2021 Climate Action Annual Report

Taking Action on the Climate Emergency



TERRITORIAL ACKNOWLEDGEMENT

The CRD acknowledges that it conducts its business in the territory of the Ləkwəŋən (Songhees) and Xwsepsum (Esquimalt) Nations here in the core area, the WSÁNEĆ Nations, including WJOŁEŁP (Tsartlip), BOKEĆEN (Pauquachin), STÁUTW, (Tsawout) and WSIKEM (Tseycum) on the Saanich Peninsula and Gulf Islands, Sc'ianew (Beecher Bay), T'Sou-ke, and Pacheedaht to the west as well as MÁLEXEŁ (Malahat) and Pune'laxutth' (Penelekut) Nations. All of whom have lived on these lands since time immemorial.



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

The Capital Regional District (CRD) has committed to annually reporting on all of the climate action related activities undertaken by the CRD. This report summarizes all 2021 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 (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.
- 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.



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 to 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 renewed Climate Action Strategy replaces two former strategies to provide 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.

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, residents, 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 (IPCC) 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.

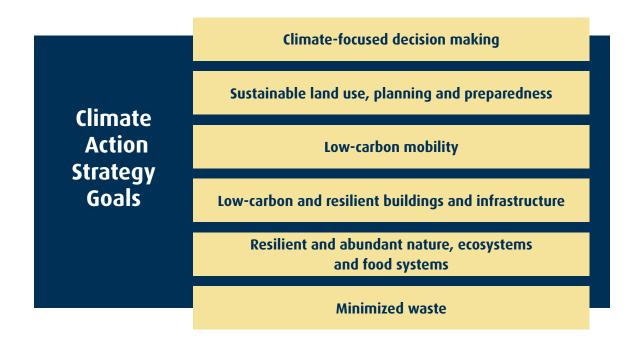


Regional target

Reduce regional greenhouse gas (GHG) emissions 61% by 2038 based on 2007 levels (as per 2018 Regional Growth Strategy).

Corporate target

Reduce corporate GHG emissions 45% by 2030 based on 2007 levels, and reach net-zero GHG emissions before 2050.





Tracking Our Emissions

The 2021 Climate Action Strategy reviewed historical emissions inventory data for the corporation and the region and analyzed the senior government policy environment to determine potential emission reduction scenarios. These scenarios provide a roadmap of how rapid emissions reductions can be achieved if all players, including the CRD, do their part. Please see the Climate Action Strategy for more details about these scenarios.

Community Emissions

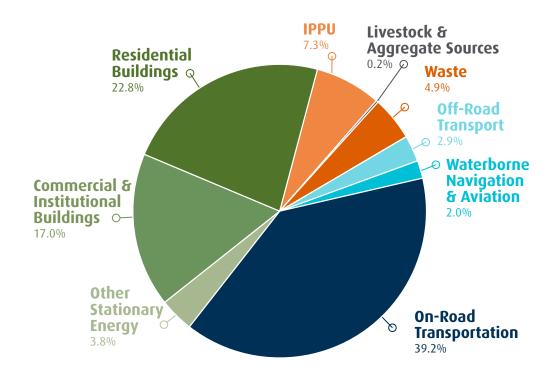
In 2021, the CRD completed a new emissions inventory and report for the 2020 calendar year, building on a 2018 inventory. This followed the internationally recognized Global Protocol Community-Scale GHG Inventories BASIC+ Framework, and included GHG emissions from: stationary energy (e.g., buildings), 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).

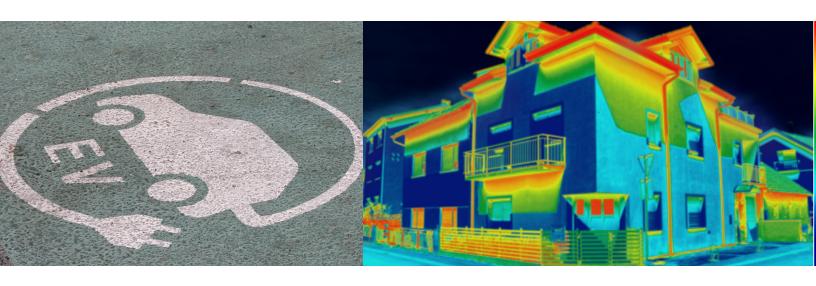
The 2020 inventory indicated the capital region emits approximately 1.8 million tonnes of C02e annually. This represents a 9.8% reduction from 2007 levels and a 5.2% reduction from 2018. These reductions are largely associated with the decrease in transportation-related emissions due to the early 2020 COVID-19 pandemic response. Emissions associated with buildings increased 8.1% in 2020 relative to 2018. This increase is related to increased natural gas use and the provincial energy emissions factor being adjusted to account for imported electricity.

The total per capita GHG emissions (t CO2e/capita) has decreased by 24%, which speaks to the efforts by the CRD and regional local governments to reduce energy consumption and GHG emissions despite significant regional growth.

Waste-related emissions were approximately 34% below 2007 levels. On-road transportation and the built environment remain the main sources of regional emissions, together accounting for approximately 79% of all emissions in 2020.

