



# COWICHAN, OUR CLIMATE IS CHANGING

We have a plan to adapt



## TAKING ACTION ON THE NEW NORMAL

Climate Change Adaptation Implementation Plan 2023-2026  
**2024 Update**

Climate change is a global issue that is affecting us at the regional level. The people that live and work in the Cowichan Valley Regional District (CVRD) are experiencing the impacts of climate change now as part of their everyday lives. With changing climatic conditions like hotter and drier summers, wetter winters, and more intensive storms, comes the increased likelihood of impacts felt throughout the region, including prolonged heat waves, wildfires, droughts, and flooding.

**It's time to act to adapt to the new normal.**

Cowichan Region Climate Adaptation Partners have developed a Board approved Climate Adaptation Strategy which includes local solutions to help us prepare. The Strategy will help move our region forward by focusing on activities to improve our built infrastructure, enhance our health and emergency preparedness systems, enable green economic growth, and preserve local biodiversity.

This document summarizes the Adaptation Strategy and Implementation Plan activities that will guide our efforts. The Implementation Plan will be updated every four years.



[CVRDNEWNORMALCOWICHAN.CA](http://CVRDNEWNORMALCOWICHAN.CA)

# PARTNERS IN CLIMATE ADAPTATION

**Who is responsible for implementation?** Responsibility for implementation is shared among a sizable number of agencies, companies, and organizations. We can work together towards shared goals of protecting water quality and quantity and supporting our ecosystems. We can share costs, information, and tools, thereby magnifying the impact of our individual efforts.

Through supportive working relationships, we can collectively and more effectively influence the planning and policies of senior government agencies that can increase our capacity to adapt. Perhaps most importantly, we can draw upon the skills and expertise of external partners, community organizations, and individuals as **Cowichan Adapts** to the new normal.

## LOCAL GOVERNMENT

Cowichan Valley Regional District, City of Duncan, Municipality of North Cowichan, Town of Ladysmith, Town of Lake Cowichan

## FIRST NATIONS

Cowichan Tribes, Ditidaht First Nation, Halalt First Nation, Lyackson First Nation, Malahat Nation, Pacheedaht First Nation, Pauquachin First Nation, Penelakut Tribe, Stz'uminus First Nation, Ts'uubaa-asatx First Nation

## OTHER REGIONAL AGENCIES

Regional District of Nanaimo, Capital Regional District, The Islands Trust (Thetis Island Local Trust Area), Island Health, School Districts

## NON-GOVERNMENT ENTITIES

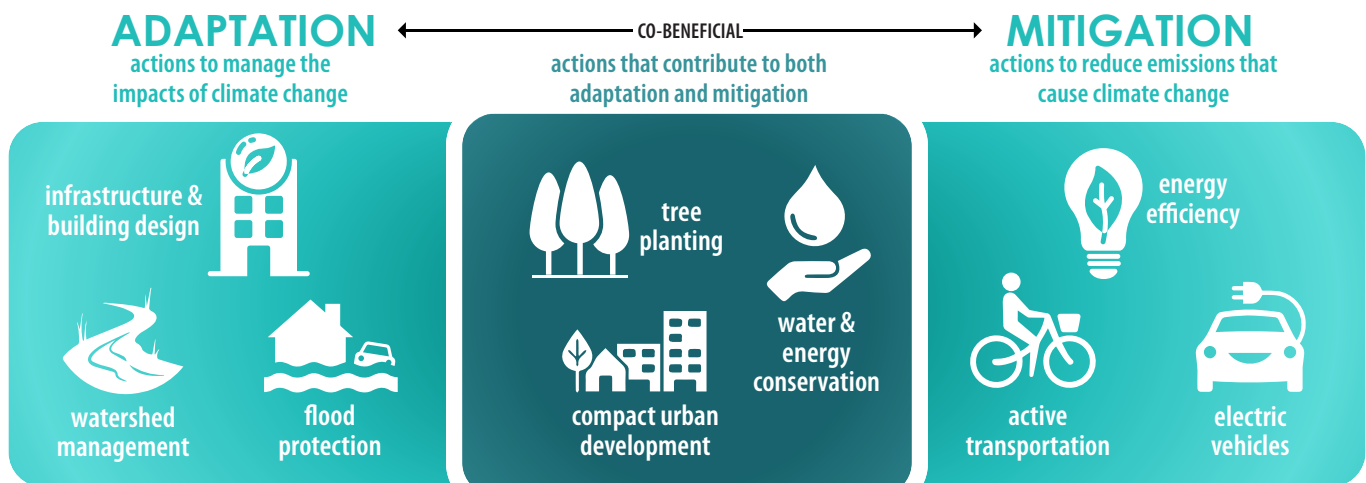
Improvement Districts and Private Water Utilities, Environmental Non-Governmental Organizations, Mosaic Forest Management, Agricultural producers

