



FLOODING & SEA LEVEL RISE

We have a plan to adapt.

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

CVRDNEWNORMALCOWICHAN.CA



Flood risk in the Cowichan region is increasing.

The Cowichan region is known for its spectacular rivers and coastal areas. Yet these areas are also some of the most vulnerable to flooding. There are many places in our region where human activity — including homes, farms, businesses, community spaces, and roads — takes place in areas that are at risk of flooding. Climate change is bringing wetter winters and more extreme storms to our region, which could make future flooding even more intense.

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.



COWICHAN
ADAPTS



ABOUT FLOODING

Flooding happens for many reasons, but most flooding occurs following a period of heavy rainfall like an 'atmospheric river' (a long, narrow 'river in the sky' carrying water vapour) that outpaces the ability of the land to drain or absorb the water. In some areas, flooding is natural and important to maintain ecological function. Flooding can occur any place where water flows, including:



Lake Flooding

Heavy rainfalls can raise water levels and flood shorelines of lakes quickly and unexpectedly. Lakefront property owners in Lake Cowichan and Shawnigan Lake can minimize flood risk by storing belongings in waterproof containers and understanding their risk by checking lake water levels and weather forecasts.



River Flooding

During rain events, water flows rapidly from higher ground into rivers and streams. Heavy flows can lead to water overtopping stream banks into surrounding areas. Low-lying floodplain areas are especially at risk of regular flooding with heavier rainfall. Developing an emergency plan can help homes, businesses, and commuters on roads.



Urban Flooding

In urban areas with paved surfaces, stormwater is typically collected in a built system made up of components like catch basins, pipes, ditches, and pump stations. These systems are designed for certain flows and can become overwhelmed when rainfall is heavier. Property owners can construct rain gardens to better manage run-off.



Coastal Flooding

Ocean levels are rising, making our coastal shorelines more susceptible to flooding. A combination of sea level rise, storm surge, and tidal activity could result in both temporary and permanent flooding of some coastal areas. Shoreline residents can flood-proof their home and consider purchasing flood insurance.

SEA LEVEL RISE



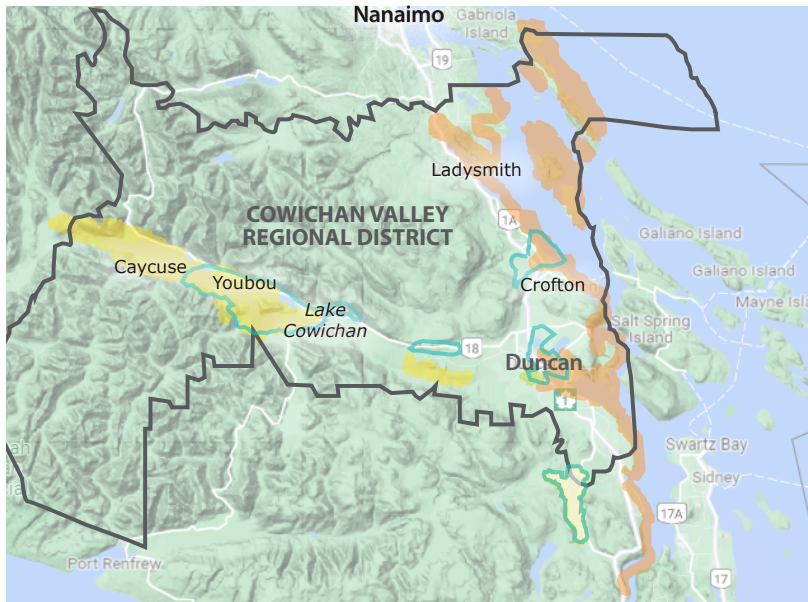
The Cowichan region's coastal shorelines are some of the most sought after areas for living and enjoying. They are also vulnerable to sea level rise impacts. While there is some uncertainty about how quickly ocean levels will rise, impacts are already being seen.

The Province of British Columbia provides guidance for communities to plan for one metre of sea level rise by the year 2100 and two metres by 2200. Oceanside infrastructure and buildings will need to adapt so they remain protected from flooding as the ocean rises.

The CVRD has undertaken sea level rise risk assessments to understand the extent of impacts.



MANAGING RISK: FLOOD MAPPING & RISK ASSESSMENT



Legend:
Cowichan Valley Regional District (black outline)
Sea Level Rise Assessments (orange)
Floodplain Risk Assessments (yellow)
Floodplain Mapping (green)

Flood mapping and risk assessments help us identify areas most at risk from flooding and erosion. The coloured areas show where flood-related risk assessments and flood mapping have been completed so far. The CVRD and partners, including member municipalities and Cowichan Tribes, continue to gather up-to-date information to help communities in our region prepare for flood risk.

Visit cvrldnewnormalcowichan.ca to view current maps and reports.

ADAPTATION TO MANAGE RISK

We can adapt to the risk of flooding 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.



Continue to **identify and share information** about flood hazards through mapping and risk assessment



Consider strategic physical changes to improve flood management such as sediment and blockage removal, storage areas, erosion protection, protective barriers, etc.



Build new infrastructure and buildings to reduce flood risk using flood construction levels (FCL) and flood protection practices



Continue to **update emergency preparedness and flood warning systems** to help communities respond quickly to major events



Improve drainage systems and reduce impervious surfaces in urban areas



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



TOOLKIT

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

Be Ready for Flooding and Sea Level Rise.

BEFORE A FLOOD

- ▶ Determine an emergency meeting place should a flood force your family to evacuate
- ▶ Research flood insurance coverage
- ▶ Make a [Grab-and-Go Bag](#) with key emergency supplies in case you need to leave right away
- ▶ Store valuables that could be damaged in a flood in water-tight containers or in higher places
- ▶ Consider flood-proofing your home
- ▶ If you own a business, develop a [small business emergency plan](#) and read the [PreparedBC Guide for Small Businesses](#)

DURING A FLOOD

- ▶ Check [BC Flood Warnings & Advisories](#)
- ▶ Stay tuned to local media for the latest information
- ▶ Evacuate if directed, but always avoid walking or driving through flood waters

AFTER A FLOOD

- ▶ Wait for the okay from authorities before going to flooded areas or returning home
- ▶ Use caution around underground or downed power lines that may have been damaged and could be an electrical hazard
- ▶ Learn about [flood recovery](#) including safe clean up, insurance claims, and [mental health support](#)
- ▶ If you own a business, review BC's [Business Continuity Plan](#)

RESOURCES

- ▶ Know your flood risk in the [Cowichan region](#)
- ▶ Visit the [BC Flood Preparedness Website](#)
- ▶ [Learn what to do](#) at different stages of a flood
- ▶ Find tools at [Small Business BC Flood Resources](#)
- ▶ Understand [flood recovery for agriculture](#)
- ▶ If you are a tourism operator read the [PreparedBC Guide for Tourism Operators](#)



Stay connected, monitor progress, and find tools about how you can adapt
CVRDNEWNORMALCOWICHAN.CA



**COWICHAN
ADAPTS**
TO THE NEW NORMAL