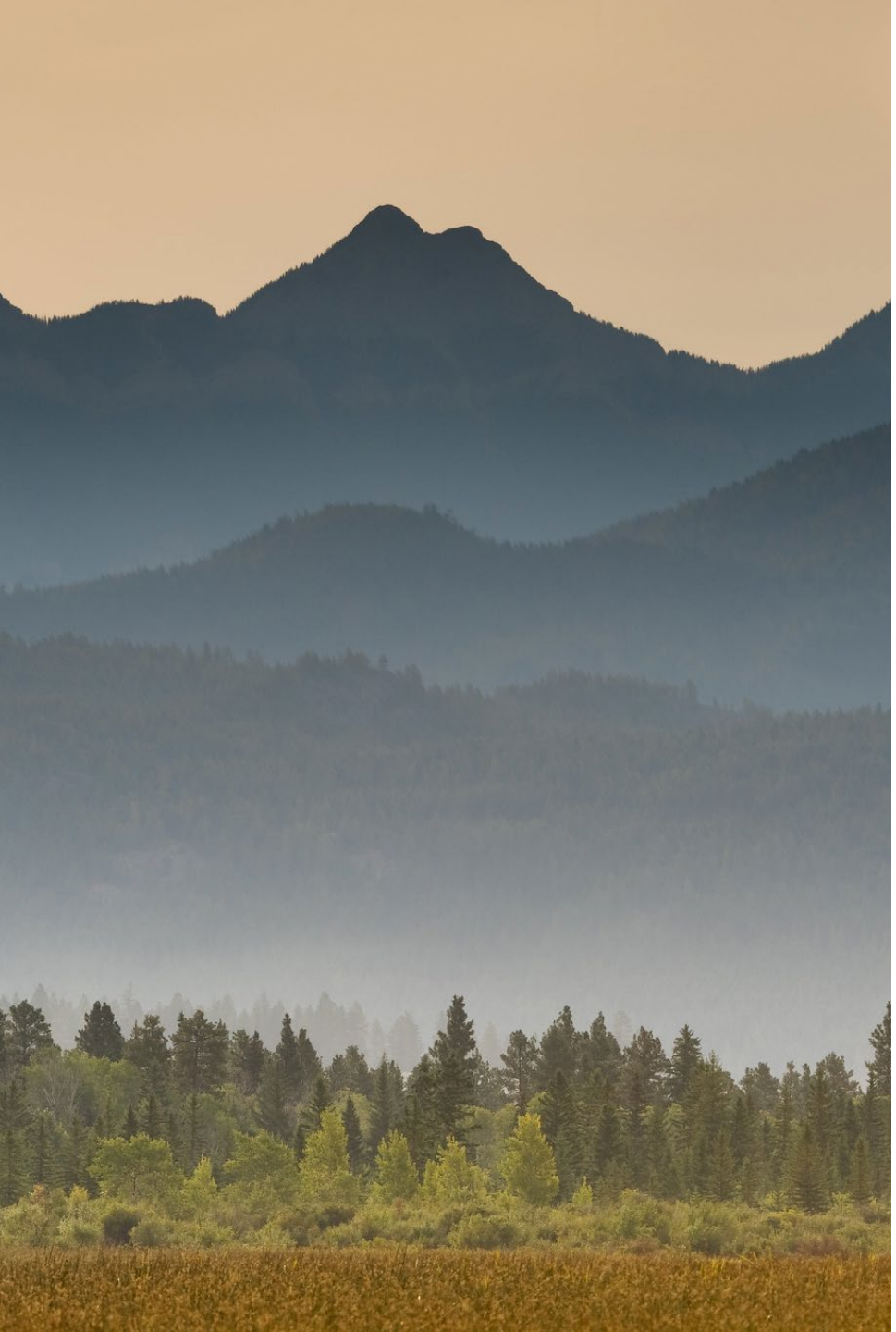
BRITISH COLUMBIA | Ministry of Emergency Management and Climate Readiness