## FEDERAL & PROVINCIAL GOVERNMENT



## WHAT DO ADAPTATION & MITIGATION MEAN?

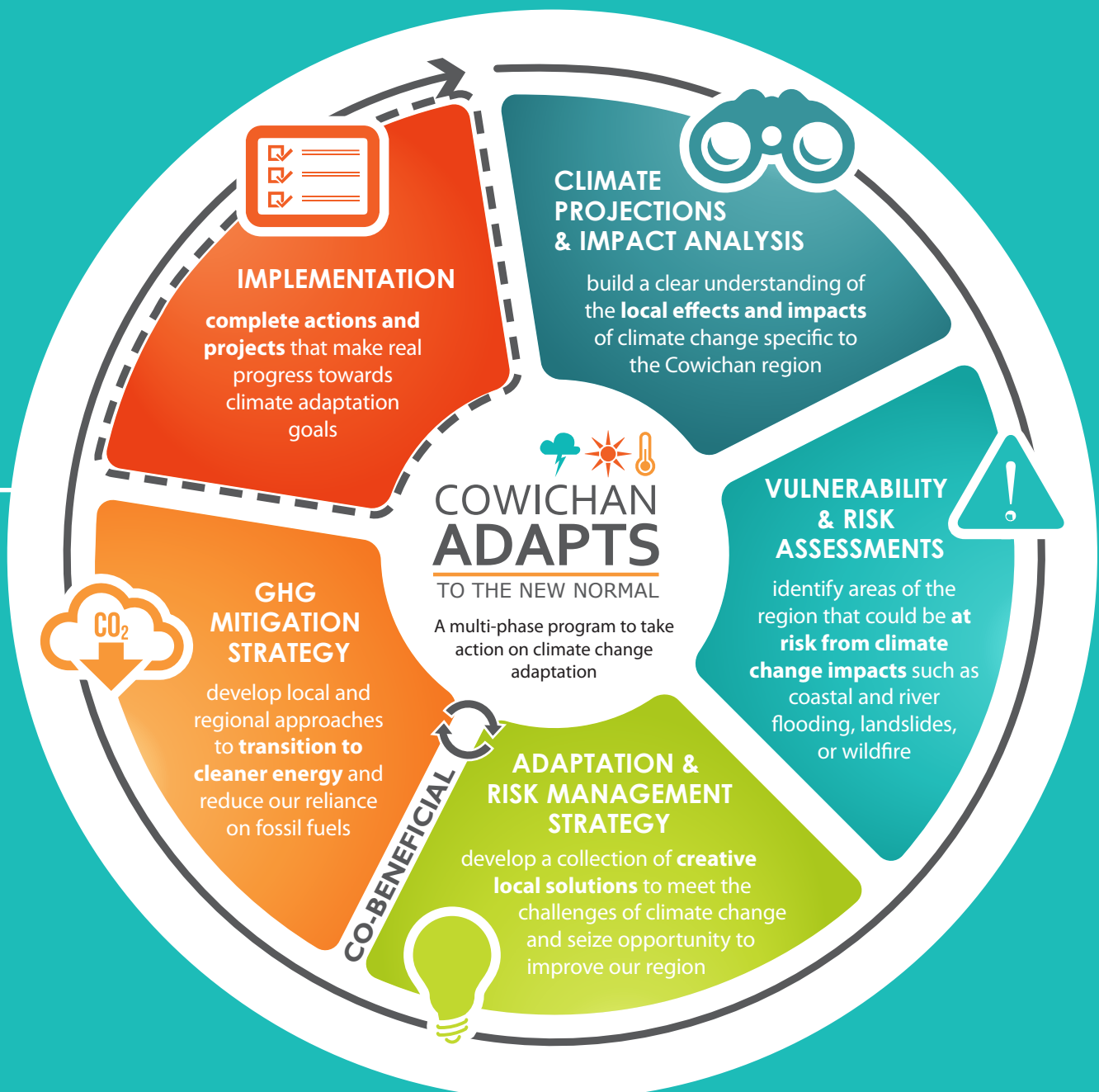
**Adaptation** initiatives reduce the vulnerability of natural and human systems to climate change effects. **Mitigation** initiatives reduce the amount of greenhouse gases released into the atmosphere, which ultimately cause climate change. Both adaptation and mitigation are essential for managing climate change risks.



# CLIMATE CHANGE ADAPTATION PROCESS

Adaptation doesn't happen overnight. It is a phased and evolving process, taking place through thoughtful analysis, strategy, and actions. While action is the current focus, all other steps will continue to be developed so that our actions are informed by the most updated local knowledge.

**Cowichan Adapts focuses on implementation.**





# PROJECTIONS

**Our local climate is changing – fast – so we need action now.** Our region's ability to adapt requires specific information on how changes in temperature and precipitation will play out locally, how impacts may differ across seasons, and what new climate extremes our region may face. Work has been completed to understand how the Cowichan region's climate may change in the future so we know we need to act.

It is important to remember that climate change cannot be predicted with absolute certainty. How we adapt will require us to be flexible enough to accommodate some uncertainties.

## Rainstorms will grow more intense.

More rain in a shorter period of time can increase risk of flooding or landslip which means risks to property, infrastructure, the environment, and people.

## We will see fewer frost days.

Fewer frost days will affect what species thrive in our ecosystems while a projected decrease in our snowpack of ~85% by the 2050s will impact watershed health.

## Summers will get hotter.

While double the number of summer days with temperatures above 25°C may seem good at first, we can expect more heat domes, wildfires, energy consumption, and health impacts from heat.

## Summer will be drier, and fall and winter will be wetter.

Uneven distribution of precipitation means we may not get enough rain when we need it most, and too much at other times, affecting residents and our economy.



