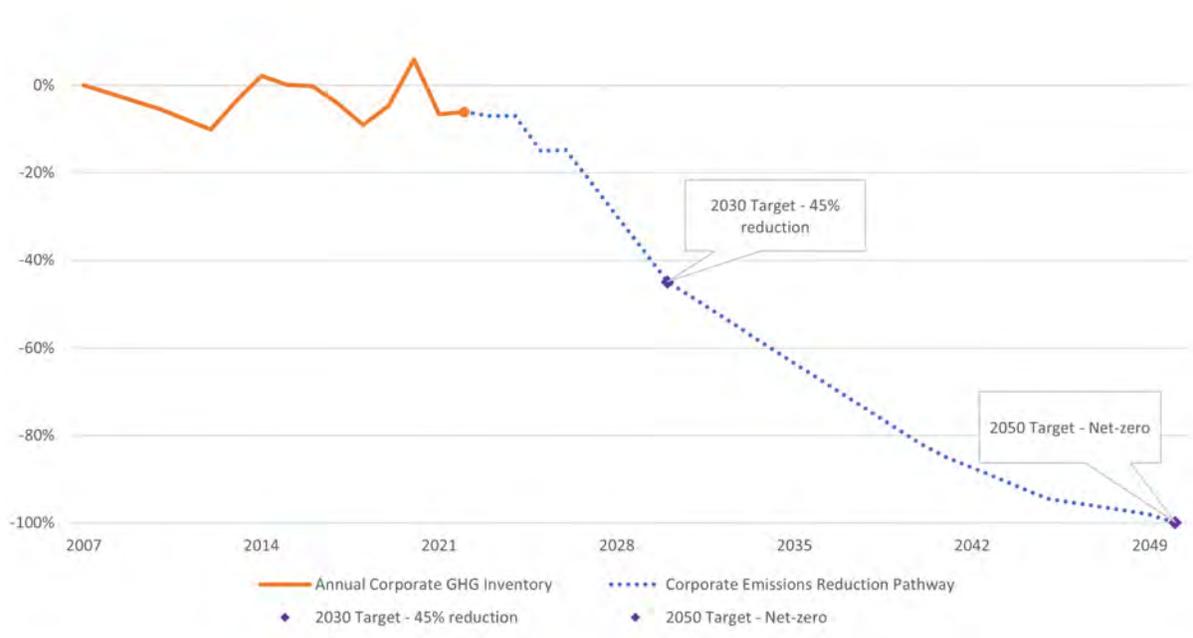


*Currently, electric vehicle charging is included in building electricity use.

The graph below illustrates the reported 2022 emissions and the updated 2021 emissions on the corporate emission reduction pathway laid out in the Climate Action Strategy. To continue to follow the pathway and begin to decrease emissions and meet corporate GHG targets, the CRD will continue to focus on accelerating the following critical actions in upcoming years:

- procurement of electric and plug-in hybrid vehicles for the CRD fleet
- decarbonization at key CRD facilities, including Panorama Recreation Centre, SEAPARC, CRD Fisgard Headquarters, and Integrated Water Services Headquarters
- pursuing an annual 5% improvement in electricity efficiency through energy audits

CRD Corporate CO₂e Emissions (2007 to 2022) and Climate Action Strategy Pathway and Targets



View of CRD Headquarters from Centennial Square, Victoria, BC

Adapting to Climate Impacts

The changing climate has brought severe weather patterns to the capital region, all within the last two years. 2021 brought an unprecedented heat dome, as well as heavy rains and flooding, and in 2022 we experienced an extended drought. As a result of climate change, climate modelling indicates that the region will continue to experience:

- more extreme climate events (such as long, hot and dry summers)
- an increase in rainfall in fall, winter and spring; and a decrease in rainfall in summer
- more intense, longer-lasting and more frequent rainfall events
- frequent heavy snowfalls and rain-on-snow events in the short-term, less snow in the future
- hotter summers and less days with freezing in winter
- increased likelihood of variability of climate within and between years
- sea level rise



The CRD has a number of services that support climate resilience, including: maintaining drinking water supply and wastewater services, regional planning functions, regional parks, harbours, watersheds and invasive species related programs, and supporting emergency management coordination and healthy community planning. The CRD is working to adapt to the changing climate in our service areas by identifying vulnerabilities, strategies and actions so that we can improve how we anticipate, respond to and recover from both extreme weather events and the gradual changes occurring over time.



Second floor, green roof patio, CRD Headquarters

Progress on the CRD's Five-year Action Plan

The CRD's Climate Action Strategy established six key goal areas, 56 actions and 127 sub-actions that will be undertaken by several different services across the organization between 2021 and 2025. The strategy also outlined several indicators to help measure success and to track important trends.

The following sections are intended to provide a high-level, easy-to-understand overview of the CRD's performance and progress related to climate action, and to summarize progress made in the 2022 year for each goal area. More information, including details on the scoring methodology and actions within each goal area, is contained in Appendix A: Climate Action Report Card.

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2022 Overall Action Plan Progress

Opportunity for Improvement

The climate action strategy identifies 127 actions with specific timelines across the organization. Scores are based on the current status of each action within their goal areas.



Corporate Actions

Opportunity for Improvement



Community-Focused Actions

On Track

Goal Area



Goal 1: Climate-Focused Decision Making



Goal 2: Sustainable Land Use, Planning and Preparedness



Goal 3: Low-Carbon Mobility



Goal 4: Low-Carbon and Resilient Buildings and Infrastructure



Goal 5: Resilient and Abundant Nature, Ecosystems and Food Systems



Goal 6: Minimized Waste

Legend: Action Status



On Track: 75% or greater of yearly target progress



Opportunity for Improvement: 50% - 75% of yearly target progress



Attention Required: less than 50% of yearly target progress



Future Action

Legend: Indicators*



Direction of arrow indicates **current trend direction**



Indicator is trending in the **desired direction**



Indicator is trending in the **wrong direction**



Indicator is intended to provide **contextual information**

* While indicators are not considered in the calculation of the action status, they provide context and track long-term progress.



Climate-Focused Decision Making

Goal 1: Climate action priorities are integrated at all levels of decision making across the organization.



Overall Action Status

Opportunity for Improvement

To provide its wide range of services, the CRD maintains and operates vehicles, equipment, buildings, facilities, infrastructure, landfills, trails and parks. Decisions made in each service area can have implications for greenhouse gas (GHG) emissions generated or sequestered by CRD assets over time, as well as how prepared these assets are for the changing climate. The CRD has also identified the need to improve the organizational understanding of Indigenous knowledge, laws and perspectives in relation to climate solutions.

Although good progress has been made in this goal area, the overall action status shows opportunities for improvement in areas related to procurement approaches, staff capacity building and understanding of indigenous knowledge.

Goal Progress Summary

- Integration of a climate lens into decision making was advanced with the development of a draft corporate green building policy and an internal carbon price policy (to be approved in 2023).
- A climate lens is being applied in the Asset Management Strategy, incorporating GHG emissions and climate impacts, and development of an asset management life-cycle assessment tool is underway that will support evaluations that consider the multiple priorities of the CRD.
- Internal capacity building focused on key staff and targeted introductions to the draft green building and carbon pricing policies.
- The internal Climate Action Reserve Fund, established to advance corporate climate priorities, directly supported the GHG Reduction Pathway for three recreation centres, electric vehicle charging station planning efforts and the installation of a demonstration heat pump.

CRD Roles

Operational decision making

This goal contains

15

sub-actions



- Indigenous perspectives on climate change concerns have been shared by First Nations in engagement with CRD staff in relation to wastewater treatment, food security, regional parks, heritage site management, cumulative impacts and collaborative governance arrangements. More work is needed to learn how indigenous knowledge can inform climate action in the region.

Indicators



**Annual CRD corporate
greenhouse gas
emissions**

• 2,845 tCO₂e (1% increase compared to 2021)



Cyclist along the Galloping Goose Trail



Sustainable Land Use, Planning and Preparedness

Goal 2: Support the region on its pathway to livable, affordable and low-carbon communities that are prepared for climate change.



Overall Action Status
On Track

How land use is managed has a strong influence on regional emissions, by affecting how far we travel to daily amenities, school and work, how we choose to get to those places, as well as affecting how much land can be protected as carbon sinks. The 2018 Regional Growth Strategy sets a regional vision and high-level policies for growth management. The key provision is to contain 95% of growth in designated areas, and to concentrate growth in a way that is connected. In addition to land use, planning and preparedness efforts across the region are important to increase the resilience of the region by increasing our ability to cope with hazardous or emergency events and other impacts that result from a changing climate.