2020 Capital Region Community Energy Emissions

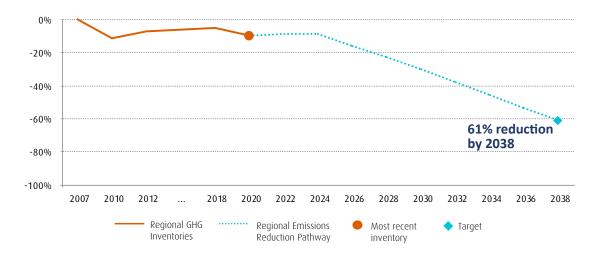




To achieve the CRD's regional GHG emission reduction target of 61% reduction by 2038, the region, and all key players, including senior levels of government, local governments, residents, business, industry and organizations, must continue to advance key initiatives, including:

- 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

Capital Region C02e Emissions (2007 to 2020) and Climate Action Strategy pathway and target

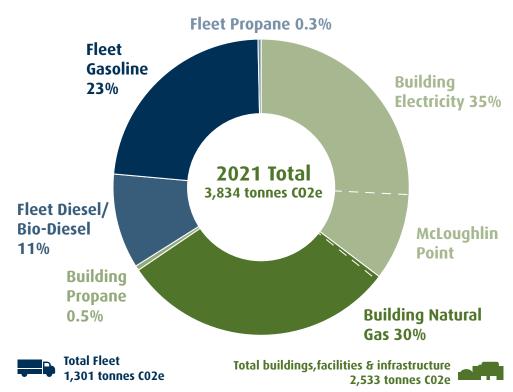




Corporate Emissions

In 2021, CRD operations produced 3,834 tonnes of CO2e, with 1,301 tonnes associated with the corporate fleet and 2,533 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 19% increase from 2020 and 28% from the baseline level of emissions from 2007. An increase was expected in 2021 related to the Mcloughlin Point Wastewater Treatment Plant coming online and beginning operations. If excluding the increase from the treatment plant, corporate emissions in 2021 still increased by 6.6% above the previous year. This was likely influenced by the CRD's response to the COVID-19 pandemic. CRD facilities protocols were adjusted to increase the amount of fresh air coming into buildings, which required more energy and fossil fuels to heat. COVID-19 protocols likely increased fleet emissions, as the number of people allowed in a vehicle was limited, presumably increasing the number of individual vehicle trips. In 2022, the CRD will investigate new energy-efficient protocols based on recent health and safety research to reduce this effect.

2021 Operational Greenhouse Gas Emissions by Source

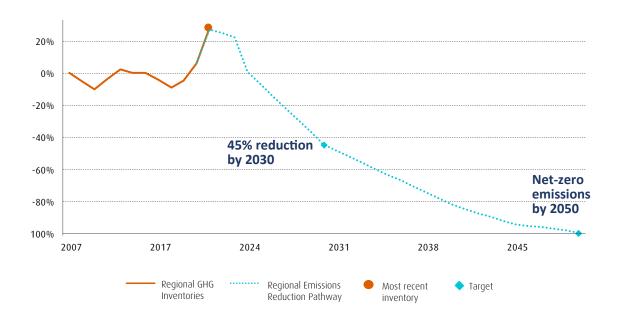


*Currently, electric vehicle charging is included in building electricity use

As the graph below illustrates, the anticipated addition to emissions from McLoughlin Point was incorporated into 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 focus on accelerating the following critical actions in upcoming years:

- Switching the CRD Fisgard Headquarters heating system from natural gas to electricity.
- Installing a heat recovery system Panorama Recreation Centre.
- Investigating deep energy and GHG retrofit opportunities at SEAPARC.
- Pursuing an annual 5% improvement in electricity efficiency through energy audits.
- Moving towards complete electrification of light-duty fleet vehicles.

CRD Corporate CO2e Emissions (2007 to 2021) and Climate Action Strategy pathway and targets



Adapting to Climate Impacts

Changes to our climate are already noticeable in the capital region and will increase. In 2021, the region experienced an unprecedented heat wave and heavy rains and flooding. The CRD and the capital region must work to reduce vulnerability in our communities and adapt to a changing climate by improving how we anticipate, respond to and recover from both extreme weather events and more gradual changes occurring over time. The CRD has led or supported several data and planning initiatives to identify vulnerabilities, strategies and actions, including:

- Climate Projections for the Capital Region (2017)
- Capital Region Coastal Flood Inundation Mapping Project (2021)
- Adaptation planning for the Greater Victoria Drinking Water Supply Area (ongoing)
- Community Climate Change Adaptation Priorities for the Capital Regional District (2020)
- Corporate Climate Change Risk Assessment Report (2021)
- Various local government climate adaptation planning processes (ongoing)

As a result of climate change, the region is projected 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.









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 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 summarize progress made in the 2021 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.





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



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, paths and parks. Decisions made in each service area can have implications for greenhouse gas (GHG) emissions generated or sequestrated by CRD assets over time, as well as how prepared these assets are for the changing climate. The CRD can also improve the organizational understanding of Indigenous knowledge, laws and perspectives in relation to climate solutions to inform how the CRD approaches climate action.

Goal Progress Summary

- Several new corporate policies and evaluation tools are in development to support climate-focused decision making.
- The Climate Action Reserve Fund continued to support corporate climate initiatives, with approximately \$50,000 of the fund put towards projects in 2021.
- Internal engagement with staff across the organization on key climate actions continued.
- Public health guidelines postponed gatherings that could support work on understanding perspectives on how Indigenous knowledge can inform climate action at the CRD. Additional work to further this collaboration is planned for 2022.