# IMPACTS & SOLUTIONS

**Climate change impacts almost every aspect of our community.** The Implementation Plan connects impacts with adaptation solutions to help us proactively prepare for climate change now.



## OUR INFRASTRUCTURE

More extreme conditions, such as drought and heavier rainfall, place pressure on our infrastructure including our stormwater systems, sewage and water treatment facilities, transportation networks, and hydro and communications services.

**To adapt...**  
...we will need to make our built environment more durable, functional, and sustainable.



## OUR HEALTH & SAFETY

Extreme heat and drought can have human health impacts, especially for vulnerable populations. Flooding or landslip from extreme precipitation can lead to serious emergencies. Our mental health can be impacted by uncertainty and dealing with the stress of climate impacts.

**To adapt...**  
...we will need to prepare for and respond quickly to impacts associated with extreme weather and changing climate conditions.



## OUR BUSINESS & ECONOMY

Climate impacts such as heat stress, drought, wildfire, invasive species, pests and pathogens, and plant diseases affect our industries, especially our agricultural, forestry, and tourism sectors. These impacts present a risk to our food security through threats to crop productivity.

**To adapt...**  
...we will need to help our businesses and industry adapt to a changing climate while enabling a thriving economy.



## OUR ENVIRONMENT

As our region grows, we increase demand on the environment that supports us. Climate impacts can aggravate environmental pressures with decreases in water availability during the summer, increases in contaminants in our watersheds, increases in invasive species, and loss of habitats that support our ecosystems, food, and cultural needs.

**To adapt...**  
...we will need to preserve and enhance local biodiversity and the resilience of the natural environment and water resources.

# A STRATEGY FOR OUR REGION

**The Cowichan Adapts Implementation Plan is our road map to climate action in the Cowichan region.** The Plan identifies goals, objectives, actions, and current activities to help us prepare for future impacts. Now, it's time to implement it.

## 1 VISION

provides an enduring, shared purpose for staff, elected officials, partners, and residents as we work on climate change adaptation

*Cowichan Region Climate Adaptation Partners will take a proactive approach to prepare the systems in our region for the impacts of a changing climate.*

## 6 GOALS

provide overarching guidance on the breadth of what we wish to achieve through Cowichan Adapts

- 1 Build upon the region's current work on climate change adaptation and hazard preparedness.
- 2 Increase the resilience of infrastructure, programs, and services to the changing climate in the Cowichan region.
- 3 Protect the health, prosperity, and well-being of residents, especially vulnerable populations, to climate extremes.
- 4 Foster sustainable development and economic growth, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies.
- 5 Protect, conserve, and improve terrestrial and aquatic ecosystem health from the impacts of climate change.
- 6 Improve the awareness, knowledge, skills, and resources of government, citizens, and business people regarding climate change adaptation.

## 5 THEMES around which 20 OBJECTIVES outline focus areas for future action



THEME 1  
**Resilient Grey & Green Infrastructure**



THEME 2  
**Community Health & Emergency Management**



THEME 3  
**Green Growth & Sustainable Development**



THEME 4  
**Ecosystems & Bioregional Carrying Capacity**



THEME 5  
**Cross Cutting Actions (apply to all actions)**

39

**PRIORITIZED ACTIONS**



## 20 OBJECTIVES

Objectives and supporting actions are organized around the five themes. Objectives shown in *italics* indicate community and partnership-based actions in which CVRD would provide support, but actions would typically be led by another organization.



### THEME 1 Resilient Grey & Green Infrastructure

Actions to improve the climate resiliency of the built environment, including its durability, functionality, and sustainability.

- 1 Consider climate change information in land use planning and the design, construction, and maintenance of infrastructure in the region.
- 2 Continue to upgrade stormwater management systems and pursue integrated flood management approaches for reducing flood damage and preserving vital ecosystems.
- 3 Reduce the risk of power outages due to extreme weather events.
- 4 *Work with community partners to expand use of green infrastructure.*



### THEME 2 Community Health & Emergency Management

Actions to prepare for and respond quickly to impacts associated with extreme weather and changing climate conditions

- 5 Minimize wildfire risk and associated impacts to the community, environment, and public health and safety, especially amongst vulnerable populations.
- 6 Minimize disaster risk caused by natural hazards and extreme weather events among residents, businesses, and the community.
- 7 *Work with community partners to minimize health issues caused by extreme weather, especially for vulnerable populations.*
- 8 *Work together to strengthen capacity to respond to weather-related emergencies.*



### THEME 3 Green Growth & Sustainable Development

Actions to help our businesses and industry adapt to a changing climate while enabling a thriving economy.

- 9 Attract, retain, and expand local agriculture and agri-food businesses to support food security.
- 10 Support regional business innovation and continuity in the face of a changing climate.
- 11 *Improve local water security for agricultural lands, and continue to monitor, assess, and manage water.*
- 12 *Support and encourage community stakeholders to incorporate climate change adaptation into agricultural and food security planning.*
- 13 *Encourage the local forest industry to adapt to the changing climate.*



### THEME 4 Ecosystems & Bioregional Carrying Capacity

Actions to preserve and enhance local biodiversity and the resilience of the natural environment and water resources.