The majority of sub-actions in this goal area are well progressed, resulting in an on-track overall action status.

Goal Progress Summary

- With support from municipal partners, the Climate Action Service received a grant of \$150,000 from the Union of British Columbia Municipalities to gather and analyze data to develop a Capital Region Extreme Heat Vulnerability Mapping Dashboard in 2023, supported by an inter-municipal team.
- The CRD's Community Health Network established a research partnership with UVic's School of Public Administration to explore the impact different climate events have on the health outcomes of vulnerable groups within the capital region.
- Established funding and resourcing in relation to the feasibility of mobility hub development in key locations across the region, in partnership with the Ministry of Transportation and Infrastructure.

CRD Roles

Regional planning

Juan de Fuca land use planning

Emergency management in electoral areas

Inter-municipal coordination

Data management

This goal contains

24
sub-actions



CRHC Spencer Close apartments, Langford, BC

- Continued to monitor the Regional Growth Strategy (RGS) and established a process for Regional Context statement reviews in which municipal climate policies are reviewed in relation to RGS goals.
- Advanced planning for wildfire in the Electoral Areas (EA), including work on a community wildfire resiliency plan, passing of an open burning bylaw in the Juan de Fuca and Southern Gulf Islands EAs and development of community evacuation guides for all EAs.
 - The EA FireSmart program has been markedly expanded with the successful completion of several grants and award of new grants, including the contracting of a FireSmart Coordinator to lead the local initiatives and training.
- Continued to facilitate and administer several inter-municipal networks that serve to coordinate regional climate action, set priorities and disseminate resources, including the Climate Action Task Force and Climate Action Working Group, Development Planning Advisory Commission, Local Government Emergency Program Advisory Committee, the Regional Emergency Management Partnership and the Healthy and Safe Environments Community Health Network.

Indicators



Number of net new dwelling units in areas where more than 42% walk/bike/bus to work*

- Currently, the region is not meeting the desired trend.

**Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.*



Neighbours help neighbours be FireSmart, with Salt Spring Island Fire Rescue and CRD FireSmart



Low-Carbon Mobility

Goal 3: Rapidly reduce corporate fleet emissions. Support, endorse and encourage active, public and zero-emission transportation options across the region.



Overall Action Status
On Track

On-road transportation is the region’s largest source of GHG emissions. Not only do vehicles release significant emissions, they also lead to increased traffic congestion in peak periods. Shifting from a vehicle focus to a low-carbon mobility focus means improving the options to get more people walking, biking and taking transit. For trips that use a vehicle, rapidly switching to electric vehicles (EVs) will require building out charging infrastructure throughout the region – making sure it is accessible to those who live in all types of homes and at key locations across the region. The CRD owns and operates a fleet of approximately 300 vehicles to provide its many services across the region, and can reduce its GHG emissions by greening its fleet.

The sub-actions in this goal area are well progressed, resulting in an on-track overall action status. A key challenge is that significant supply chain delays have made EVs challenging to acquire.

Goal Progress Summary

- Implemented the new corporate Green Fleet Policy while adjusting for significant supply chain delays. Was awarded a Zero Emission Vehicle Infrastructure Program grant to enable implementation of the charging framework.
- Established a partnership with the Community Social Planning Council to look at gender equity and safety on CRD trails and received a grant to investigate the development of bike skills for equity-seeking groups that are underrepresented on CRD trails.
- Administered the Origin Destination Household Travel Survey. Collected data will be analyzed and shared in 2023 to inform decisions on future transportation options for the region.

CRD Roles

- CRD fleet
- Regional trail system
- Regional planning
- Electoral area transportation
- Data management
- Community programs

This goal contains

31
sub-actions



- Hired an Electric Mobility Coordinator to support the implementation of the Capital Region electric vehicle (EV) Infrastructure Roadmap. Submitted a \$7 million grant to advance regional EV public charging network.
- Continued implementation of the Regional Transportation Plan and established a regional Transportation Working Group with a core mandate of working toward consistent and connected cycling facilities, per the regional transportation priorities.
- Supported acceleration of transit improvements and increased service, including approval of transportation priorities of Bus Mass Transit (RapidBus) to connect downtown and Westshore, as well as increasing the number of suburban park & rides.
- Sought grant funding for Galloping Goose Regional Trail enhancements (widening and lighting) and critical infrastructure improvements. Initiated Selkirk Trestle repairs; completed Phase 3 of the E&N Rail Trail and initiated Phase 4.
- Commenced Salt Spring Island Active Transportation Plan and continued to implement the Gulf Islands Trails Management Plan.

Indicators



Regional EV Infrastructure Roadmap implementation

- Level 2 ports: 38% (296 installed)
- DCFC ports: 27% (35 installed)



Percentage of the Regional Trail Network completed*

- 48% (increase of 1,000m)



Annual EV ICBC registrations (region fleet size)

- 7565, 2.51% of total registrations (0.25% increase compared to 2021)



Annual CRD corporate fleet GHG emissions

- 1,176 tCO₂e (10% decrease compared to 2021)



Number of corporate EVs purchased

- 26 EVs on order (9 previously purchased)

*Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.



Charge Your Ride event at Camosun College, 2022

Charge Your Ride Campaign

A region-wide outreach campaign, Charge Your Ride was launched in 2022 to encourage the adoption of electric vehicles (EVs) and electric bicycles (e-bikes). The campaign directly engaged over 3,800 residents at 20 community events and three large test-drive and ride events across the region.

Charge Your Ride was made possible thanks to a \$225,000 federal grant. The CRD also offered four free e-bike courses at various locations throughout the region for residents to get more comfortable with riding an e-bike safely and launched the second phase of the Charge Your Ride program, with a focus on capacity building for electricians, automotive technicians, fleet managers and strata owners.



Environmental Outreach Assistants running Charge Your Ride events, Summer 2022



Low-Carbon and Resilient Buildings and Infrastructure

Goal 4: Accelerate energy efficiency, emission reductions and enhanced resilience in CRD buildings and infrastructure. Support and encourage the same for all buildings and infrastructure across the region.



Overall Action Status
On Track

A large portion of our regional GHGs come from energy used in buildings across the capital region, almost all of which is from fossil fuels for space heating and hot water. Shifting from relying on fossil fuels for space heating and hot water and improving the energy efficiency of our buildings are key to achieving GHG reduction targets and can support resiliency measures. As the climate changes, it is increasingly important to prepare buildings and infrastructure. The capacity of infrastructure to be resilient to climate impacts must be considered, such as increased stormwater flows, power interruptions, poor air quality and heat waves.

The majority of sub-actions in this goal area are well progressed, resulting in an on-track overall action status. Planning for corporate carbon reductions is underway and will be realized in future years.

Goal Progress Summary

- Completed a Strategic Energy Management Plan for the organization.
- Completed energy audits for seven sites in the CRD portfolio and initiated net-zero energy pathway feasibility studies for Panorama Recreation Centre, SEAPARC Leisure Complex and Rainbow Road Recreation Centre. Secured a \$148,000 Federation of Canadian Municipalities grant to support this work.
- Pursuit of climate-friendly development and retrofits for Capital Regional Housing Corporation included efforts to secure grant funding for energy and GHG reductions, as well as embedded energy reductions in the design phase on new construction, including new performance targets set by the BC Housing Design Guidelines and Construction Standards. Three new housing development projects will achieve Step 4 under the BC Energy Step Code.

CRD Roles

CRD buildings and infrastructure

Building inspection in electoral areas

Data management

Community programs

This goal contains

30

sub-actions over the next five years



Seaparc Leisure Complex, Sooke, BC

- Launched the Home Energy Navigator program to support residents undertaking home energy upgrades. The program is committed for five years. 160 participants have signed up for the program as of the end of 2022.
- Supported climate leadership training workshops through the BC Sustainable Energy Association for students in the region, as well as promotion of BC's home heating fuel switch rebate program.
- Coordination of high-performance building policy support and capacity building included participation on provincial Step Code Local Government Peer Network and work with several municipalities that adopted the BC Energy Step Code to coordinate next phase Step Code industry consultation activities.
- Promotion of green infrastructure included webinars on rainwater capture and installing residential rain gardens, a green stormwater management symposium for local government and development of rural stormwater management workshops for agricultural properties.
- The 2022 Regional Water Supply Master Plan was developed and used regional climate projections to evaluate risks to future water availability.