CRD's Roles

Operational decision making

This goal contains

15

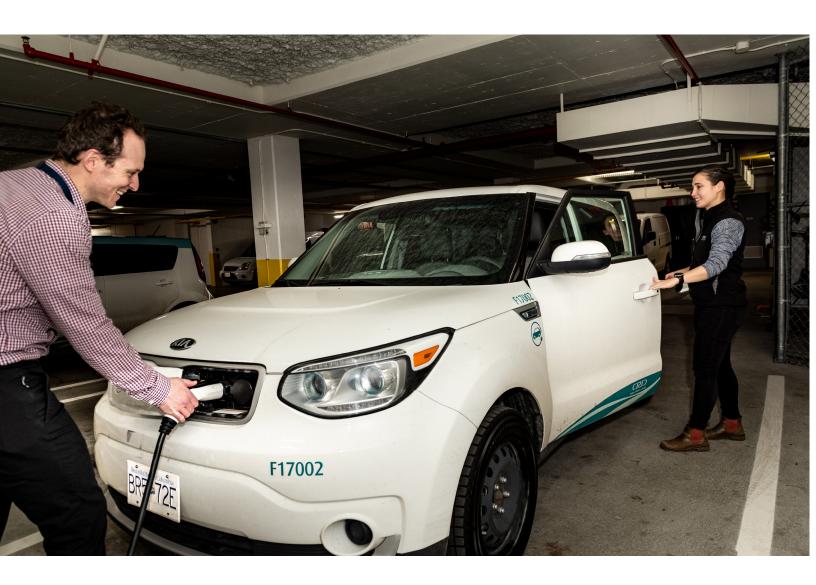
sub-actions over the next five years



Indicators



• 3,834 t CO2e (19% increase compared to 2020)





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.



How land use is managed has a strong influence on the 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 (RGS) 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.

Goal Progress Summary

- Monitoring of the RGS is ongoing, and the 2021 Regional Growth Strategy Indicator Report was published.
- Guidance was provided to municipalities currently undergoing Official Community Plan updates in alignment with RGS climate policies.
- Conducted the regional and local government GHG inventories for the 2020 year, collected other relevant data pertaining to emissions from various sources, and distributed to municipalities.

CRD's 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 over the next five years



- Continued to facilitate and administer several inter-municipal groups, including the Climate Action Task Force and Climate Action Working Group, Development Planning Advisory Committee, Local Government Emergency Program Advisory Commission, and the Regional Emergency Management Partnership. These networks serve to coordinate regional climate action and priorities and help to disseminate resources, reports and information.
- Efforts on sea level rise planning in 2021 focused on refining the results of the Capital Region Coastal Flood Inundation Mapping Project and distributing data to local governments and other project stakeholders.
- Emergency response plans that address heat waves, drought and extreme weather events were updated based on learnings from the 2021 season.
- Retained a FireSmart Coordinator through successful grant applications. This role will
 work with the electoral areas to enhance community resilience to wildfire threats
 through 2022.

Indicators



Regional GHG emissions

• 1.8 million tonnes of CO2e (5.2% decrease compared to 2018)



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.



Low-Carbon Mobility

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



On-road transportation is the region's largest source of greenhouse gas (GHG) emissions. Not only do vehicles release significant GHG 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 they are 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.

Goal Progress Summary

- In conjunction with the City of Victoria, the Township of Esquimalt and the Town of View Royal, applied for funding from the federal Zero Emission Infrastructure Program for over 100 charging ports to be used for both fleet and public charging.
- Planned for an education program on EVs for consumers, strata property owners, electrical and auto-mechanic trades. Applied for a grant from the federal Zero Emission Vehicle Awareness Initiative to conduct education and outreach with local government partners.

CRD's Roles

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

This goal contains

31

sub-actions over the next five years



- The CRD Board confirmed its transportation priorities and began implementing actions and advocating to senior governments.
- Monitoring of traffic and cycling volume continued and an additional six automated bicycle counters were installed. Work on the regional trail network continued, including:
 - Creation of 13 km of uninterrupted trail between Langford and Victoria on the E&N Rail Trail.
 - Development began on the first regional trail in the Southern Gulf Islands (SGI).
 - Community engagement on the SGI Transportation Integration Plan is complete, and a draft report is under review.
- BC Transit and the CRD completed the Salt Spring Island Transit Future Service Plan that identifies improvements to transit services on Salt Spring Island (SSI). The plan identified electrification of the transit fleet as a key objective for SSI.
- Continued to offer several education programs and initiatives regionally to promote and encourage active travel.
- Approximately 50 vehicle requests were reviewed as part of the green fleet policy, resulting in 21 electric vehicle orders in place or pending.
- A framework to support the coordinated deployment of corporate EV charging infrastructure is in development.

Indicato	Indicators			
	Regional EV Infrastructure Roadmap	Indicator(s) forthcoming		
0	Regional GHG emissions from transportation	• 784,875 t CO2e (16% decrease compared to 2018)		
0	Percentage of the Regional Trail Network completed*	• 48% (1% increase compared to 2020)		
0	Annual EV ICBC registrations (region fleet size)	• 6,822, 2.26% of total registrations (0.42% increase compared to 2020)		

Indicators



Annual CRD corporate fleet GHG emissions

• 1,301 t CO2e (2% increase compared to 2020)



Number of corporate EVs purchased/combustion vehicles replaced

• 9

Please see Appendix A for a full list of indicators for this goal *Progress on this indicator is reported in the Regional Growth Strategy Indicator Report.

Electric Vehicle (EV) Infrastructure Road Map

In 2021, the CRD developed this road map to support CRD and local government planning efforts around EV infrastructure. This project studied future charging station user needs and designs and outlined opportunities for collaboration between regional fleet owners and other key stakeholders. Implementation of the recommendations in the road map are anticipated to begin in 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.



A large portion of our regional greenhouse gas emissions (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.

Goal Progress Summary

- Received a grant from the Federation of Canadian
 Municipalities to conduct research and to design a Capital
 Region Residential Energy Retrofit Program. The first phase design study work was completed in 2021, and the results were shared with local government staff.
- Attended the provincial Step Code Peer Network and shared network information with local government staff.