Disaster and Climate Risk and Resilience Assessment

Ministry of Emergency Management and Climate Readiness

Territorial acknowledgement

We are grateful for the opportunity to live, work and learn on this land

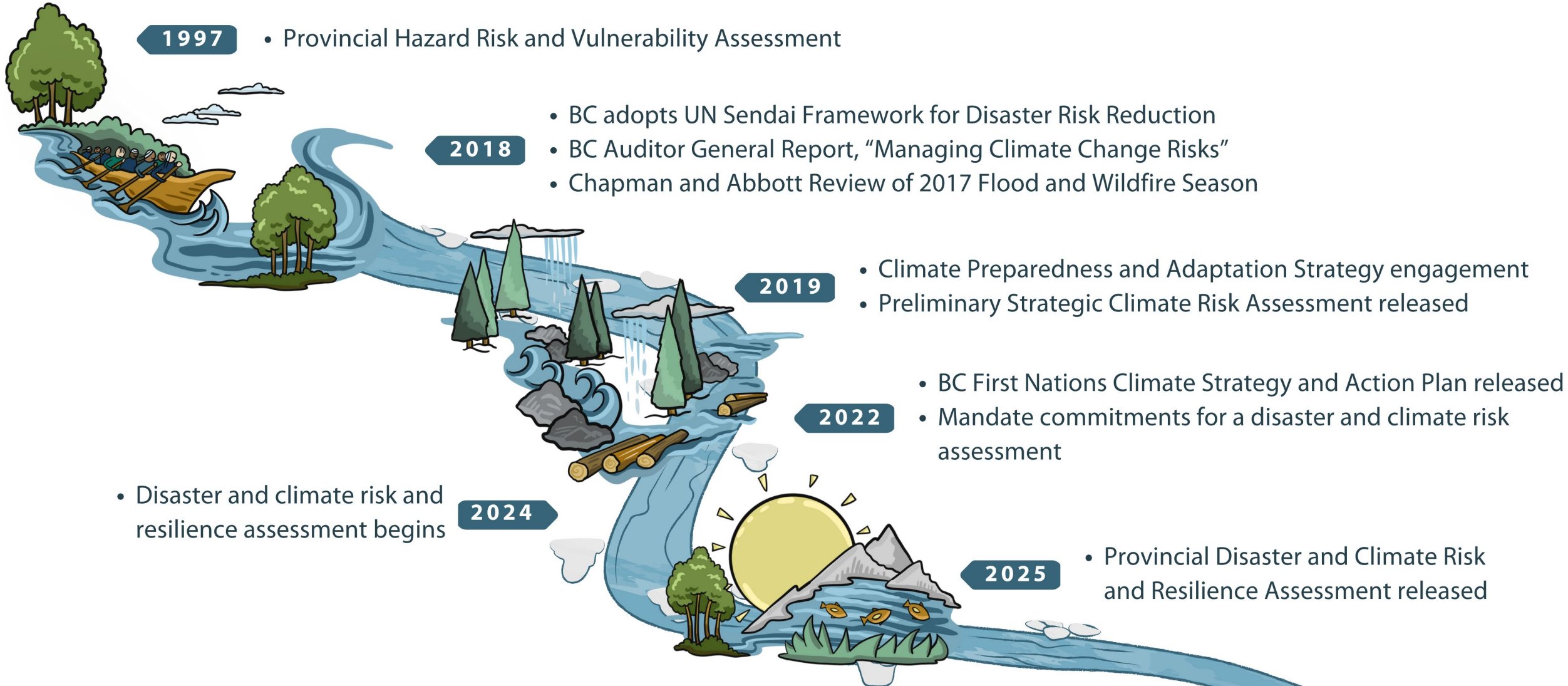


Agenda

1. Overview of Disaster and Climate Risk and Resilience Assessment
2. Overview of Resources and Tools
3. Next Steps

Timeline

This work builds on years of engagement, collaboration, and technical work



1997

- Provincial Hazard Risk and Vulnerability Assessment

2018

- BC adopts UN Sendai Framework for Disaster Risk Reduction
- BC Auditor General Report, “Managing Climate Change Risks”
- Chapman and Abbott Review of 2017 Flood and Wildfire Season

2019

- Climate Preparedness and Adaptation Strategy engagement
- Preliminary Strategic Climate Risk Assessment released