- 14 Steward, protect, and restore the region's ecosystems and biodiversity in an era of climate change and continued population growth.
- 15 Steward, protect, and restore Cowichan region watersheds in the face of climate change, continued population growth, and other development pressures including forestry and mining.
- 16 Prepare for shifts in ranges of existing species and influxes of new invasive species.
- 17 *Support education and outreach on watershed health, tree planting, and ecosystem management.*



### THEME 5 Cross Cutting Actions (apply to all actions)

Actions to build capacity, encourage resilience, and integrate climate risk management in virtually all aspects of future work in the region.

- 18 Research, monitor, and disseminate lessons learned on climate change projections, impacts, and adaptive actions.
- 19 Mainstream climate change adaptation into regional policies, programming, actions, and disaster risk reduction strategies.
- 20 Maximize collective impact against climate change through partnerships with local First Nations.





## RESILIENT GREY & GREEN INFRASTRUCTURE

**Climate change will put additional stress on the Cowichan region's critical green and grey infrastructure.** The region is committed to strengthening the resilience of its infrastructure systems to climate change and other non-climate factors such as land use changes, population growth, and aging infrastructure. Proactive preparation will help prevent disruption of essential services and support community safety.



### WHAT DOES GREY AND GREEN INFRASTRUCTURE MEAN?

Grey infrastructure refers to built systems that manage our water resources, stormwater, and wastewater such as pipes, drains, reservoirs, and water treatment facilities. Green infrastructure is the combined natural networks and built systems that mimic natural processes, such as raingardens or absorbent landscapes, that capture, filter, and absorb rainwater where it falls, reducing run-off and flood risk.



## OBJECTIVE 1: Consider climate change information in land use planning and the design, construction, and maintenance of infrastructure in the region.

### ACTIONS

**Action 1.1:** Continue conducting climate risk assessments as part of asset management planning and ensure rigorous data collection and tracking.

**Action 1.2:** Document climate change risk assessment results into Sustainable Service Delivery Plans (SSDPs) for local government infrastructure in the region and implement the actions in the SSDPs.

**Action 1.3:** Promote higher development and engineering standards that reflect the best available climate information by updating bylaws and design requirements and follow a regular review cycle for ongoing improvement.

**Action 1.4:** Include climate change and environmental considerations in land use planning including Official Community Plans (OCPs), development permit areas, zoning, and development guidelines and bylaws.

**Action 1.5:** Develop regionally-coordinated active transportation planning.

### PRIORITY

High  
Priority

High  
Priority

Medium  
Priority

High  
Priority

High  
Priority

### CURRENT ACTIVITIES 2024 TO 2026

» **CVRD:** Conduct climate risk assessments for parks and trails; recycling and solid waste; water and sewer systems; and recreation, community hall, and office facilities

» **CVRD:** Complete SSDPs for parks; recycling and solid waste; water and sewer systems; and recreation, community hall, and office facilities

» **CVRD, North Cowichan, Duncan, Ladysmith:** Update subdivision servicing bylaws, zoning bylaws, engineering standards, and development policies

» **CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:** Update OCPs and Development Permit Guidelines to include current climate change guidance

» **CVRD:** Implement flood management bylaws, train local government staff on existing and future climate change policy tools

» **North Cowichan:** Coordinate land use development to achieve compact communities that encourage active transportation based on the Transportation Master Plan

» **Lake Cowichan:** Link existing greenhouse gas (GHG) mitigation policies to adaptation objectives, consider updating the Stormwater Management Plan

» **CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:** Plan and develop linkages between CVRD communities and with neighbouring regions

» **CVRD:** Begin implementing the Board approved (2023) CVRD active transportation plan.

» **North Cowichan:** Implement the Transportation Master Plan recommendations, allocate budget to new active transportation infrastructure, participate in the regional Active Transportation Plan

» **Duncan:** Develop and implement a Transportation and Mobility Strategy that includes active transportation

» **Lake Cowichan:** Review sidewalk widths in the Subdivision Servicing bylaw, pursue funding for key transportation infrastructure

» **Ladysmith:** Develop active transportation infrastructure

## OBJECTIVE 2:

Continue to upgrade stormwater management systems and pursue integrated flood management approaches for reducing flood damage and preserving vital ecosystems.

### ACTIONS

**Action 2.1:** Establish Rainwater / Stormwater Management Plans for the region including opportunities and methods to expand integration as a key component of the stormwater management network.

**Action 2.2:** Develop Integrated Flood Management Plans for all regional floodplains and coastlines that account for climate change. For future developments in floodplains, include consideration for “no adverse impact” policy that ensures the action of any community or property owner does not adversely impact the property and rights of others.

### PRIORITY

Medium  
Priority

Medium  
Priority

### CURRENT ACTIVITIES 2024 TO 2026

- » **CVRD, Lake Cowichan:** Identify opportunities for green infrastructure through climate risk assessments and development of Sustainable Service Delivery Plans
- » **North Cowichan:** Undertake a natural assets initiative, incorporate sustainable infrastructure for water and sewer systems and stormwater management into the updated OCP and implement new policy
- » **CVRD, North Cowichan:** Develop Chemainus River Flood Management Planning based on updated mapping for the Chemainus River Floodplain, install river alarm systems for the Cowichan, Koksilah, and Chemainus Rivers, and update and implement the Cowichan Integrated Flood Management Plan
- » **Duncan:** Participate in development of a collaborative governance framework for flood management in the Cowichan / Koksilah Floodplain
- » **Lake Cowichan:** Update the Subdivision and Servicing bylaw, consider updating the Stormwater Management Plan

## OBJECTIVE 3:

Reduce the risk of power outages due to extreme weather events.