Indicators



Regional Energy Retrofit Program implementation

- 160 participants have signed up as of the end of December 2022



Annual CRD corporate facilities greenhouse gas emissions

- 1,669 tCO₂e (11% increase compared to 2021)



McLoughlin Point Wastewater Treatment Plant, Victoria, BC (Facility interior with staff pictured right)

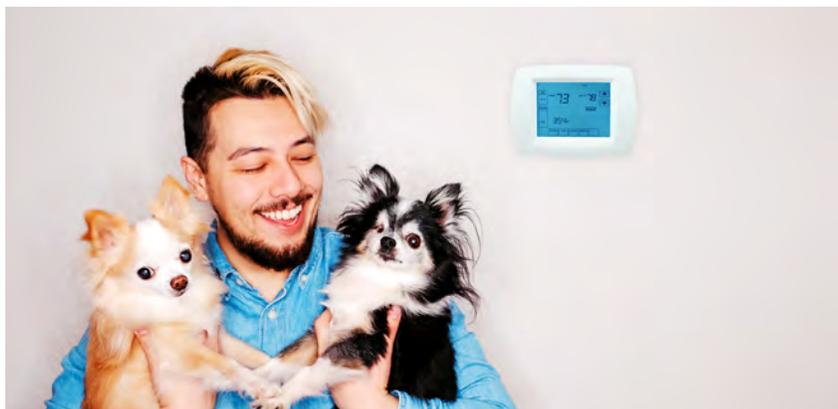
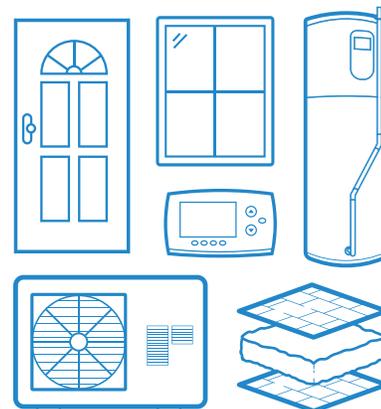


Family home in James Bay utilizing heat pumps to heat and cool their home

Home Energy Navigator

In November 2022, the Home Energy Navigator program launched to support residents in undertaking home energy upgrades. The program connects residents with an Energy Concierge to guide them through a complex process of home energy evaluation, technology comparisons, connecting with contractors, and making sure they get the most out of various provincial and federal retrofit rebates.

From November to December 2022, 160 residents signed up for the program. The program is committed for five years and aims to support 400 low carbon retrofits by November 2023.



CRD resident staying cool and comfortable in his heat pump regulated home





Resilient and Abundant Nature, Ecosystems and Food Systems

Goal 5: Protect, conserve and manage ecosystem health and nature’s capacity to store carbon and adapt to climate change. Support the ongoing ability of natural systems to sustain life.



Overall Action Status

Opportunity for Improvement

Green spaces, blue spaces and parks provide important services to store carbon in vegetation and soils, while at the same time providing ecological services that support the region’s resilience to climate change. As temperatures in the region rise, natural areas can also serve to reduce the need for energy-intensive air conditioning and provide accessible areas of respite for all residents. Monitoring ecological changes over time and sharing this across all levels of government, including First Nations, as well as community organizations and citizens, can increase our collective understanding of the impacts of these changes and inform how we can collectively respond to support the health of our ecosystems.

Although a lot of work is taking place in this goal area, staff indicate opportunities for improvement in CRD land acquisition criteria, implementing adaptation strategies, and data collection on biodiversity.

Goal Progress Summary

- Climate considerations are integrated into the interim Regional Parks and Trails Strategic Plan (2022-2032), with climate action and resiliency identified as one of the five strategic goals. The plan will also guide land acquisition criteria in the upcoming Land Acquisition Strategy, incorporating climate goals.
- Advanced work on the assessment of climate vulnerability and risk and adaptation strategies for the Greater Victoria Water Supply Area. Monitored various ecosystem changes, post-wildfire sediment and debris flow potential and advanced a study with the University of Victoria regarding wildfire risk and fuel management treatments.

CRD Roles

Stewardship of CRD lands

Land acquisition

Community and inter-municipal coordination

Education and outreach

Regional planning

Data management

This goal contains

19
sub-actions



Invasive species scotch broom removal

- Provided various regional and local ecological data sets to support planning and policy efforts, including launch of intertidal and subtidal inventories of the core area harbours, land cover information, and coastal storm and sea level data.
- Continued to support efforts to monitor stream flows in the region.
- Participated in the City Nature Challenge to encourage citizen science and population of data points across the region and achieved first place in three categories out of 40 participating cities in Canada.
- Continued to coordinate the Capital Region Invasive Species Partnership, which grew to 60+ participants from a diverse range of agencies across the region. The partnership advanced management of invasive species with capacity-building workshops, an online regional invasive species forum, alert sheets on target species, treatment and monitoring of high-priority species and procurement of a mobile incineration unit for effective invasive species disposal.
- Advanced work to support indigenous-led monitoring and restoration programs.
- Advanced work on a proposed Regional Foodlands Trust, as per Board direction.

Indicators



Percentage of Sea-to-Sea Green/Blue Belt acquired*

• 92%



Hectares of regional park land

• 13,237 ha (an additional 41.2 ha was acquired in 2022)



Number of volunteer stewardship hours

• 3,961 hours by 528 volunteers

**Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.*



Mount Manuel Quimper, Sooke, BC



Go By Bike Week, 2022



Minimized Waste

Goal 6: Waste generation and the resulting emissions are minimized and remaining waste is transformed into a resource. Follow the 5R pollution prevention hierarchy.



Overall Action Status

Opportunity for Improvement

Product use and the disposal of the waste contributes to greenhouse gas (GHG) emissions in the region. About 5% of regional GHG emissions are associated with waste – and the majority of this comes from decomposing organic waste that was added to Hartland Landfill over the last several decades (e.g., food scraps and construction wood waste). The most effective way to reduce future emissions from the landfill is to follow the 5R hierarchy – focusing first on decreasing the amount of waste produced, then on decreasing the GHG emissions from remaining waste.

This goal area shows opportunity for improvement, such as advancement of the Solid Waste Management Plan initiatives. For more information, refer to the 2022 Solid Waste Management Plan Progress Report.

Goal Progress Summary

- Awarded the new curbside recycling contract for the collection of recyclables from single-family homes, which includes the use of 23 compressed natural gas vehicles and two electric vehicles. Contract to begin in 2024.
- Conducted a waste composition study at Hartland Landfill. Results will be used to target material streams for diversion and to identify sectors that need to increase diversion.
- Enforced landfill bans on yard and garden material and food waste resulted in the collection of 11,194 tonnes of source-separated organic material at the Hartland Depot for processing off-site.
- Education programs included the launch of the CRD Rethink Waste Community Grant and Rethink Waste Newsletter, workshops, landfill tours, funding for the Compost Education Centre, and development of resources to support people living in multi-family buildings.

CRD Roles

- Solid waste management
- Liquid waste management
- Education and outreach

This goal contains

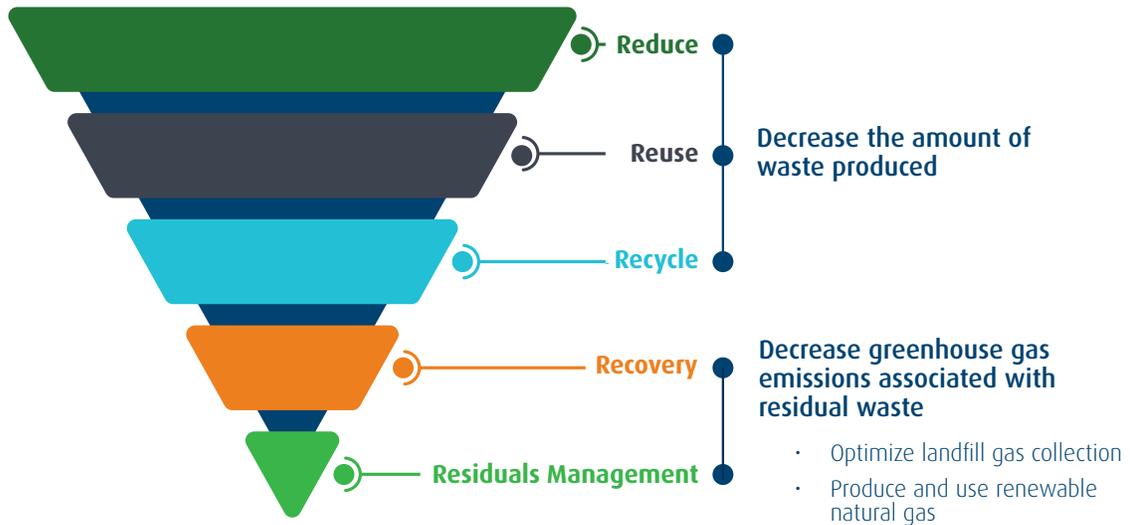
8

sub-actions over the next five years



Residuals Treatment Facility, Victoria, BC

- Awarded the contract to begin construction of a Renewable Natural Gas facility, which is expected to result in GHG emission reductions of 450,000 tonnes of carbon dioxide over the next 25 years, a 73% improvement from initial projections of 260,000 tonnes in 2019.
- Approximately 1.6 megawatts of green power was produced from landfill gas.