2022

- BC First Nations Climate Strategy and Action Plan released
- Mandate commitments for a disaster and climate risk assessment

2024

- Disaster and climate risk and resilience assessment begins

2025

- Provincial Disaster and Climate Risk and Resilience Assessment released

Context

Mandate letter:

- Develop hazard risk assessments
- Provide tools and information to inform community resilience planning and preparedness for

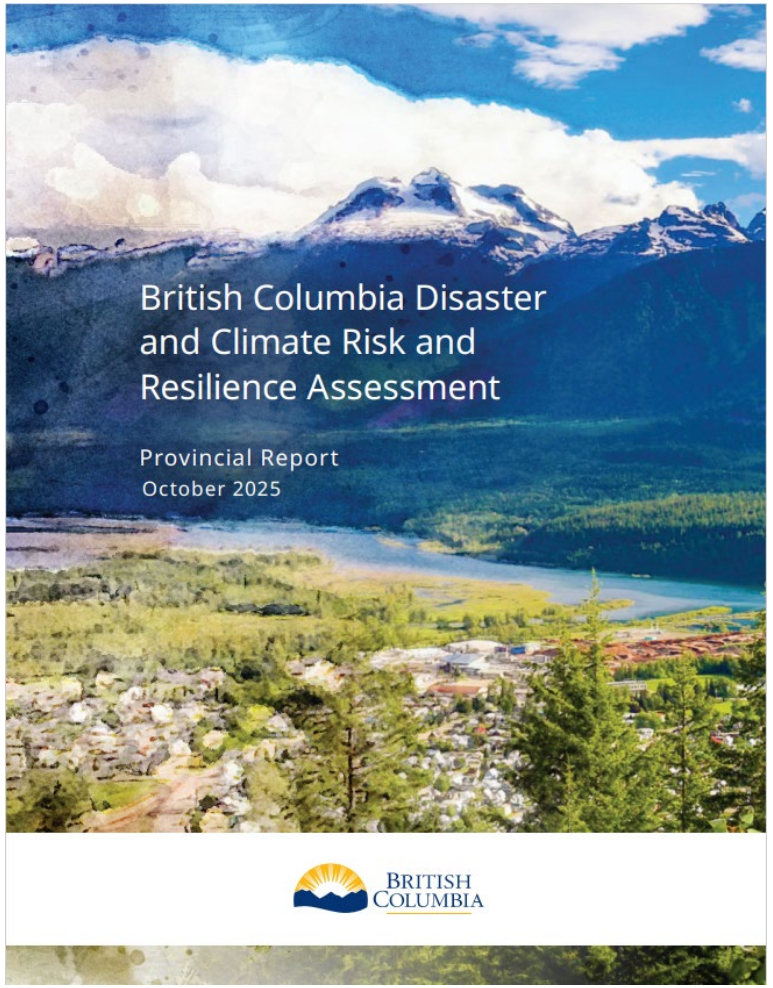
Guiding pillars:

- Collaborate with First Nations
- Take an equity-informed, strengths-based approach
- Uphold best available knowledge
- Support communities

