HEAT AND DROUGHT

We have a plan to adapt.

Together, we can beat the heat of climate change. Read this brochure to learn about heat and drought risk in our region, how it could affect you, and information to help you be prepared. Stay up to date:

CVRDNEWNORMALCOWICHAN.CA

Seasonal heat and drought impacts Cowichan region.

The Cowichan region is located within Canada's only Maritime - Mediterranean climate zone. This means our region enjoys mild winters and warm summers. However, as global temperatures rise, so do our local summertime temperatures. With rising temperatures, seasonal drought, water shortages, heat domes, and increased wildfire potential, our agricultural, economic, environmental, and human health systems can be at risk.

How can we prepare for the new normal?

Be prepared and understand your risks.

Cowichan Region Climate Adaptation Partners have been working together to study and prepare for the impacts of climate change. Together, we are taking steps to implement risk management at the community level through a Board-approved Climate Adaptation Strategy.

Residents, businesses, and property owners also have responsibility to prepare. Knowing the risks helps people mitigate potential impacts on private lands, increases personal safety, and prepares us to respond quickly in the event of an emergency.

CVRD COWICHAN ADAPTS

ABOUT HEAT & DROUGHT

Drought is a shortage of water over an extended period of time. It is caused by long spans of hot and dry weather coupled with insufficient precipitation. It can occur in short periods or span many years. Although drought is a normal part of our climatic cycle, we are experiencing more intense summer droughts in the Cowichan region. Projections indicate warmer temperatures, longer summer dry spells, and decreased in agriculture will increase our drought risk. What impacts could we see?

- Increased wildfire risk due to forest vegetation becoming very dry
- Less water available for agricultural crops and livestock, compromising production and animal health and impacting food costs
- Economic impacts for businesses, industry, and tourism due to heat, reduced water supply, and wildfire risk
- Human health hazards from extreme heat and poor air quality due to wildfire smoke
- Increased energy demand and fossil fuel consumption for cooling buildings
- Impacts to water quantity, including drinking water shortages, and to quality such as algae blooms and increased stream contaminants
- Reduced stream flows impacting fish, wildlife, vegetation, and marine habitats
- Heat stress pressures on transportation, water, and other infrastructure systems leading to increasing operations and replacement costs
- Impacts to systems that require water to operate such as hydro-electrical generation for cooling, ultimately increasing services costs

HEAT AS A HUMAN HEALTH HAZARD

By 2050, we can expect the average daytime summer temperatures to be 3.2°C warmer with a 17% decline in precipitation. Urban environments with little natural shade or cooling can see heat island effects that push temperatures even higher. As witnessed in the 2021 heat dome, extreme heat can have catastrophic impacts. Vulnerable people such as seniors, pregnant women, low income residents, young children, and those with health conditions are most at risk. Heat related illness can be mild to severe so it is important to monitor symptoms such as flushed skin or confusion.

HOW DRY IS IT? MANAGING RISK & RESPONSE

Our region uses British Columbia's **Drought Classification** to understand severity and appropriate level of response to drought conditions.

Level	Impacts	Response	LINK TO: CVRD Water Restrictions
0 Average or wetter than average	Sufficient water to meet socio-economic and ecosystem needs	Preparedness and proactive action in advance of drought	No Restrictions
I Drier conditions	Adverse impacts to systems and ecosystem are **rare**	Stewardship, conservation, planning, and communication	Stage I Restrictions
2 Very dry conditions	Adverse impacts to systems and ecosystem are **unlikely**	Conservation and local water restrictions where appropriate	Stage I Restrictions
3 Severely dry conditions	Adverse impacts to systems and ecosystem are **possible**	Conservation and local water restrictions likely, regulatory action investigated	Stage 2 Restrictions
4 Extremely dry conditions	Adverse impacts to systems and ecosystem are **likely**	Conservation and local water restrictions, regulatory action possible	Stage 3 Restrictions
5 Exceptionally dry conditions	Adverse impacts to systems and ecosystem are **certain**	Conservation and local water restrictions, regulatory action likely Possible emergency response	Stage 4 Restrictions

ADAPTATION TO MANAGE RISK

We can adapt to the risk of heat and drought in our region by taking a proactive approach to prepare our social, economic, and environmental systems for the impacts of a changing climate. Here's how.

Understand climate change impacts in our region through projections and risk analysis

Support a sustainable water supply by monitoring and carefully managing watersheds, water resource systems, and land use

Help business and industry, including the forestry and agricultural sectors, **manage resources to limit environmental impacts**

Protect our water resources through stewardship, conservation, and design that protect water resources for when we need them most

Plant trees to green our communities, absorb heat, provide shade, improve air quality, and mitigate greenhouse gas emissions

Educate and support community members to manage risk at the individual level

TOOLKIT

Use these tools to help understand heat and drought risks in your community, how you can prepare, and what to do if drought occurs.

Be Ready for Heat and Drought.

BE WATER WISE

- Follow water restrictions and lawn care tips
- Identify and fix household leaks
- Use a water calculator to review your water use
- Limit showers to five minutes
- Turn off water when washing dishes or brushing teeth
- Run household appliances less and consider upgrading to high-efficiency appliances
- Replace old toilets with a CVRD rebate program
- Plant drought tolerant plants in your garden
- Learn about rain cisterns

REDUCE AGRICULTURAL WATER USE

- Visit BC's Drought in Agriculture resource page
- Check the Quick Guide to Drought Resources
- Get drought management tips
- Understand efficient water use during droughts
- Understand Provincial insurance and income protection programs

RESOURCES

- Visit the BC's Drought Information portal
- See real-time information on regional water use
- Get current CVRD water use restrictions

MANAGE WILDFIRE RISK

- Learn about being FireSmart
- Conduct a FireSmart assessment of your home
- Take steps to remove or manage potential fuel or sources of ignition around your home like vegetation or wood shingles and siding
- Remove vegetation that overhangs your roof
- Make sure your family knows the location of the gas, electric, and water main shut-offs
- Talk to your insurance about wildfire protection

PREPARE FOR HEAT WAVES

- Understand the dangers of heat and your risk
- Install air conditioning, especially if you are vulnerable to heat impacts
- Stay cool, hydrated, and out of direct sunlight
- Watch for signs of heat stroke (confusion and dizziness) and call 911 if in immediate danger
- Visit local cooling centers if you cannot cool in your home
- Regularly check on loved ones, especially those who are vulnerable or who live alone
- Stay tuned to local media for updates
- Read Heat Preparedness from Island Health
- Stay Healthy in the Heat (Government of Canada)