Indicators



CRD's per capita disposal rate

- 409 kgs/capita, 2.25% increase compared to 2021



Landfill Gas Efficiency*

- Achieved a 78% gas collection efficiency based on UBCi model

**This indicator is reported in the 2021 Landfill Gas Monitoring Report.*



Hartland Landfill, Victoria, BC / Waste composition study underway

Looking Ahead – 2023

The CRD will continue to show a leadership role, support inter-municipal collaborative efforts, pursue strategic partnerships and external funding sources, and respond to opportunities, as local and senior levels of governments advance their efforts. Some activities planned for 2023 include:

- **Extreme Heat Vulnerability Mapping:** In 2023, collection and analysis of key heat vulnerability data will occur and will help us to better understand the locations of both populations and buildings that should be prioritized when planning to address future extreme heat events. The data will be used to develop an interactive extreme heat vulnerability map hosted by Climate Ready BC.
- **The Home Energy Navigator Program:** The program launched in November 2022 and aims to support residents to undertake low-carbon home energy retrofits and take advantage of government and utility incentives. Additional promotions, capacity building and a homeowner support pilot are planned for 2023.
- **Implementation of the Electric Vehicle (EV) Infrastructure Road Map:** The CRD anticipates implementation of this plan through coordination and management of funding applications and deployment, and planning support through the development of public EV charging guidelines, and coordination of site selection for chargers.
- **Origin Destination Household Travel Survey:** This survey, which produces the region's transportation mode share information, was last completed in 2017. New data collection occurred in 2022, with reporting on new mode share data available in 2023. The data is used by local governments and communities to inform decisions on future transportation options for the region.
- **Hartland Renewable Natural Gas Initiative:** In 2022, the CRD awarded the contract to design, build and operate a new CRD facility that will upgrade the biogas generated at Hartland Landfill to renewable natural gas. In 2023, work to design and build the new facility and decommission the site's current landfill gas to electricity plant will begin.
- **Regional and Local Government GHG Inventory:** An inventory for the 2022 year will be produced for the region and each local government. Results will be shared in late 2023.
- **Greenhouse Gas Pathway Study for Recreation Centres:** The three recreation facilities contribute approximately 40% of the total GHG emissions produced by the CRD's owned and operated buildings. Moving forward in 2023, this project will help the CRD chart a path for these buildings to achieve 50% GHG reductions within 10 years and 80% reduction within the next 20 years.
- **Corporate Policies:** The CRD will advance a green building policy and carbon price policy, and work to strengthen other climate-focused decision-making frameworks across the organization.



CRD Headquarters, Pride Month, 2022

Appendix A: Climate Action Report Card

This Climate Action Report Card is intended to provide a high-level, easy-to-understand overview of the CRD's climate performance and progress.

Methodology

The Climate Action Strategy defines specific actions to guide CRD efforts over the lifespan of the strategy. These include 56 "umbrella" actions broken down into 127 sub-actions, with specific timelines and responsible divisions.

The Climate Action Report Card compiles the self-reported quantitative progress metrics from services for each of the 127 sub-actions. By averaging the progress of respective sub-actions, the report card measures the current 'action status' for several informative categories, such as overall climate action status, corporate and community-focused actions, and the six goal areas of the strategy.

The report card uses a math-based system to produce a percent grade by comparing reported progress with expected progress based on the action timelines established in the strategy. For ongoing actions with no timeline, percentages are based on self-reported levels of progress satisfaction by the responsible service. Each action status score is accompanied by qualitative progress updates that summarize any actions taken or barriers encountered during the reporting year. For clarity, percentages are converted to three coloured status indicators: on track, opportunity for improvement, and attention required. In addition, several broader corporate and regional indicators are included. These are not considered in the evaluation of the action statuses, but provide a snapshot in time or information to monitor long-term trends.

For more information on timing, divisions involved, and sub-actions, please see Appendix C in the Climate Action Strategy.



2022 Overall Action Plan Progress Opportunity for Improvement

The climate action strategy identifies 127 actions with specific timelines across the organization. Scores are based on the current status of each action within their goal areas.



Corporate Actions Opportunity for Improvement



Community-Focused Actions On Track

Goal Areas:

- Goal 1:** Climate-Focused Decision Making
- Goal 2:** Sustainable Land Use, Planning and Preparedness
- Goal 3:** Low-Carbon Mobility
- Goal 4:** Low-Carbon and Resilient Buildings and Infrastructure
- Goal 5:** Resilient and Abundant Nature, Ecosystems and Food Systems
- Goal 6:** Minimized Waste

Legend: Action Status

- On Track:** 75% or greater of yearly target progress
- Attention Required:** less than 50% of yearly target progress
- Opportunity for Improvement:** 50% - 75% of yearly target progress
- Future Action**

Legend: Indicators*

- Direction of arrow indicates **current trend direction**
- Indicator is trending in the **desired direction**
- Indicator is trending in the **wrong direction**
- Indicator is intended to provide **contextual information**

* While indicators are not considered in the calculation of the action status, they provide context and track long-term progress.

	Status	Action	Update
<p>Climate-Focused Decision Making</p> <p>Goal 1: Climate action priorities are integrated at all levels of decision making across the organization.</p> <p>Overall Action Status Opportunity for Improvement</p>	Progress on Actions		
		1-1 Integrate and standardize the climate lens framework across processes	<ul style="list-style-type: none"> • Integration of a climate lens into decision making continues through a combination of new corporate policy, procedures and staff capacity building. • Developed a draft corporate green building policy for approval in 2023. • Applied a climate lens in the Asset Management Strategy, incorporating greenhouse gas (GHG) emissions and climate impacts. • Advanced development of a life-cycle assessment tool by Asset Management to support evaluations that consider multiple priorities of the CRD. • Procurement and Delegation Bylaw updates continue to be developed. • Completed the annual corporate GHG emissions inventory. • Developed an annual CRD Climate Action Report Card for accountability on climate progress.
		1-2 Develop internal carbon pricing policies and procedures	<ul style="list-style-type: none"> • Developed an internal carbon price policy for approval in 2023. • The development of a life-cycle costing guideline is underway and will continue into 2023.
		1-3 Identify internal funding sources for climate action	<ul style="list-style-type: none"> • The internal Climate Action Reserve Fund directly supported the GHG Reduction Pathway for three recreation centres, EV charging station planning efforts and the installation of a demonstration heat pump.
		1-4 Support staff capacity building and coordination	<ul style="list-style-type: none"> • Internal climate capacity building included maintenance of an internal SharePoint hub, several presentations to work groups on specific climate action topics, and initial planning for a broader staff outreach program. • Internal climate action meetings for key staff continued and targeted introductions to the draft green building and carbon pricing policies.
	1-5 Investigate how Indigenous knowledge can inform climate action at CRD	<ul style="list-style-type: none"> • Indigenous perspectives on climate change concerns have been shared by First Nations in engagement with CRD staff in relation to wastewater treatment, food security, regional parks, heritage site management, cumulative impacts and collaborative governance arrangements. More work is needed to learn how indigenous knowledge can inform climate action in the region. 	

Additional Action Plan Indicators



Annual CRD Corporate GHG emissions • 2,845 tCO₂e (1% increase compared to 2021)



Sustainable Land Use, Planning and Preparedness

Goal 2: Support the region on its pathway to livable, affordable and low-carbon communities that are prepared for climate change.