Provincial DCRRA

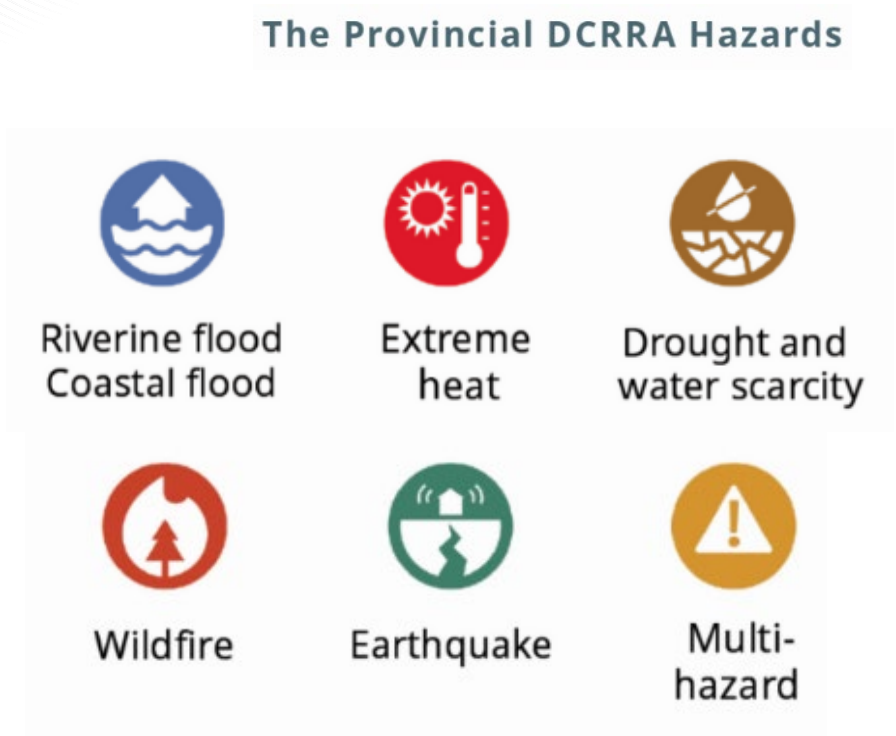
Scale & Scope

- **Provincial scale** understanding of risk
- Provides **baseline** information; lays **foundation** for future work
- Based on **existing information, expert judgement, partner input, scenario analysis**
- **Diverse sources** of knowledge