CRD's 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



- Continued to consider climate change impacts, such as longer and higher intensity rainstorms and longer and drier summers, as part of the design criteria for water supply and wastewater systems.
- Developed a risk-based evaluation process for identifying undersize drainage structures, such as culverts, which incorporates design flow capacity needs and climate impacts.
- Advanced work on Drought Management Plans, as well as a Water Conservation Bylaw for the Southern Gulf Islands.
- Completed energy audits for eight corporate sites, with final results expected in 2022.
- Began conceptual planning to convert the Fisgard Headquarters building heating, ventilation and air conditioning system from fossil fuels to electricity.
- Supported coordination of regionally and municipally funded Cool It! Climate Leadership Training workshops through the BC Sustainable Energy Association, empowering students and their families to reduce their energy, water and carbon consumption.

Indicators



Regional Energy Retrofit Program

Indicator(s) forthcoming



Regional GHG emissions from buildings

• 710,008 t C02e (9% increase compared to 2018)



Annual CRD corporate facilities GHG emissions

• 2,533 t CO2e (29% increase compared to 2020)

Please see Appendix A for a full list of indicators for this goal





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.

Goal Progress Summary

- Worked cooperatively with several First Nations, inviting input on various park management plans and trail place names.
- Accessed more than 50 external ecological data sets for inclusion into a biodiversity inventory.
- Updated land cover classifications, including data on tree cover canopy change
- Supported efforts to improve stream flow monitoring in the region.

CRD's Roles

Stewardship of CRD lands

Land acquisition

Community and inter-municipal coordination

Education and outreach
Regional planning

This goal contains

19

sub-actions over the next five years



- Began implementation or planning of key recommendations of the Climate Change Adaptation Strategy for the Greater Victoria Water Supply Area (GVWSA)
- Undertook various initiatives to advance forest fuel management within the GVWSA.
- Planned and hosted invasive species best practices training workshops to help build municipal staff and partner capacity.
- Established the Saanich Peninsula Harbours and Waterways Initiative. Staff are engaging with First Nations to explore involvement in the region's harbour and waterways initiatives.
- Provided administrative support to the Regional Food and Agriculture Task Force.

 Progressed research and development of the Regional Foodlands Trust business case.
- Interpretive program learning outcomes in Regional Parks include understanding the impacts and risks of climate change.

Indicators



Percentage of Sea-to-Sea Green/Blue Belt acquired* • 91%



Hectares of regional park land

· 13,303



Number of volunteer stewardship hours

• 3,511 hours by 367 volunteers

Please see Appendix A for a full list of indicators for this goal

*Progress on this indicator 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

Product use and the disposal of the waste contributes to 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.

Goal Progress Summary

- In 2021, the Solid Waste Management Plan was approved and implementation began. The plan works to reduce waste generated in the region, which results in reduced GHG emissions.
- Continued to promote increased capture and utilization of landfill gas, reducing fugitive emissions and advanced Hartland renewable natural gas initiative.
- Ongoing monitoring and improvements to management of fugitive emissions at Hartland Landfill. It is expected that fugitive GHGs will continue to decline due to improvements in gas extraction infrastructure. More information can be found in the Hartland Landfill Operating & Environmental Monitoring Report.
- Education programs were somewhat challenging with COVID-19 restrictions; however, staff live-streamed virtual tours of Hartland Landfill and offered some in-person programs later in 2021.

CRD's Roles

Solid waste management

Liquid waste management

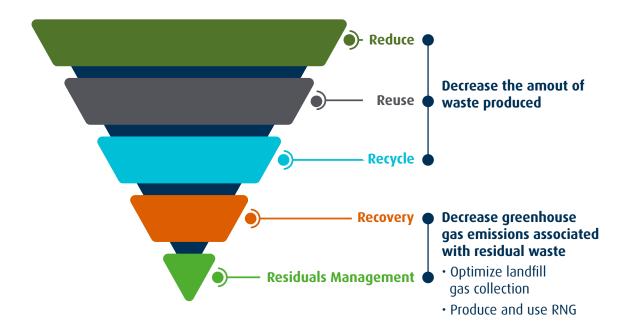
Education and outreach

This goal contains

8

sub-actions over the next five years





Indicators



rate

CRD's per capita disposal • 400 kg/per capita (1% increase compared to 2020)



Looking Ahead - 2022

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 2022 include:

- Regional Energy Retrofit Program: Building on the success of the Bring it Home 4
 Climate program, the CRD is preparing to launch a regional service in 2022 that will
 support residents in the region to undertake home energy retrofits and take advantage
 of incentives offered by the provincial and federal retrofit programs.
- Implementation of the Electric Vehicle (EV) Infrastructure Road Map: In 2021, the CRD created a road map for the region on how to accelerate installation of an EV charging network and find opportunities for collaboration. The CRD anticipates initiating implementation of this plan in 2022 through coordination of funding applications and deployment, and planning support and coordination of site selection for chargers.
- Capital Region E-mobility Awareness Initiative: In 2021, the CRD successfully applied to the federal Zero Emissions Vehicle Awareness Initiative to launch a region-wide outreach campaign to encourage the adoption of e-mobility technology. This campaign will spread awareness of the advantages of EVs and electric bicycle (e-bike) ownership in the capital region.
- **Origin Destination Household Travel Survey:** This survey, which produces the region's transportation mode share information, is conducted every five or six years and was last completed in 2017. An updated survey is anticipated to be completed 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.
- Green Building Policy: This draft policy will be reviewed in 2022 and will set standards for energy-efficient and low-carbon new construction and retrofits of corporate buildings. With this policy, the CRD can show climate leadership, progress toward climate targets, and minimize operational costs and GHG emissions.
- **Electrifying the CRD Fleet:** In 2022, the CRD anticipates building on the successful implementation of the Green Fleet Policy. At the end of 2021, nine EVs were on order or requested from vendors, and 12 additional requests for EVs were moving through the internal procurement process.