Overall Action Status
On Track

Status	Action	Update
Progress on Actions		
	2-1 Incorporate climate hazards and vulnerabilities into corporate CRD emergency response plans	<ul style="list-style-type: none"> Climate hazards and vulnerabilities are core components of emergency response planning and are re-evaluated and adapted for on an ongoing basis. The communication process for extreme weather events is now well established. Improved the public alert notification system for timely alerting of extreme weather events.
	2-2 Monitor Regional Growth Strategy (RGS)	<ul style="list-style-type: none"> Completed the annual RGS Indicator Report. An established process is in place for Regional Context statement reviews in which municipal climate policies are reviewed in relation to RGS goals. Review of one context statement was completed and comments were provided on the development of three Official Community Plan (OCP) processes in the region.
	2-3 Integrate climate impacts into Juan de Fuca land use plans and policies	<ul style="list-style-type: none"> All Juan de Fuca OCPs have been amended to include GHG emission statements. Initiation of Port Renfrew OCP review is anticipated for 2023.
	2-4 Collect and share pertinent energy, emissions, climate projections and vulnerability data	<ul style="list-style-type: none"> Collected emissions data from a variety of sources, including the Insurance Corporation of BC, Fortis BC, Victoria Real Estate Board, the Ministry of Finance and Climate Action Secretariat. Staff presented on these various data sets to inter-municipal staff from across the region. Initiated planning with Pacific Climate Impacts Consortium to renew regional downscaled climate projections based on new modelling. Received award of \$150,000 UBCM grant to collect quantitative and qualitative data to develop a Capital Region Extreme Heat Vulnerability Mapping Dashboard in 2023 supported by an inter-municipal team.
	2-5 Identify innovative actions to close the regional 2030 emissions reduction gap	<ul style="list-style-type: none"> Future action
	2-6 Coordinate regional climate action, collaboration and capacity building among local governments and interested First Nations	<ul style="list-style-type: none"> Staff continued to facilitate and administer several inter-municipal networks that serve to coordinate regional climate action, set priorities, and disseminate resources (including the Climate Action Task Force and Climate Action Working Group, Development Planning Advisory Commission, Local Government Emergency Program Advisory Committee, the Regional Emergency Management Partnership and the Healthy and Safe Environments Community Health Network). Provided a climate-focused onboarding session for the newly-elected Board. Supported local governments and First Nations in accessing climate projections and sea level rise data. Participated in engagement sessions focused on the Intentions Paper for the Province of BC's proposed new flood strategy. The CRD's Community Health Network established a research partnership with UVic's School of Public Administration to explore the impact different climate events have on the health outcomes of vulnerable groups within the capital region. An equity lens will be used to identify actions to better support vulnerable groups to prepare for, respond to and recover from extreme weather, beginning with extreme heat. Established funding and resourcing in relation to the feasibility of mobility hub development in key locations across the region in partnership with the Ministry of Transportation and Infrastructure.

Status	Action	Update
Progress on Actions		
	2-7 Incorporate regional climate projections into electoral area emergency planning and enhance FireSmart efforts	<ul style="list-style-type: none"> Advanced planning for wildfire and drought for 2021-2022 included work on a community wildfire resiliency plan, passing of an open burning bylaw in the Juan de Fuca and Southern Gulf Islands Electoral Areas (EA) and development of community evacuation guides for all EAs. Climate projections are incorporated in the hazard, risk and vulnerability assessments for the EAs on an ongoing basis and will be reviewed with the upcoming overhaul of the Emergency Program Act. The FireSmart program has been markedly expanded, with the successful completion of several grants and award of new grants in the EAs, including the contracting of a FireSmart Coordinator to lead the local initiatives and training.
	2-8 Coordinate with emergency management stakeholders on planning and public outreach activities related to climate risks	<ul style="list-style-type: none"> Staff continued to work to coordinate extreme heat, flood and drought awareness among emergency management stakeholders and partners in the region. Work began on extreme heat vulnerability mapping, which will inform emergency response and other planning activities. (See also 2-4.)
	2-9 Investigate Transition Salt Spring Island 2.0 Climate Plan implementation	<ul style="list-style-type: none"> Resource and current service limitations to support Transition Salt Spring Island 2.0 Climate Plan implementation were investigated; further evaluation still required.

Regional Climate Progress Indicators and Trends		
	Number of net new dwelling units in areas where more than 42% walk/bike/bus to work*	<ul style="list-style-type: none"> Currently, the region is not meeting the desired trend.

*Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.



Low-Carbon Mobility

Goal 3: Rapidly reduce corporate fleet emissions. Support, endorse and encourage active, public and zero-emission transportation options across the region.



Overall Action Status
On Track

Status	Action	Update
Progress on Actions		
	3-1 Administer and track the new Green Fleet Policy	<ul style="list-style-type: none"> Implemented Green Fleet Policy while adjusting for significant supply chain delays. Procedures that require replacement and purchasing of vehicles include routine review of opportunities to replace combustion vehicles with zero emission vehicles.
	3-2 Develop electric vehicle (EV) adoption and right-sizing plan for the corporate fleet	<ul style="list-style-type: none"> Corporate Fleet Manager has ongoing reviews of market availability. Continued to monitor EV availability and put in 26 EV orders for the replacement of combustion vehicles. Investigated car share opportunities.
	3-3 Develop EV infrastructure plan for the corporate fleet	<ul style="list-style-type: none"> Developed initial framework for corporate EV infrastructure. Was awarded a Zero Emission Vehicle Infrastructure Program grant to enable implementation of the charging framework. Continued to advance design work and installation of electric vehicle chargers for the CRD fleet at several facilities.
	3-4 Investigate the feasibility of bio-based diesel supply and storage	<ul style="list-style-type: none"> Future action
	3-5 Develop a region-wide approach to transportation demand management and safety policy	<ul style="list-style-type: none"> Continued with Ready, Step, Roll active school travel planning implementation with seven schools and initiated a new active travel planning pilot: Sustainable Commute Planning Initiative, working with large employers in the region. The Traffic Safety Commission (TSC) continues to work on safety education and initiatives, e.g., impairment, distracted driving, high-impact collision zones and active transportation. Reached agreement on a consistent definition of trail crossing treatments and have agreements-in-principle with most local governments to make the necessary bylaw amendments. Advanced development and implementation of standardized safety protocols and treatment of active transportation infrastructure by the Transportation Working Group, e.g., detour policy. Established a partnership with Community Social Planning Council to look at gender equity and safety on CRD trails and received a grant to investigate the development of bike skills for equity-seeking groups that are underrepresented on CRD trails. Scoped Transportation Demand Management efforts to what can currently be delivered and supported around the region.
	3-6 Collect and distribute transportation planning data regionally	<ul style="list-style-type: none"> Collected, analyzed and distributed data through the traffic count program, volunteer bike program, permanent bike counter program, and the addition of short-duration automated bike count pilot, which uses cameras to do three, seven-day volume counts over 24 hours in locations throughout the region. Data is routinely utilized to inform decision-making at a local, regional, provincial and national level. Administered the Origin Destination Household Travel Survey and all data has been collected. Data will be analyzed and distributed in 2023.