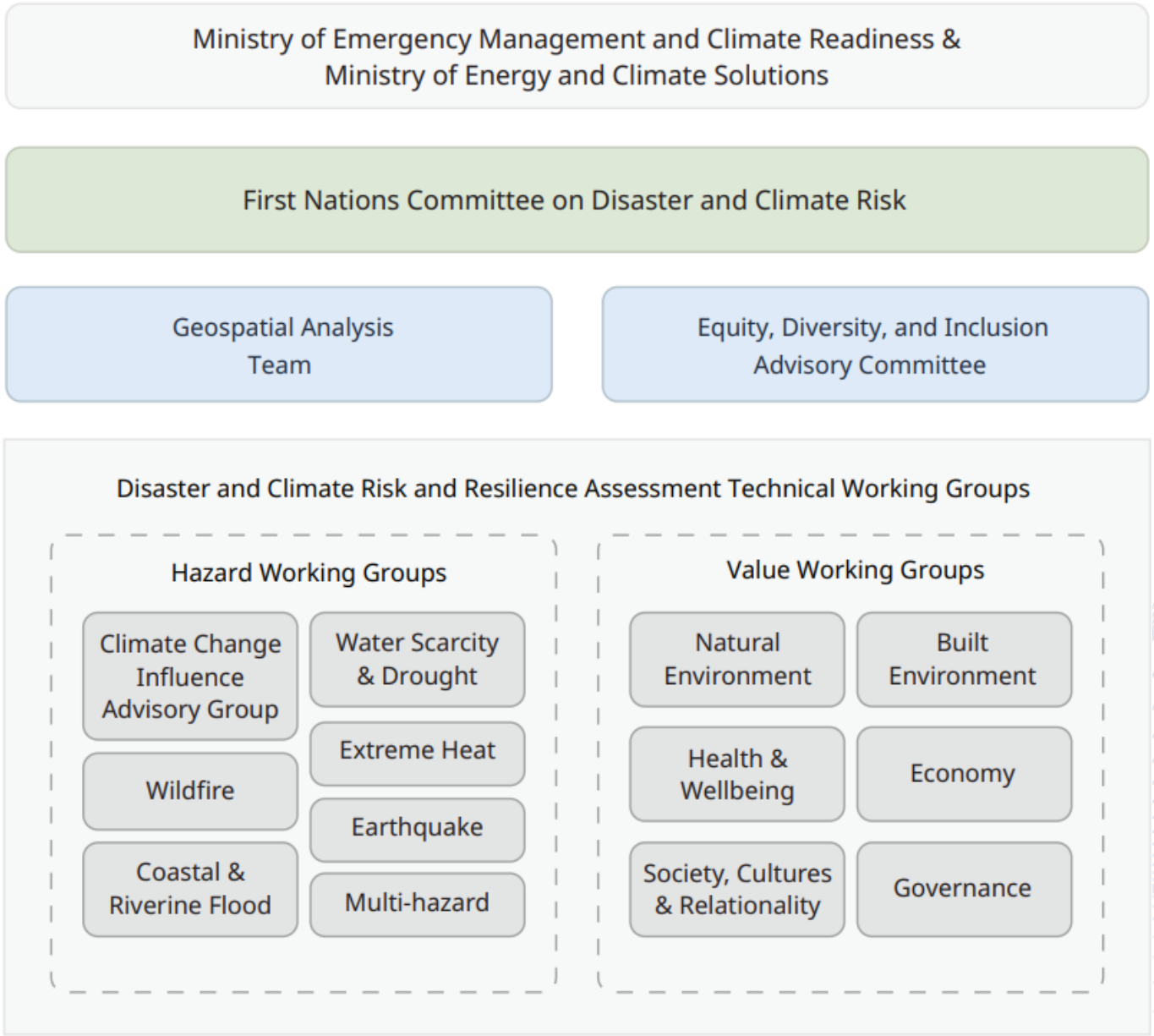


DCRRA Hazards & Values

The Provincial DCRRA is guided by the question: how do hazards impact what we value?



Developing the DCRRA



Developing the DCRRA

Disaster and Climate Risk and Resilience Assessment
Values-based assessment for selected hazards

Provincial Hazards Overview

Insights on riverine and coastal flood, earthquake, wildfire, extreme heat, water scarcity, and multi-hazards

Provincial Values Overview

Insights on the built environment, natural environment, society, cultures & relationality, health & wellbeing, economy, and governance

Extreme Event Scenarios

Exploring extreme event scenarios to communicate a story about hazards and their impacts

Climate Change Influence

Integrating climate change's influence on risk

Geospatial Analysis

Quantitative geospatial analysis shared on an open data platform with tools for analysis and interaction

EDI Considerations

Identifying the disproportionate impacts of hazards on certain groups

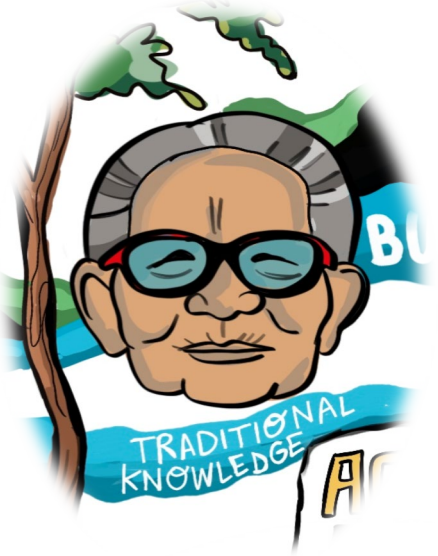
Designed in collaboration with First Nations

Engagement through design, assessment and implementation phases

DCRRA Key Learnings

Key Learnings

- Risk and resilience assessments are values-based exercises
  - Consider how to **centre values** and **represent different worldviews** – move beyond built environment and infrastructure
- Local and Indigenous Knowledge and science are key to understanding risk and building resilience
  - Including **multiple perspectives** and **diverse knowledge** in assessments improves understanding
  - **Relationship-building** is integral