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.

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





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

	Status	Action	Update	
-[^]-	Progress on Actions			
Climate-Focused Decision Making	()	1-1 Integrate and standardize the climate lens framework across processes	 Development of a full-fledged climate lens continues through a combination of new corporate policy and evaluation tool development. Adopted the Green Fleet Policy to accelerate the transition to and operate a low-carbon "green" fleet. The corporate green building policy and internal carbon price policy are in development to support climate-focused decision making. A life-cycle assessment tool is in development by Asset Management to support evaluations that consider the many priorities of the CRD. A climate report card has been added to the 2021 annual climate reporting to provide a quick and actionable progress summary for the Board and departments. 	
Goal 1: Climate action priorities are integrated at all levels of decision	!	1-2 Develop internal carbon pricing policies and procedures	The internal carbon price policy is in development, with a draft under review by key staff.	
making across the organization.	>	1-3 Identify internal funding sources for climate action	• The Climate Action Reserve Fund continued to support climate initiatives, with approximately \$50,000 put towards projects starting in 2021.	
Overall Action Status	!	1-4 Support staff capacity building and coordination	 Internal climate action meetings for key staff continued in 2021. Introduction to the green fleet policy was provided in 2021. Staff training for climate action is a future opportunity to further increase climate action awareness internally. An internal SharePoint site was developed to profile the updated Climate Action Strategy and key policies and procedures, and connect staff with climate action resources. 	
Opportunity for Improvement	!	1-5 Investigate how Indigenous knowledge can inform climate action at CRD	 Public health guidelines due to the COVID-19 pandemic have postponed gatherings that could support this work. For 2022, staff will seek out opportunities for the Board and staff to learn from Indigenous perspectives on climate action, through collaboration, relationship building and cultural perspectives training. 	

Additional Action Plan Indicators



Annual CRD Corporate GHG emissions • 3,834 t CO2e (19% increase compared to 2020)



Overall Action Status

On Track





- 2-7 Incorporate regional climate projections into electoral area emergency planning and enhance FireSmart efforts
- Retained a FireSmart Coordinator through successful grant applications; this role will work with the electoral areas to enhance community resilience to wildfire threats through 2022.
- Created a Drought Advanced Plan for the CRD during the 2021 drought and fire season that was used to effectively coordinate and lead the organization's response. This will be repeated in the 2022 season.
- Collaborated with electoral area fire departments and emergency programs, organizational partners, and provincial agencies, such as BC Wildfire Services, as part of the CRD's wildfire preplanning for the 2021 fire season.

St	itatus	Action	Update
	•	2-8 Coordinate with emergency management stakeholders on planning and public outreach activities related to climate risks	• Staff continued to work with Local Government Emergency Program Advisory Commission, Regional Emergency Management Partnership and Province to coordinate outreach and planning activities.
		2-9 Investigate Transition SSI 2.0 Climate Plan implementation	• Future action

Regional Climate Process Indicators and Trends



Regional GHG emissions

• 1.8 million tonnes of CO2e (5% decrease compared to 2018)



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

Number of net new dwelling units in • 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 StatusOn Track

Status	Action	Update

Progress on Actions



- 3-1 Administer and track the new Green Fleet Policy
- Approximately 50 vehicle requests were reviewed as part of the green fleet policy, resulting in 21 electric vehicle orders in place or pending.



- 3-2 Develop electric vehicle (EV) adoption and right-sizing plan for the corporate fleet
- Completed the Federation of Canadian Municipalities grant-funded Zero Emissions Fleet Initiative.
- Consulted regularly with industry to identify new green vehicle developments. New electric vehicle (EV) opportunities have been promptly pursued, including orders for electric pickup trucks that have newly entered the market.



- 3-3 Develop EV infrastructure plan for the corporate fleet
- Developed a draft working framework for corporate EV infrastructure.
- Facilities Management and Engineering Services installed EV infrastructure at several facilities.
- Submitted federal grant application for new corporate EV infrastructure.



- 3-4 Investigate the feasibility of biobased diesel supply and storage
- Future action



- 3-5 Develop a region-wide approach to transportation demand management
- Future action



- 3-6 Collect and distribute transportation planning data regionally
- Collected data through the volunteer bike count in spring and fall 2021. Installed six automated counters in 2021, bringing the regional total to 23. Regional and Strategic Planning will begin working on a cycling volume estimation methodology in 2022.
- Completed the annual traffic count in fall 2021. Data is widely used by municipal and agency partners in their planning and forms an integral input into transportation modelling. The data is publicly available on a CRD web platform.
- Received preliminary 2022 budget approval to initiate and fund the Origin Destination Household Travel Survey, which produces the region's transportation mode share information. This project is anticipated to complete in 2022, with reporting on new mode share data in 2023.
- Worked closely with the City of Victoria and the District of Saanich to initiate a unique travel survey that will capture resident and business vehicle kilometres travelled. This project will help improve how those municipalities estimate transportation emissions.