Status	Action	Update
Progress on Actions		
	3-7 Accelerate infrastructure improvements that support active transportation	<ul style="list-style-type: none"> • The CRD Board, with support from staff, has advocated to the provincial and federal governments for improved funding for active travel, including for the regional trail network, protection of the island rail corridor and transit improvements. • Continued implementation of the Regional Transportation Plan; established a regional Transportation Working Group with a core mandate of working toward consistent and connected cycling facilities, per the regional transportation priorities. • Initiated an update to the regional cycling network and the AAA facility framework, with the objective of developing a planning tool to support a consistent cycling network across jurisdictions. • CRD Parks continues to advance the widening and lighting of the most used urban segments of the regional trails. • Commenced Salt Spring Island Active Transportation Plan and completed designs for a new pedestrian path; submitted BC Active Transportation grant for construction. • Began development of the first regional trail in the Gulf Islands (Mayne Island Regional Trail), supported by grant funding and scheduled to be complete in 2023. Continued to implement the Gulf Islands Trails Management Plan. • Sought establishment of a Southern Gulf Islands Transportation Service; however, initiative did not pass voter assent via referendum of SGI voters during the General Election. • Sought grant funding for Galloping Goose Regional Trail enhancements (widening and lighting) and critical infrastructure improvements. Selkirk Trestle repairs are underway; completed Phase 3 of the E&N Rail Trail and Phase 4 is underway.
	3-8 Lead and support regional education programs focused on zero-emission mobility	<ul style="list-style-type: none"> • Executed a region-wide outreach campaign called Charge Your Ride to encourage the adoption of electric vehicles (EVs) and electric bicycles (e-bikes). Directly engaged over 3,800 residents at 20 community events and 3 large test drive and ride events across the region in summer 2022. Launched the second phase of the Charge Your Ride program, with a focus on capacity building for electricians, automotive technicians, fleet managers and strata owners—made possible thanks to \$225,000 federal Zero Emissions Vehicle Awareness Initiative grant. • Provided four free e-bike safety courses at various locations throughout the region for residents, with some supported by Transportation Safety Commission. • Participated in Go by Bike Week events in the spring and fall to educate and support active transportation. • Led a trail etiquette campaign on regional trails to support active transportation. CRD park rangers continue to patrol the regional trails to ensure compliance with regional trail bylaws, public safety, and to champion trail etiquette.
	3-9 Support acceleration of transit improvements and increased service	<ul style="list-style-type: none"> • The CRD Board approved a transportation priority of Bus Mass Transit (RapidBus) with a focus on connecting downtown to Westshore. Numerous technical and working groups are established to support delivery of this priority. • Staff supported Ministry of Transportation and Infrastructure (MoTI) on mobility hub redevelopment of provincially-owned land efforts as mixed-use mobility hubs. • The CRD Board approved a transportation priority to improve transit service in suburban and rural areas and supports, increasing the number of Park & Rides in these areas. Work is supported through participation in local area transit planning processes. • Advocated to MoTI for investment to explore long-term transportation alternatives, including passenger ferry and rail-based transit options, as appropriate. • Advocated to MoTI staff, executive and Minister for protection of the island rail corridor. MoTI is currently undertaking a technical analysis of transportation needs along the corridor, preparing a freight study and supporting the Island Corridor Foundation to work with affected First Nations. • Embedded funding in 2023 capital plan to undertake an operations and maintenance facility plan with secure vehicle parking and battery electric bus charging infrastructure to facilitate delivery of the SSI Community Transit Service. • Completed the SGI Transportation Integration Plan and developed a Service Establishment Bylaw; however, it did not pass voter assent.

Status	Action	Update
Progress on Actions		
	3-10 Support a public electric vehicle charging network and encourage uptake of zero-emission vehicles	<ul style="list-style-type: none"> • See Item 3-8. • Hosted four webinars and an in-person event focused on EV equipment installations for strata and trades as part of the Charge Your Ride regional outreach campaign. • Submitted a comprehensive response to the first formal review of the Provincial Zero Emissions Vehicle Act and Regulation in collaboration with local governments to ensure needs of the region were reflected. • Received \$60,000 in BC Hydro grant funding to initiate the development of public EV charging installation guidelines to support private landowners and businesses to install public charging stations. • Submitted a \$7 million grant application under the Investing in Canada Infrastructure Program – Green Infrastructure – CleanBC Communities Fund for almost 600 priority ports at more than 70 locations across the region. To inform the application, staff conducted an EV charging station siting initiative with local governments and electoral areas. • Led a successful joint application with City of Victoria, Township of Esquimalt and Town of View Royal to the federal Zero Emission Vehicle Infrastructure Program to provide \$460,000 for the installation of 110 electric vehicle chargers at 17 sites within the region, encompassing both corporate and public vehicle charging. Chargers to be installed in 2022-2023.
	3-11 Implement Regional EV Charging Roadmap	<ul style="list-style-type: none"> • See Items 3-8 and 3-10. • Hired CRD Electric Mobility Coordinator to support execution of the EV Charging Roadmap. • Engaged BC Hydro on infrastructure planning and is currently developing an MOU to facilitate site selection and infrastructure deployment across the region. • Developed data-sharing framework memo to inform future work around tracking and sharing usage data across the region. • Attended provincial Electric Vehicle Local Government Peer Network meetings and shared learnings with municipal staff via the CRD Climate Action Inter-Municipal Working Group.
	3-12 Improve internet access on Southern Gulf Islands	<ul style="list-style-type: none"> • Established a partnership proposal for last mile and transport to be provided by City West and Connected Coast on Galiano and Saturna Islands. • Work is ongoing to establish connectivity service. Pending successful grant application, the SGI Community Economic Sustainability Commission service aims to advance partnerships with independent service providers for connectivity improvements. • Broadband infrastructure to be improved on Mayne and Pender Islands by Shaw.

Additional Action Plan Indicators

	Regional EV Infrastructure Roadmap implementation	<ul style="list-style-type: none"> • Level 2 ports: 38% (296 installed) • DCFC ports: 27% (35 installed)
	Percentage of the Regional Trail Network completed*	<ul style="list-style-type: none"> • 48% (increase of 1,000 m)
	Annual CRD corporate fleet GHG emissions	<ul style="list-style-type: none"> • 1,176 tCO₂e (10% decrease compared to 2021)
	Number of corporate EVs purchased	<ul style="list-style-type: none"> • 26 EVs on order (9 previously purchased)
	Number of CRD fleet EV chargers installed	<ul style="list-style-type: none"> • 8 (18 to date)

*Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.

Regional Climate Progress Indicators and Trends

	Percentage of total trips made by walking, cycling and transit in the Growth Management Planning Area*	<ul style="list-style-type: none"> • Showing a positive trend to date. Data collected in 2022 will be analyzed and shared in 2023
	Annual EV ICBC registrations (region fleet size)	<ul style="list-style-type: none"> • 7565, 2.51% of total registrations (0.25% increase compared to 2021)
	Victoria Transit Region fuel sales	<ul style="list-style-type: none"> • 216,628,758 taxable litres (insignificant decrease compared to 2021)

*Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.



Low-Carbon and Resilient Buildings and Infrastructure

Goal 4: Accelerate energy efficiency, emission reductions and enhanced resilience in CRD buildings and infrastructure. Support and encourage the same for all buildings and infrastructure across the region.



Overall Action Status
On Track

Status	Action	Update
Progress on Actions		
	4-1 Develop and implement a corporate Green Building Policy	<ul style="list-style-type: none"> Developed a draft corporate Green Building Policy, with the final draft under review. The Policy will be finalized in 2023.
	4-2 Develop and implement a Strategic Energy Management Plan	<ul style="list-style-type: none"> Completed a corporate Strategic Energy Management Plan.
	4-3 Conduct energy studies for CRD facilities to identify priority emission reduction and energy efficiency projects	<ul style="list-style-type: none"> Completed ASHRAE Level 1 Energy Audits for 7 sites in the CRD portfolio. Initiated Net-Zero Energy Pathway Feasibility studies and Level 2 ASHRAE audits for Panorama Recreation Centre, SEAPARC Leisure Complex and Rainbow Road Recreation Centre. Secured an up to \$148,000 Federation of Canadian Municipalities grant to support the project. Initiated procurement for a Saanich Peninsula District Energy System study. Completed an energy study for CRD Headquarters building.
	4-4 Complete identified high impact retrofits to CRD facilities	<ul style="list-style-type: none"> Tendered call for credentials to complete options analysis for the electrification of the Fisgard HQ HVAC system. RFP to be completed early 2023. Evaluated energy recovery system replacement at SEAPARC. A new high efficiency natural gas boiler was installed and commissioned. Began planning for energy recovery system at Panorama Recreation. Detailed design and tender planned for 2023.
	4-5 Pursue climate-friendly development and retrofits for Capital Region Housing Corporation and Capital Regional Hospital District facilities	<ul style="list-style-type: none"> The Hospital District 10-year capital plan provides major and minor capital resources to Island Health and facilities following Island Health energy guidelines. Continued efforts to secure grant funding to support energy and GHG savings in housing facilities. Embedded energy reductions into the design phase on new construction projects, wherever possible. All new development projects follow Building and Energy Performance targets set by the BC Housing Design Guidelines and Construction Standards. Initiated and completed three development projects (2782 Spencer Road), funded through the Community Housing Fund under a requirement to achieve Step 4, under the BC Energy Step Code.
	4-6 Consider climate impacts in risk assessments and infrastructure upgrades	<ul style="list-style-type: none"> Continued to consider climate change impacts as part of the design criteria for water supply and wastewater systems. Within the Greater Victoria Water Supply Area (GVWSA), considered climate change impacts in all decision-making and planning from: culvert/bridge replacement, forest health, forest resilience, fuel management, wildfire and post-wildfire preparedness to new building design. Developed the 2022 Regional Water Supply Master Plan and used regional climate projections to evaluate risks to future water availability. Assessed drainage structures in the Sooke and Goldstream Water Supply Areas and prioritized replacement for those that are undersized based on design flow capacity needs and climate impacts. Eight drainage structures were replaced and 15 were deactivated/rehabilitated, as part of a plan to gradually upgrade all GVWSA infrastructure.
	4-7 Implement a Regional Energy Retrofit Program	<ul style="list-style-type: none"> Developed the Home Energy Navigator program, with a launch in November 2022, to support residents undertaking home energy upgrades. The program is committed for five years and aims to support 400 low carbon retrofits by November 2023. Over 160 participants signed up since the end of December 2022. Work to develop a financing component to the program is ongoing.
	4-8 Develop, deliver and support building-related energy, emissions and water education	<ul style="list-style-type: none"> Supported coordination of 68 (25 funded by CRD, 43 by municipal partners) regionally and municipally funded Cool It! Climate Leadership Training workshops through the BC Sustainable Energy Association. The workshops provide free interactive climate education to elementary and high school classes in the region and empower students and their families to reduce their energy, water and carbon consumption. Continued to promote BC's home heating fuel-switching rebate program with municipal partners, including hosting a Group Purchase Rebate code for the region and organizing a "Considering a Heat Pump" webinar.