### ACTIONS

**Action 3.1:** Continue to explore opportunities and feasibility of decentralized energy generation and distribution in the region, as well as energy generation, storage, and distribution for regional assets.

### PRIORITY

Low  
Priority

### CURRENT ACTIVITIES 2024 TO 2026

- » **North Cowichan:** Explore opportunities for a District Energy (DE) system (a network of hot and cold water / wastewater pipes used to efficiently heat or cool buildings) and advance work towards solar photovoltaic (PV) systems that use the sun to generate energy

## OBJECTIVE 4:

Work with community partners to expand the use of green infrastructure.

COMMUNITY & PARTNERSHIP LED

### ACTIONS

**Action 4.1:** Work with member municipalities and partners to consider how green infrastructure can be expanded on private properties.

### PRIORITY



### CURRENT ACTIVITIES 2024 TO 2026

- » To be identified by Cowichan Region Climate Adaptation Partners

### PRIORITIES LEGEND



High Priority  
(within the next 1-4 years)



Medium Priority  
(within the next 6 years)



Low Priority  
(within the next 10 years)



To be identified in  
future years





## COMMUNITY HEALTH & EMERGENCY MANAGEMENT


**Climate change is already affecting human health and safety and will continue to pose challenges in the future.** The extent of these effects depends on how quickly the climate changes, and how well we adapt to new environmental conditions. Climate change and its related health risks can have both physical and social impacts. Emergency preparedness helps us be able to respond quickly and effectively to extreme events.



## CLIMATE CHANGE ADAPTATION & EQUITY

Vulnerable populations, such as seniors and low income residents, will be more affected by climate change impacts than others as they can have resource limitations or health conditions that make them more susceptible to issues like poor air quality or extreme heat. It will be important to ensure that solutions equitably support everyone in the region.

## OBJECTIVE 5: Minimize wildfire risk and associated impacts to the community, environment, and public health and safety, especially for vulnerable populations.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 5.1:</b> Align the region's Community Wildfire Resilience Plans and make the plans more accessible to partners.		» To be identified
<b>Action 5.2:</b> Develop a regional FireSmart program based on the recommendations of the Hazard, Risk, and Vulnerability Assessment (HRVA). Continue to promote FireSmart tools and prevention principles to help residents in the region better protect themselves and their properties from wildfire risks.	Low Priority	» <b>CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:</b> Roll-out program on an ongoing basis
<b>Action 5.3:</b> Establish community clean air shelters to mitigate the impact of wildfire smoke on vulnerable populations.	Low Priority	» <b>CVRD:</b> Install air quality sensors in community centres, establish related policy
<b>Action 5.4:</b> Continue to support the Cowichan Regional Airshed Roundtable and actions outlined in the Cowichan Regional Airshed Protection Strategy.	Medium Priority	» <b>CVRD:</b> Implement the updated Airshed Protection Strategy (2023) and roll-out program on an ongoing basis

## OBJECTIVE 6: Minimize disaster risk caused by natural hazards and extreme weather events among residents, businesses, and the community.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 6.1:</b> Conduct a HRVA to develop an integrated assessment of flood, wildfire, landslide, and natural hazard risks to critical infrastructure, social wellbeing, and public safety, and develop controls to manage identified risks.	High Priority	» <b>CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:</b> Establish governance structure, conduct an HRVA » <b>North Cowichan:</b> Incorporate Climate Risk Assessment into Adaptation Strategy planning
<b>Action 6.2:</b> Establish a monitoring system for current and forecasted flood, drought, air quality, and weather to understand potential community health impacts.	High Priority	» <b>CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:</b> Establish a monitoring network, update and maintain the air quality monitoring system, and manage and report results
<b>Action 6.3:</b> Develop, test, and update emergency response plans that address flooding, extreme heat, wildfire, and landslides based on controls recommended in the HRVA.	High Priority	» <b>CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:</b> Action pending completion of the HRVA » <b>Lake Cowichan:</b> Assess flood risks as develop emergency response plans
<b>Action 6.4:</b> Rebuild public communications as a regional program focused on emergency preparedness according to hazard types that are relevant for each neighbourhood or community.	Low Priority	» <b>CVRD:</b> Action pending completion of the HRVA



## ACTIONS

**Action 6.5:** Develop and deliver ongoing education and outreach to homeowners and the larger community on the projected impacts of increasing natural hazards affecting the region.

**Action 6.6:** Develop a regional Natural Hazards Disaster Risk and Recovery Strategy (NHDRRS).

## PRIORITY

High  
Priority

Medium  
Priority

## CURRENT ACTIVITIES 2024 TO 2026

» **CVRD, North Cowichan, Duncan:** Develop climate adaptation outreach and public communications materials including web content, hazard information, and videos

» **CVRD:** Undertake flood, slope, and watershed planning

## OBJECTIVE 7:

COMMUNITY & PARTNERSHIP LED

Work with community partners to minimize health issues caused by extreme weather, especially for vulnerable populations.

## ACTIONS

**Action 7.1:** Encourage the development of shared cooling spaces in all buildings housing vulnerable populations (e.g., shelters, daycares, long-term care homes, etc.).