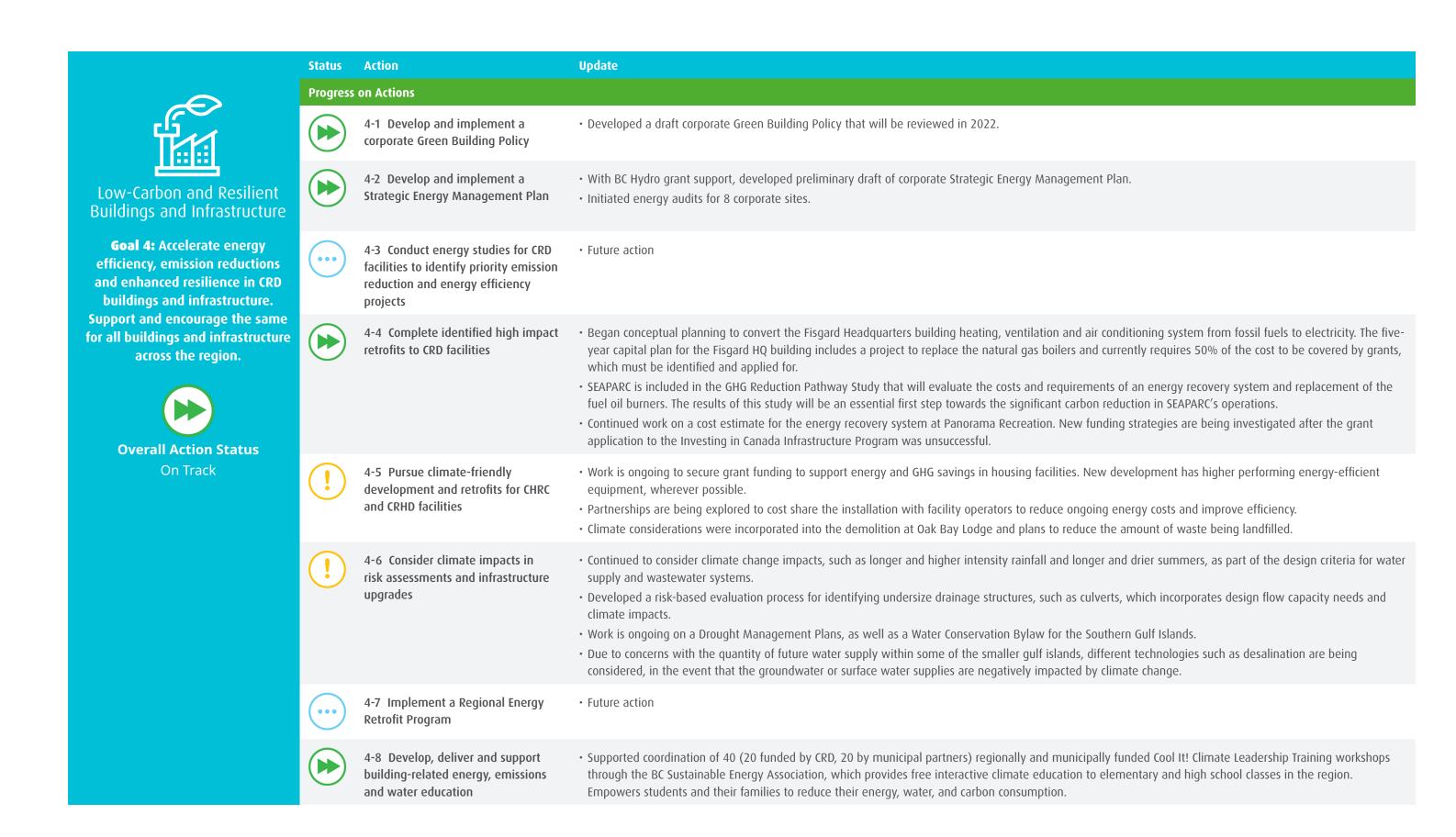
- 3-7 Accelerate infrastructure improvements that support active transportation
- The CRD Board confirmed its transportation priorities through a comprehensive process in 2021 and began implementing actions and advocating to senior governments on priorities.
- Member municipalities continue to build out the active transportation network identified in the Regional Transportation Plan (RTP) and the Pedestrian and Cycling Master Plan. CRD worked with several municipalities and BC Transit to ensure alignment between the RTP and local transportation planning processes.
- Completed Phase 3 of the E&N Rail Trail Humpback Connector, creating 13 km of uninterrupted trail between the City of Langford and the City of Victoria.
- Completed a Widening and Separation Feasibility Study for the priority areas identified in the Regional Trail Management Plan.
- Development of the first regional trail in the Gulf Islands (Mayne Island Regional Trail) is underway, supported by grant funding.
- Worked with other partners in the Salish Sea Trail Network, which is focused on seeking assistance for the development of the regional trail route on Salt Spring Island. Completed trail work on Salt Spring Island, expanding trail network.
- Completed Phase 1 and phase 2 of community engagement on the Southern Gulf Islands (SGI) Transportation Plan, and a draft report is under review by staff. The final report with service establishment recommendations will be completed in early 2022. The Service Bylaw Establishment Process is to be initiated in March 2022, with a referendum question scheduled to coincide with the 2022 General Election.