Status	Action	Update
Progress on Actions		
	4-9 Support acceleration of regional building energy benchmarking and local government regulation approaches	<ul style="list-style-type: none"> Expanded work with Building Benchmark BC to disclose the building energy and emissions data for Panorama, SEAPARC and Rainbow Road recreation centres, in addition to Fisgard HQ. The aim of the program is to inform and inspire public and private sector leadership. Participated in reviewing provincial policy options that would require the efficiency of space and hot water systems to achieve a minimum of 100%. This regulation is aimed at significantly cutting fossil fuel use in the province. Participated in and provided feedback on the BC Building Code 2018 Emissions and Energy Efficiency Standards public review.
	4-10 Coordinate high-performance building policy support and capacity-building activities	<ul style="list-style-type: none"> Attended provincial Step Code Local Government Peer Network meetings and shared the anticipated Carbon Pollution Standard regulations with capital region municipal staff via the CRD Climate Action Inter-Municipal Working Group (IMWG). Worked with several municipalities that have already adopted the BC Energy Step Code voluntarily to coordinate next phase Step Code industry consultation activities, including one webinar with municipalities, and two virtual engagement sessions with the building industry. Supported interested municipalities with the next phase BC Energy Step Code consultation relating to new provincial carbon pollution standards for new buildings. The resulting recommendations were shared through the IMWG, leading to additional municipalities adopting, or providing the mandate to adopt, a carbon regulation for new buildings.
	4-11 Collect and share data and research on building energy use and emissions	<ul style="list-style-type: none"> Collected and provided wastewater data to the District of Saanich and City of Victoria for their 2021 greenhouse gas (GHG) inventories. Collected the previous year's Fortis and BC Hydro data for the region's municipalities. Provided GHG and energy use data to municipalities, as requested. Continued to collect heating systems information for all homes sold in the capital region and continued development of regional home archotyping map based on home heating fuel information.
	4-12 Promote green infrastructure and improved stormwater management approaches	<ul style="list-style-type: none"> Hosted webinars on rainwater capture and installing residential rain gardens. Coordinated the Gorge Waterway Initiative, BC Transit/Handy Dart sub-committee to advise on facility development, which will be the first "Salmon Safe" certified development on Vancouver Island. Provided Green Shores training for local government and First Nations staff and technical and financial support to proposed Green Shores demonstration restoration site in Gorge Esquimalt Park. Hosted a green infrastructure symposium for local government staff with climate projections and new climate modelling information. Planned and contracted consultants for the delivery of Rural Stormwater Management workshops for the agricultural community in 2023.
	4-13 Understand climate impacts on groundwater resources in Juan de Fuca Electoral Area	<ul style="list-style-type: none"> Hosted a provincial presentation to the community regarding the nature of groundwater resources, well registration, and well protection in the Juan de Fuca Electoral Area.
	4-14 Investigate regional renewable energy and storage potential	<ul style="list-style-type: none"> Future action

Additional Action Plan Indicators

	Annual CRD corporate facilities GHG Emissions	• 1669 tCO ₂ e (11% increase compared to 2021)
	Number of critical emissions reduction projects completed*	• 0
	Number of site energy audits completed	• 8

*studies have been undertaken that will direct capital projects in coming years

Regional Climate Progress Indicators and Trends

	Regional Energy Retrofit Program implementation	• 160 participants have signed up as of the end of December 2022
	Annual FortisBC natural gas consumption numbers	• 7,165,128 GJ (2021) (4% increase compared to 2020)
	Annual FortisBC natural gas connections	• 58,939 (2021) (6% increase compared to 2019)



Resilient and Abundant
Nature, Ecosystems and Food
Systems

Goal 5: Protect, conserve and manage ecosystem health and nature's capacity to store carbon and adapt to climate change. Support the ongoing ability of natural systems to sustain life.



Overall Action Status
Opportunity for Improvement

Status	Action	Update
Progress on Actions		
	5-1 Integrate climate considerations into regional parks strategic and management planning	<ul style="list-style-type: none"> Updated the Regional Parks and Trails Strategic Plan (2022-2032), with Climate Action and Resiliency identified as one of the five strategic goals. The plan will guide land acquisition criteria in the upcoming Land Acquisition Strategy. Engaged with the WSÁNEĆ Leadership Council and its designates on the development of the Mount Work Regional Park Management Plan and have sought First Nations names for the Mountain Forest Regional Park. Invited input from T'Sou-ke Nation on preliminary work on East Sooke Regional Park. The CRD Cultural Programmer delivered 24 cultural school programs and 32 Indigenous Perspectives public programs.
	5-2 Monitor ecosystem health in the Greater Victoria Water Supply Area (GVWSA) and investigate expanding regionally	<ul style="list-style-type: none"> Monitored ecosystem changes within the GVWSA through an annual forest health overview and ground monitoring of forest defoliator populations. Chlorotic forest stands were investigated and reported and research is underway on the potential for climate change to increase forest vulnerability to the Douglas-fir beetle. Ecosystem and forest inventory updates are planned for 2023. Hydrology monitoring and upgrading is underway, including soil moisture and under-canopy forest weather conditions.
	5-3 Undertake climate adaptation initiatives to increase the resilience of the GVWSA	<ul style="list-style-type: none"> Considerable work on the assessment of climate vulnerability and risk and adaptation strategies and actions has been completed for the GVWSA; however, final documentation of the climate adaptation strategy is still required. Completed an assessment of post-wildfire sediment and debris flow potential for the Sooke Water Supply Area. Made progress on fuel reduction corridors and 6 ha were treated. Completed procurement, demonstration and trial of the new air curtain burner, which will enable treatment of woody debris through longer portions of the year. A prescribed burn plan was completed. Advanced a study with UVic regarding forest stands at greatest risk of wildfire, currently and under future climate change conditions, as well as the potential for fuel management treatments to reduce wildfire threat. Investigation and planning of mechanized thinning began in 2022.
	5-4 Provide regional and local ecological data to support planning and policy efforts	<ul style="list-style-type: none"> Advanced work to create a regional biodiversity inventory, including the acquisition and assessment of data available from federal and provincial resources. Initiated intertidal and subtidal inventories of core area harbours that will be completed in 2023. Engaged with Saanich staff and the Resilient Saanich committee regarding their approach to biodiversity data. Identified that more resources are needed to support development of a regional inventory. Participated in the City Nature Challenge to encourage citizen science and population of data points across the region and achieved first place in three categories out of 40 participating cities in Canada. Shared land cover datasets with multiple municipalities and First Nations in the region. The data shows an overall decrease in forest cover across the region. Planning and coordination took place to submit a capacity building grant for Growing Canada forests in partnership with municipalities and First Nations. Continued to support efforts to monitor stream flows in the region, and local government staff have affirmed their interest in hydrometric data to support their development of integrated stormwater management plans.
	5-5 Coordinate regional invasive species program	<ul style="list-style-type: none"> Coordinated the Capital Region Invasive Species Partnership, which grew to 60+ participants from a diverse range of agencies across the region. Delivered staff capacity-building workshops on managing invasive grasses, carpet burweed, yellow flag iris, lesser celandine and shiny geranium. Delivered an online regional invasive species forum in partnership with the Invasive Species Council of BC. Completed new alert sheets for shiny geranium, Italian arum, gorse and tansy ragwort. Managed a contract for the treatment and monitoring of high priority species, in which five municipalities participated. Participated in the new Northwest Regional Invasive Species and Climate Network (US and Canada). Completed procurement of a mobile incineration unit for effective invasive species disposal.
	5-6 Support regional forest and urban tree programs	<ul style="list-style-type: none"> Future action