**Action 7.2:** Continue to update the Cowichan Communities Health Profile to support continuous improvement and action towards improving regional health.

**Action 7.3:** Develop early warning systems and response plans that alert community members when projected heat conditions or poor air quality pose a health risk.

## PRIORITY



## CURRENT ACTIVITIES 2024 TO 2026

» To be identified by Cowichan Region Climate Adaptation Partners

» To be identified by Cowichan Region Climate Adaptation Partners

» To be identified by Cowichan Region Climate Adaptation Partners

## OBJECTIVE 8:

COMMUNITY & PARTNERSHIP LED

Work together to strengthen capacity to respond to weather-related emergencies.

## ACTIONS

**Action 8.1:** Strengthen the capacity of organizations that assist in disaster response to prepare for potential climate change impacts.

**Action 8.2:** Pilot a neighbourhood resilience program with municipal partners to expand equitable neighbourhood resilience planning, targeting locations that have a higher risk of experiencing impacts from climate change.

## PRIORITY



## CURRENT ACTIVITIES 2024 TO 2026

» To be identified by Cowichan Region Climate Adaptation Partners

» To be identified by Cowichan Region Climate Adaptation Partners

## PRIORITIES LEGEND



High Priority  
(within the next 1-4 years)



Medium Priority  
(within the next 6 years)



Low Priority  
(within the next 10 years)



To be identified in  
future years



## GREEN GROWTH & SUSTAINABLE DEVELOPMENT

**Climate change is presenting challenges in our communities with prolonged summer drought and extreme storm events.** These impacts bring uncertainties to the forestry, agriculture, and tourism industries with wildfire risks, water restrictions, and property damage. A changing climate can also bring opportunities such as a prolonged growing season and shifts in production. The actions aim to minimize economic impacts while trying to seize opportunities to enhance our region.



### COWICHAN FARM & FOOD HUB

The Cowichan Farm & Food Hub is a community farm, seed bank, and shared-use space between food and agricultural businesses on Municipality of North Cowichan land. It increases access to commercial processing spaces, including equipment, expertise, and resources to help people grow their businesses.

Developed by Cowichan Green Community in collaboration with Economic Development Cowichan and Provincial funding support, the project is an example of how partnerships between government and not-for-profit organizations can enhance food security in the region.

## OBJECTIVE 9: Attract, retain, and expand local agriculture and agri-food businesses to support food security.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 9.1:</b> Develop strategic agriculture plans and promote direct farm marketing for areas in the region that have a significant agricultural sector.	Medium Priority	» <b>CVRD:</b> Develop statistics for land use and infrastructure to support agriculture
<b>Action 9.2:</b> Support urban agriculture and/or small-scale food production within residential areas to support food security.	Medium Priority	» <b>CVRD:</b> Investigate food security policies such as urban hens, urban bee keeping, spin farming, community gardens, public produce, and other initiatives
<b>Action 9.3:</b> Strengthen agriculture policy directions in all Official Community Plans (OCPs) in the region.	Low Priority	» <b>CVRD:</b> Progress agricultural policy as part of the Modernized Official Community Plan (MOCP) process » <b>North Cowichan, Duncan:</b> Update OCP to include agricultural policy to protect agricultural land base and expand and diversify local food production
<b>Action 9.4:</b> Expand communications and education to local residents on the importance of buying locally and accessing local markets.	Medium Priority	» <b>CVRD:</b> To be identified in future years » <b>Duncan:</b> Update OCP to include local policy related to purchasing

## OBJECTIVE 10: Support regional business innovation and continuity in the face of a changing climate.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 10.1:</b> Develop a Regional Circular Economy Strategy / Action Plan.	Medium Priority	» <b>CVRD:</b> Undertake pre-planning development
<b>Action 10.2:</b> Work with Private Managed Forest Land (PMFL) Program partners to maintain currency with policy and practices that protect the working forest base and values of non-timber forest products.	Low Priority	» <b>CVRD:</b> To be identified in future years
<b>Action 10.3:</b> Work with local businesses and tourism industries to explore adaptation options, business continuity planning, and diversification in the face of a changing climate.	Medium Priority	» <b>CVRD:</b> Undertake ongoing outreach to local business communities » <b>North Cowichan:</b> Update OCP to include local regenerative economy section to support sustainable growth » <b>Lake Cowichan:</b> Consider establishing an Economic Development Working Group
<b>Action 10.4:</b> Develop long-term agriculture water sustainability plans.	Medium Priority	» <b>CVRD:</b> Review and update the agricultural water demand model, incorporate Koksilah watershed management planning into the Drinking Water and Watershed Protection (DWWP) program and into land use planning



**OBJECTIVE 11:** Improve local water security for agricultural lands, and continue to monitor, assess, and manage water.

**ACTIONS**

**Action 11.1:** Support and continue promotion of sustainable farming practices and innovative technologies pertaining to water usage.

**PRIORITY**



**CURRENT ACTIVITIES 2024 TO 2026**

» To be identified by Cowichan Region Climate Adaptation Partners

**OBJECTIVE 12:** Support and encourage community stakeholders to incorporate climate change adaptation into agricultural and food security planning.