Status	Action	Update
) Status	3-8 Lead and support regional education programs focused on zero-emission mobility	 Successfully applied for a federal Zero Emissions Vehicle Awareness Initiative grant to develop and implement a regional outreach campaign in 2022 to increase awareness of the benefits of electric vehicle and electric bicycle ownership and address perceived barriers to support their adoption. Completed 2020/21 Ready Step Roll Active Travel Planning cohort of five schools and initiated 2021/22 cohort of five new schools. Developed a new campaign, Let's Get Visible - be bright in low light, to promote active travel safety. Updated the guidebook and resources for Walk & Wheel to School initiative.
!	3-9 Support acceleration of transit improvements and increased service	 BC Transit and the CRD completed the Salt Spring Island Transit Future Service Plan that identifies improvements to transit services on SSI. The plan identified electrification of the transit fleet as a key objective for Salt Spring Island. Initiated the SGI Transportation Integration Plan to support transportation options in the Southern Gulf Islands. Developed using a comprehensive community approach and grounded in sound technical analysis, the plan offers a strong foundation in support of the establishment of a transportation service (subject to elector assent and CRD Board approval).
•	3-10 Support a public electric vehicle charging network and encourage uptake of zero-emission vehicles	 Planned for education roll-outs on electric vehicles for consumers, strata property owners, electrical and auto-mechanic trades. Answered a request for proposals to the federal Zero Emission Infrastructure Program, in conjunction with the City of Victoria, the Township of Esquimalt, and the Town of View Royal for over 100 charging ports to be used for both fleet and public charging. Creation of guidelines and other materials to support public infrastructure deployment in the capital region is scheduled to start in 2022, with budget allocated to do so.
···	3-11 Implement Regional EV Charging Roadmap	• Future action
()	3-12 Improve internet access on Southern Gulf Islands	 Supporting Connected Coast and other internet service improvements on the islands. Achieving service improvements requires collaboration between several private and public sector actors. Subject to electoral assent and CRD Board approval, the SGI Electoral Area will establish a service to support community contributions towards last mile service development on islands, approved under the Connected Coast funding proposals.

Additional Action Plan Indicators				
	Regional EV Infrastructure Roadmap	Indicator(s) forthcoming		
0	Percentage of the Regional Trail Network completed*	• 48% (1% increase compared to 2020)		
0	Annual CRD corporate fleet GHG emissions	• 1,301 t CO2e (2% increase compared to 2020)		
Ü	Number of corporate EVs purchased/ combustion vehicles replaced	• 9		
	Number of CRD fleet EV chargers installed	• 10		

Regional	Climate Process Indicators and Trends	
0	Regional GHG emissions from transportation	• 784,875 t CO2e (16% decrease compared to 2018)
0	Percentage of total trips made by walking, cycling and transit in the Growth Management Planning Area*	 Not updated in 2021. Progress is being made toward the target. The past three Origin Destination Surveys show steady increases in active transportation and transit mode share over the past decade.
0	Annual EV ICBC registrations (region fleet size)	• 6,822, 2.26% of total registrations (0.42% increase compared to 2020)
0	Victoria Transit Region fuel sales	• 331,336,547 taxable litres (7% increase compared to 2020)

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

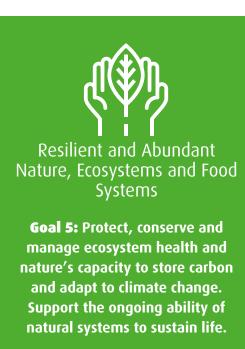


Status	Action	Update
()	4-9 Support acceleration of regional building energy benchmarking and local government regulation approaches	• Partnered with Building Benchmark BC to disclose headquarters building energy and emissions data. The aim of the program is to inform and inspire public and private sector leadership.
>	4-10 Coordinate high-performance building policy support and capacity-building activities	 Attended provincial Step Code Peer network and shared network information with capital region municipal staff via an Inter-municipal Working Group (IMWG). Received a grant from the Federation of Canadian Municipalities to conduct research and design a Capital Region Residential Energy Retrofit Program. First phase design study work was completed in September 2021, and the results were shared with capital region municipal staff via the IMWG.
>	4-11 Collect and share data and research on building energy use and emissions	• Conducted the 2020 regional and local government Global Protocol Community-Scale Basic+ GHG inventories and distributed results, which included data on building energy use and emissions.
!	4-12 Promote green infrastructure and improved stormwater management approaches	• Executed 'Live Green in your Backyard' campaign, incorporating messaging about the use of rain gardens and rainwater harvesting and their value in reducing pollution and conserving water. Animated videos were created showing how to reduce pollution from properties.
!	4-13 Understand climate impacts on groundwater resources in Juan de Fuca Electoral Area	• 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	• Future action
0	Number of site energy audits completed	• 8

Additional Action Plan Indicators				
0	Annual CRD corporate facilities GHG	• 2,533 t CO2e (29% increase compared to 2020)		
	Number of critical emissions reduction projects completed	• 0		
	Number of site energy audits completed	• 8		

Regional Climate Process Indicators and Trends				
	Regional Energy Retrofit Program	 Indicator(s) forthcoming 		
0	Annual FortisBC natural gas consumption numbers^	• 6,769,810 GJ (2020) (4% increase compared to 2019)		
0	Annual FortisBC natural gas connections^	• 56,446 (2020) (0.7% increase compared to 2019)		
0	Regional GHG emissions from buildings	• 710,008 t C02e (9% increase compared to 2018)		

^{^2021} data not available at the time of reporting.