Status Action Update

Progress on Actions

	5-7 Support Indigenous-led monitoring and restoration programs	<ul style="list-style-type: none"> Continued ongoing First Nations engagement into the Regional Parks and Trails Interim Strategic Plan to generate input that will inform how the CRD can partner with Indigenous Guardian programs in the future. CRD divisions are partnering with First Nations' cultural monitors and Guardians on the protection and conservation of heritage sites. Supported Pauquachin First Nation, in collaboration with researchers from the University of Victoria, to help assess on-reserve stormwater quality to inform restoration of marine shellfish harvesting in Coles Bay. The Saanich Peninsula Harbours and Waterways Initiative engaged four WSÁNEĆ nations and two nations are participating in the Capital Region Invasive Species Partnership. Staff are working with T'Sou-ke Nation on a potential knotweed management program for the Sooke River T'Sou-uke and the WWF Canada Nature and Climate grant application. Engaged Songhees and Esquimalt First Nations in the intertidal and subtidal harbours ecological inventory and rating project, as well as in planning a Green Shores project in Esquimalt Gorge Park.
	5-8 Support local food and agriculture planning and programs	<ul style="list-style-type: none"> Provided administrative support to the Regional Food and Agriculture Task Force. Progressed work to support a Regional Foodlands Trust with the review and analysis of a business case to inform decision making. The Board provided direction to identify detailed operational requirements, determine a funding strategy and confirm land use and local government participants for establishing this new initiative. There is an ongoing effort to increase partnerships with various agricultural entities and groups with interest in the project.
	5-9 Integrate climate impacts and solutions into environmental education and outreach campaigns	<ul style="list-style-type: none"> Applied a climate lens to all new and existing outreach and education campaigns associated with drinking water, stormwater management, biodiversity, invasive species management and parks interpretive programs. Included energy information in water use assessment reports for businesses. Updated all education webpages to incorporate climate mitigation and adaptation messaging, where appropriate; new videos were completed for the drinking water supply area; development of Rural Stormwater Management workshops included a strong emphasis on climate impacts; and parks interpretive program messaging has been updated to include both a climate and cultural lens. Continued promotion of biodiversity materials at public outreach events and online through social media. Rural Stormwater Management workshops were developed with a focus on climate impacts, projections and adaptation strategies to manage and retain rainwater through high precipitation events and drought periods. Parks interpretive programs address the role and benefits of Regional Parks, including their importance in preserving biodiversity and mitigating the effects of climate change. Supported the UN Decade on Ecosystem Restoration with the promotion of the UN Decade's Make a Difference Week, presentations to CRD Harbours Initiatives, sharing resources through invasive species meetings and sharing the regionally-specific UN Decade logo. Developed a Stewardship Storytelling series where local stewards are highlighted in an interview to promote residents getting involved in restoration. These interviews were completed in the fall and will be promoted in 2023.

Additional Action Plan Indicators

	Hectares of regional park land	• 13,271 ha (an additional 41.2 ha was acquired in 2022)
	Number of volunteer stewardship hours	• 3,961 hours by 528 Volunteers

Regional Climate Progress Indicators and Trends

	Percentage of Sea-to-Sea Green/Blue Belt acquired*	• 92%
	Hectares of farmland in the Growth Management Planning Area*	• Data from the 2021 census will be the first opportunity to measure progress toward this target.

*Progress on these indicators is reported in the Regional Growth Strategy Indicator Report.



Minimized Waste

Goal 6: Waste generation and the resulting emissions are minimized and remaining waste is transformed into a resource. Follow the 5R pollution prevention hierarchy.



Overall Action Status
Opportunity for Improvement

Status	Action	Update
Progress on Actions		
	6-1 Implement the Solid Waste Management Plan	<ul style="list-style-type: none"> Awarded the new curbside recycling contract for the collection of recyclables from single-family homes; includes the use of 23 compressed natural gas vehicles and two electric vehicles. Contract to begin in 2024. Conducted a waste composition study at Hartland Landfill. Results will be used to target material streams for diversion and identify sectors that need to increase diversion. Enforced landfill bans on yard and garden material and food waste and resulted in the collection of 11,194 tonnes of source-separated organic material at the Hartland Depot for processing off-site.
	6-2 Develop and deliver education programs to promote a circular economy, zero waste and the 3 Rs	<ul style="list-style-type: none"> Launched the CRD Rethink Waste Community Grant in April, which resulted in 16 projects with a total value of \$35,500. The Rethink Waste Newsletter was also launched. Continued ongoing programming to deliver education workshops, landfill tours; funding for the Compost Education Centre continued. A project to better align online information on CRD services and broaden education resources for people living in multi-family buildings, as well as businesses, was developed for implementation in 2023. Promoted the avoidance of food waste through the Love Food Hate Waste campaign.
	6-3 Support education and engagement on waste management to be delivered by and for First Nations communities	<ul style="list-style-type: none"> Initiated the WSÁNEĆ Leadership Council/Capital Regional District Solid Waste Working Group, established terms of reference and began regular meetings. Began working with Pacheedaht First Nation to address illegal dumping and community clean-up and began discussions with Pacheedaht First Nation and Port Renfrew on future mutually beneficial long-term waste management for the broader Port Renfrew community.
	6-4 Continue to maximize and optimize the capture of landfill gas for beneficial use	<ul style="list-style-type: none"> Awarded the contract to begin construction of a Renewable Natural Gas facility, which is expected to result in GHG emission reductions of 450,000 tonnes of carbon dioxide over the next 25 years, a 73% improvement from initial projections of 260,000 tonnes in 2019. Approximately 1.6 megawatts of green power was produced from landfill gas. A 69% gas collection efficiency was achieved based on the BC Ministry of Environment and Climate Change model; A 78% gas collection efficiency was achieved based on the Advanced Landfill Gas Generation model in 2021. More details can be found in the 2021 Landfill Gas Monitoring Report. Continued annual installation of landfill gas collection infrastructure and strategies were implemented to improve gas collection and mitigate fugitive emissions. A technical advisor was procured to support the CRD in developing a material stream diversion strategy and a jurisdictional scan of emerging waste management technologies began. A trial to shred construction and demolition material to improve the landfill's compaction rate was conducted and a Request for Expressions of Interest for processing of material diverted from the landfill was initiated.
	6-5 Consider climate change impacts in liquid waste management	<ul style="list-style-type: none"> Initiated planning to update the Core Area and Saanich Peninsula Liquid Waste Management Plans. Staff are working to engage First Nations and integrate climate change considerations and adaptation into the plan updates. Timing for this item will be updated to 2022-2024.

Regional Climate Progress Indicators and Trends



CRD's per capita disposal rate

• 409 kgs/capita, 2.25% increase compared to 2021



Landfill Gas collection efficiency

• Achieved a 78% gas collection efficiency based on UBCi model*

*This indicator is reported in the 2021 Landfill Gas Monitoring Report.



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Local Government Climate Action Program Attestation Form

Instructions for the Attestor (CFO or equivalent staff person):
Complete and sign this form by filling in the fields below.

I, the Chief Financial Officer, or equivalent position, attest to the following:

- That Local Government Climate Action Program funding has been, or will be, allocated to climate action.
- That Local Government Climate Action Program funds held in reserve will be spent by March 31, 2025.
- That a completed and signed version of this form and survey contents will be publicly posted by September 30, 2023.

Attested by (first name, last name)

Nelson Chan

Professional title

Chief Financial Officer

Local government or Modern Treaty Nation

Capital Regional District

Attested by (first name, last name)*

Nelson Chan

Professional title*

Chief Financial Officer

Local government or Modern Treaty Nation*

Capital Regional District

Date*

2023-07-28

Attestor signature*