**ACTIONS**

**Action 12.1:** Encourage farmers to develop Environmental Farm Plans.

**PRIORITY**



**CURRENT ACTIVITIES 2024 TO 2026**

» To be identified by Cowichan Region Climate Adaptation Partners

**Action 12.2:** Encourage area municipalities to adopt the Cowichan Food Charter.



» To be identified by Cowichan Region Climate Adaptation Partners

**OBJECTIVE 13:** Encourage the local forest industry to adapt to the changing climate.

**ACTIONS**

**Action 13.1:** Encourage the adoption of climate change adaptation into forest management planning for local industries.

**PRIORITY**



**CURRENT ACTIVITIES 2024 TO 2026**

» To be identified by Cowichan Region Climate Adaptation Partners

**PRIORITIES LEGEND**



High Priority  
(within the next 1-4 years)



Medium Priority  
(within the next 6 years)



Low Priority  
(within the next 10 years)



To be identified in  
future years



## ECOSYSTEMS & BIOREGIONAL CARRYING CAPACITY

**Climate change, population growth, and urban development are placing significant pressure on natural assets and watershed areas that support us.** As one of the most biologically rich areas in Canada, the Cowichan region consists of a complex mosaic of rare bio-geoclimatic zones, habitats, and species as well as 18 watershed planning areas. The watersheds provide valuable services to our region.



**We need to take care of these lands and waterways to address key concerns within the river system in order for our culture, people, fisheries, and economy to be protected and thrive.**



— Chief William Seymour, Cowichan Tribes

## OBJECTIVE 14: Steward, protect, and restore the region's ecosystems and biodiversity in an era of climate change and continued population growth.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 14.1:</b> Conduct ongoing research to update the Environmentally Sensitive Areas (ESA) Strategy and ensure climate change impacts are adequately addressed over the long-term.	Medium Priority	<ul style="list-style-type: none"> <li>» <b>CVRD, North Cowichan, Lake Cowichan:</b> Conduct Environmentally Sensitive Areas (ESA) mapping, update the ESA Strategy</li> <li>» <b>CVRD, North Cowichan:</b> Identify related policy recommendations and targets</li> <li>» <b>North Cowichan:</b> Progress the Invasive Species Program</li> </ul>
<b>Action 14.2:</b> Consider developing robust regional planning activities that align with community needs and take into account the environment's ability to provide adequate water, waste management, food systems, and transportation for our region.	High Priority	<ul style="list-style-type: none"> <li>» To be identified</li> </ul>
<b>Action 14.3:</b> Continue to proactively manage all local government-owned forested areas to increase forest resilience to wildfires, while considering biodiversity.	Medium Priority	<ul style="list-style-type: none"> <li>» <b>CVRD:</b> Develop forest management prescriptions, conduct vegetation management</li> <li>» <b>North Cowichan:</b> Undertake ongoing municipal forest reserve review and wildfire mitigation, update the Draft OCP to include forest management to increase resilience to wildfire while considering biodiversity</li> </ul>

## OBJECTIVE 15: Steward, protect, and restore Cowichan region watersheds in the face of climate change, continued population growth, and other development pressures including forestry and mining.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 15.1:</b> Review codes and drainage rules to evaluate how they protect and improve stream flows, seeps, springs, wetland function, water quality (including temperature), vegetation and habitat, and stormwater management during wetter winters.	Medium Priority	<ul style="list-style-type: none"> <li>» <b>CVRD:</b> To be identified in future years</li> <li>» <b>Duncan:</b> Restore riparian area to support drainage and protect habitat in McAdam and Rotary Parks</li> </ul>
<b>Action 15.2:</b> Ensure the Drinking Water and Watershed Protection (DWWP) planning process develops long-term Community Water Security Plans and updates Watershed Plans with climate projections to reduce future water use conflicts.	Medium Priority	<ul style="list-style-type: none"> <li>» <b>CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:</b> Partner through CVRD's Drinking Water &amp; Watershed Protection (DWWP) program to: <ol style="list-style-type: none"> <li>1. Implement a hydrometric monitoring network</li> <li>2. Integrate data captured by community water systems into the network</li> <li>3. Analyze data, characterize watersheds / aquifers</li> <li>4. Develop ground and surface water budgets</li> <li>5. Establish water use consumption based on watershed and aquifer water supply</li> <li>6. Continue to partner with others regarding Cowichan River water supply planning</li> <li>7. Replace Stocking Lake Dam (Ladysmith, CVRD)</li> </ol> </li> <li>» <b>Ladysmith:</b> Removing chicken ladders from Holland Creek and upgrading dams</li> </ul>



## ACTIONS

**Action 15.3:** Develop coordinated Watershed Management Plans to inform land use planning.

**Action 15.4:** Establish a water conservation communication plan which clarifies restriction stages and coordinates messaging for all community water systems.

## PRIORITY

Medium  
Priority

Medium  
Priority

## CURRENT ACTIVITIES 2024 TO 2026

» **CVRD, North Cowichan, Duncan, Lake Cowichan:** Partner in the development of a 10-year action plan for Board approval, develop Watershed Management Plan outlines

» **CVRD, North Cowichan, Duncan, Lake Cowichan, Ladysmith:** Collaborate with partners and utility operators in the region to update and communicate water restriction stages

## OBJECTIVE 16: Prepare for shifts in ranges of existing species and influxes of new invasive species.

### ACTIONS

**Action 16.1:** Review and update Invasive Species Strategies to include novel species and emerging species affecting the region as a result of climate change.