Overall Action Status Opportunity for Improvement



Status	Action	Update				
Progress	Progress on Actions					
()	5-1 Integrate climate considerations into regional parks strategic and management planning	 Worked cooperatively 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 four park trails. Invited input from T'Sou-ke and Beecher Bay First Nations on preliminary work on East Sooke Regional Park and Matheson Lake/Roche Cove Regional Park management plans. Initiated update of the Regional Parks Strategic Plan, to be completed in 2022. Climate action will be represented in this new plan. 				
!	5-2 Monitor ecosystem health in the Greater Victoria Water Supply Area (GVWSA) and investigate expanding regionally	 The Watershed Hydrology Program is upgrading existing monitoring sites and instrumentation in the Sooke and Goldstream water supply areas (WSA) and expanding the number of streams being monitored in the Sooke WSA. In 2022, an update of the Terrestrial Ecosystem Mapping will refine the mapping of forest ecosystems. An acquisition of LiDAR data is planned for 2023 that will enable forest characteristics in the WSA to be more accurately classified and mapped. 				
!	5-3 Undertake climate adaptation initiatives to increase the resilience of the GVWSA	 Key recommendations of the Climate Change Adaptation Strategy for the GVWSA are being implemented or are in the planning stage. Completed updated risk assessments for major threats to water quality in the Greater Victoria WSA (e.g., wildfire) to incorporate climate change. 				
!	5-4 Provide regional and local ecological data to support planning and policy efforts	 Identified and downloaded more than 50 external ecological datasets for inclusion into a biodiversity inventory. Initiated conversations with municipal partners. Completed updated land cover classifications, which includes data on tree cover canopy change and impervious cover over time. Deliverables included a higher accuracy for canopy cover, change in canopy cover over time, and canopy height model and tree plan. Ongoing efforts to improve stream flow monitoring in the region. Provided technical and financial assistance to a non-profit to upgrade their hydrometric monitoring station. 				
()	5-5 Coordinate regional invasive species program	 Planned and hosted invasive species best practices training workshops to help build municipal staff capacity to increase partner capacity. Planned an online regional invasive species symposium with the Invasive Species Council of British Columbia. 				
···	5-6 Support regional forest and urban tree programs	• Future action				
!	5-7 Support Indigenous-led monitoring and restoration programs	 The CRD is building relationships with First Nations to help understand their priorities and interest and identify where the CRD can collaborate. Staff are working with the help of a consultant to determine best practices and next steps for supporting Indigenous employment within the CRD. Established the Saanich Peninsula Harbours and Waterways Initiative. Staff are engaging with First Nations to explore involvement in the region's harbour and waterways initiatives. 				
>	5-8 Support local food and agriculture planning and programs	 Provided administrative support to the Regional Food and Agriculture Task Force. Progressed research and development of the Regional Foodlands Trust business case. Regional and Strategic Planning will seek further Board direction in spring 2022. 				

• Participated in the Vancouver Island Agriculture Adaptation Working Group

	Status	Action	Update				
	!	5-9 Integrate climate impacts and solutions into environmental education and outreach campaigns	 Regional Parks interpretive programs address the role and benefits of parks, including their importance in preserving biodiversity and mitigating the effects of climate change. Interpretive program learning outcomes include understanding the impacts and risks of climate change. Participated in a regional UN Decade of Restoration committee, and promoted the UN Decade of Restoration and "Make a Difference Week", an annual week of global restoration action. Developed engagement materials to build awareness of backyard biodiversity. 				
Additional Action Plan Indicators			Regio	onal Climate Process Indicators and Trends			
Hectares of regional park lan	d • 13,3	303	•	Percentage of Sea-to-Sea Green/Blue Belt acquired*	• 91%		
Number of volunteer stewardship hours	• 3,51	11 hours by 367 volunteers	0	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 Adopted in 2021, the Solid Waste Management Plan works to reduce waste generated in the region, which results in reduced GHG emissions. The
plan continues to promote increased capture and utilization of landfill gas, reducing fugitive emissions and producing renewable natural gas to
displace fossil fuel usage.



- 6-2 Develop and deliver education programs to promote a circular economy, zero waste and the 3 Rs
- Education programs were somewhat challenging with COVID-19 restrictions; however, staff live-streamed virtual tours of Hartland Landfill on Earth Day, April 22nd reaching approximately 1,000 participants and offered some in-person programs later in 2021.



6-3 Support education and engagement on waste management to be delivered by and for First Nations communities

 $\boldsymbol{\cdot}$ Relationships are being established to support this collaborative action.



6-4 Continue to maximize and optimize the capture of landfill gas for beneficial use

• Monitoring and improvements to the management of fugitive emissions are ongoing. It is expected that fugitive greenhouse gas emissions will continue to decline due to improvements in gas extraction infrastructure. More information can be found in the Hartland Landfill Operating & Environmental Monitoring Report.



6-5 Consider climate change impacts in liquid waste management

Future action

Regional Climate Process Indicators and Trends



CRD's per capita disposal rate

• 400 kg/per capita (1% increase compared to 2020)





Local Government Climate Action Program Attestation Form

Instructions for the	Attestor:							
. Complete and sign this form by filling in the fields below.								
Email the comple	Email the completed and signed form to LGCAP@gov.bc.ca.							
	Officer, or equivalent position nment) confirm the following:		ional District					
action. That if funds are That a completed Secretariat, Mini a. If council That a completed	stry of Environment and Clima approval is required, it will be d and signed version of this for d and exported version of the	pent by the end of Ma rm will be submitted b ate Change Strategy by e submitted no later th rm will be publicly pos	rch 2025. by email to the Climate Action July 29, 2022. han September 30, 2022. sted by September 30, 2022.					
Attested to by me at (date)July 22, Signature of Attestor		Capital Regional D	istrict on					
Title or Profession of	stor:Nelson Chan Attestor (i.e. Chief Financial O nancial Officer							
Telephone Number o 250-360-3645_	f Attestor:							
Email Address of Atte nchan@crd.			<u> </u>					
Iinistry of Environment Climate Change Strate		Mailing Address: PO Box 9486 Stn Prov Govt Victoria BC_V8W 9W6	Email: env.mail@gov.bc.ca Website: http://www2.gov.bc.ca/gov/content/					

environment/climate-change