### PRIORITY

Low  
Priority

### CURRENT ACTIVITIES 2024 TO 2026

» **CVRD, North Cowichan:** Review and implement invasive plants management programs on an ongoing basis

## OBJECTIVE 17: Support education and outreach on watershed health, tree planting, and ecosystem management.

COMMUNITY & PARTNERSHIP LED

### ACTIONS

**Action 17.1:** Create awareness of watershed health and function via public education programs, such as school forums, information for farmers, and watershed tours.

**Action 17.2:** Work with community members and industries located on sensitive aquifers to educate and implement a code of shared responsibility to protect water quality.

**Action 17.3:** Support expansion of current and explore new voluntary programs promoting increased native, drought-tolerant vegetation and reduced hardscape on private property.

### PRIORITY



### CURRENT ACTIVITIES 2024 TO 2026

» To be identified by Cowichan Region Climate Adaptation Partners

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» To be identified by Cowichan Region Climate Adaptation Partners

## PRIORITIES LEGEND



High Priority  
(within the next 1-4 years)



Medium Priority  
(within the next 6 years)



Low Priority  
(within the next 10 years)



To be identified in  
future years



## CROSS-CUTTING ACTIONS

**Cross-cutting actions apply to all actions in the strategy.** These objectives and actions help our region collectively prepare for a resilient future. Climate risk management needs to be routinely integrated into nearly all aspects of work in our region, including setting policy, making budget decisions, updating zoning and other codes, investing in infrastructure, delivering health services, and fostering emergency preparedness.



### DID YOU KNOW YOU CAN HELP BUILD CAPACITY IN THE REGION?

Community support is vital for our region to successfully adapt to climate change. There are many opportunities for everyone to take action to support a bright future. Visit [cvrdnewnormalcowichan.ca](https://cvrdnewnormalcowichan.ca) to access tools for home and for business to help you adapt to climate change.

## OBJECTIVE 18: Research, monitor, and disseminate lessons learned on climate change projections, impacts, and adaptive actions.

ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 18.1:</b> Establish relationships with subject matter experts who conduct research on global climate change impacts, understand their effects on the region and identify communities most in need of intervention.	High Priority	» <b>CVRD:</b> Establish participation in relevant workshops hosted by senior level government, government agencies, and non-government organizations (e.g., Ministry of Environment, Pacific Climate Impacts Consortium)
<b>Action 18.2:</b> Communicate long-term climate change projections and related research to community stakeholders, partners, and the public.	High Priority	» <b>CVRD:</b> Communicate projections and impacts to community stakeholders, partners, and the public on an ongoing basis, develop and deliver internal staff training for climate impacts and adaptation planning
<b>Action 18.3:</b> Keep up to date with best practices for adaptation action, and work with local communities to inform equitable adaptation and risk mitigation planning.	High Priority	» <b>CVRD:</b> Encourage participation in local communities of practice which focus on climate adaptation, and return knowledge back to the organization


## OBJECTIVE 19: Mainstream climate change adaptation into regional policies, programming, actions, and disaster risk reduction strategies.


ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 19.1:</b> Conduct a review of the region's OCPs and other key service-level plans and policies (e.g., Emergency Management Plan, etc.) to identify linkages between climate change hazards, impacts, and strategy goals and integrate climate change considerations.	High Priority	» <b>CVRD:</b> Involve staff from across service areas in working groups to develop key service-level plans and policies, facilitate focused discussions on climate adaptation objectives at the beginning of each planning process » <b>North Cowichan:</b> Update the OCP and Climate Action & Energy Plan (CAEP) » <b>Duncan:</b> Update the OCP to include climate change considerations


## OBJECTIVE 20: Maximize collective impact against climate change through partnerships with local First Nations.


ACTIONS	PRIORITY	CURRENT ACTIVITIES 2024 TO 2026
<b>Action 20.1:</b> Continue to work with local First Nations on the development of coordinated and collaborative climate adaption initiatives and programs.	High Priority	» <b>CVRD, North Cowichan, Duncan:</b> For plans, strategies, and policies that involve climate change adaptation, engage local First Nations to identify opportunities for collaboration and establish partnerships

### PRIORITIES LEGEND

 High Priority  
(within the next 1-4 years)

 Medium Priority  
(within the next 6 years)

 Low Priority  
(within the next 10 years)

 To be identified in  
future years



# NEXT STEPS

## It's time for action.

The work to date on climate change adaptation gives us the information we need to understand the issues and impacts within our region outlining what it is we want to achieve. Now, it's time to focus on the actions we need to take.

The actions of Cowichan Adapts will be implemented through partnerships, with the CVRD helping to facilitate work with local municipalities, partners, and representatives from other organizations. An advisory group will act as a coordinating body between the partners to review implementation and identify activities and projects to be completed.

## Monitoring our progress.

We cannot achieve all our goals at once. Logical, coordinated actions will address areas requiring more urgent attention and using the knowledge we have will sustain our progress.

As we move forward, we'll want to keep tabs on how we're doing and celebrate successes along the way. Monitoring will allow us to take stock and shift directions so our efforts keep us on the path forward.

**Stay connected, monitor progress, and find tools about how you can adapt using the Cowichan Adapts website link below.**

[CVRDNEWNORMALCOWICHAN.CA](http://CVRDNEWNORMALCOWICHAN.CA)