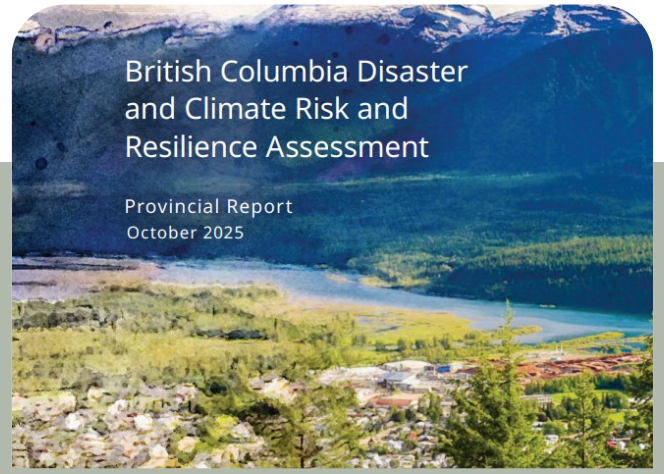


Key Learnings

- Systemic risk assessments add complexity
  - How to navigate that while meeting people where they are at will depend on the **desired outcome** and **context** of a given assessment
- An iterative approach makes space for on-going learning
  - We are all learning – **adjust along the way** as needed
- Build on existing knowledge, relationships, and processes
  - There is often a **wealth of existing knowledge** already out there **and processes** underway.
  - **Gathering and understanding the existing state** is essential, especially in resource-constrained environments

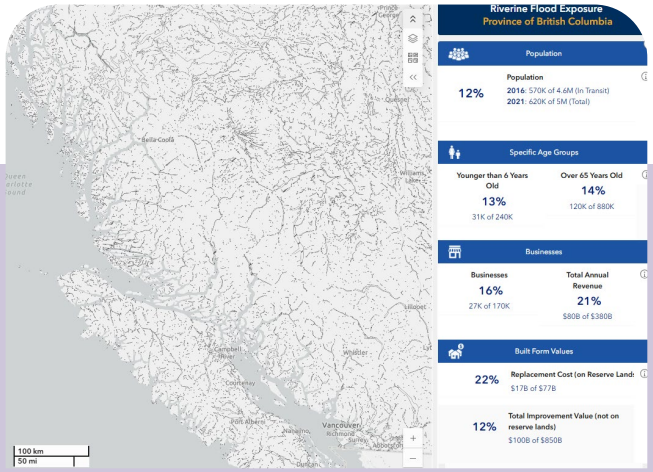
DCRRA Products

DCRRA Technical Resources



Technical Report

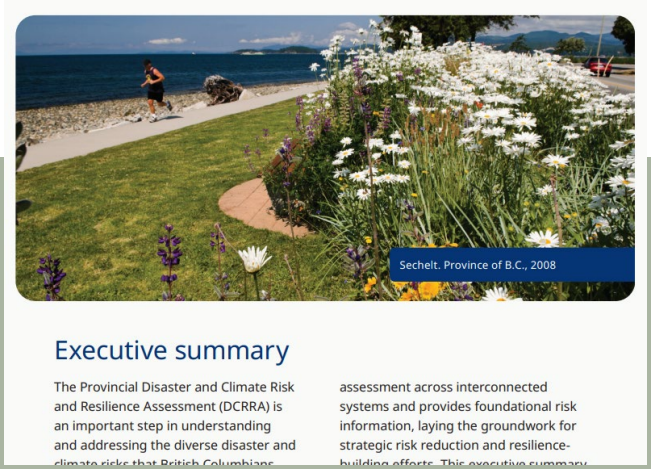
Process and methodology; full results by hazard and value; disproportionate impacts; extreme event scenarios by hazard; case studies



Hazard Insights Tool

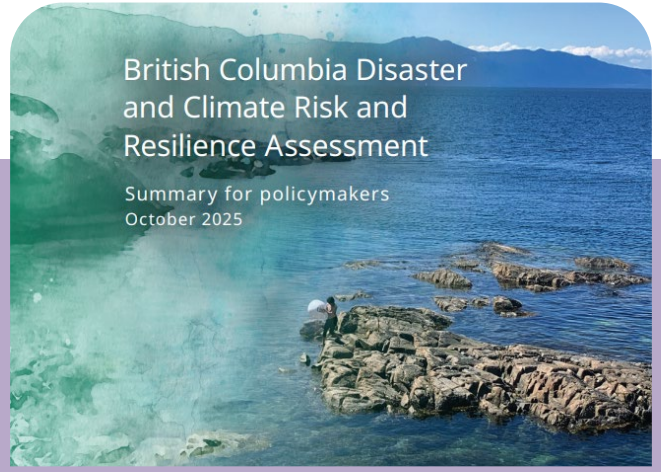
Provincial-scale layer and hazard-exposure analysis for 6 hazards; downloadable data and scripts

DCRRA Summary Documents



Executive Summary

Short overview; summary tables



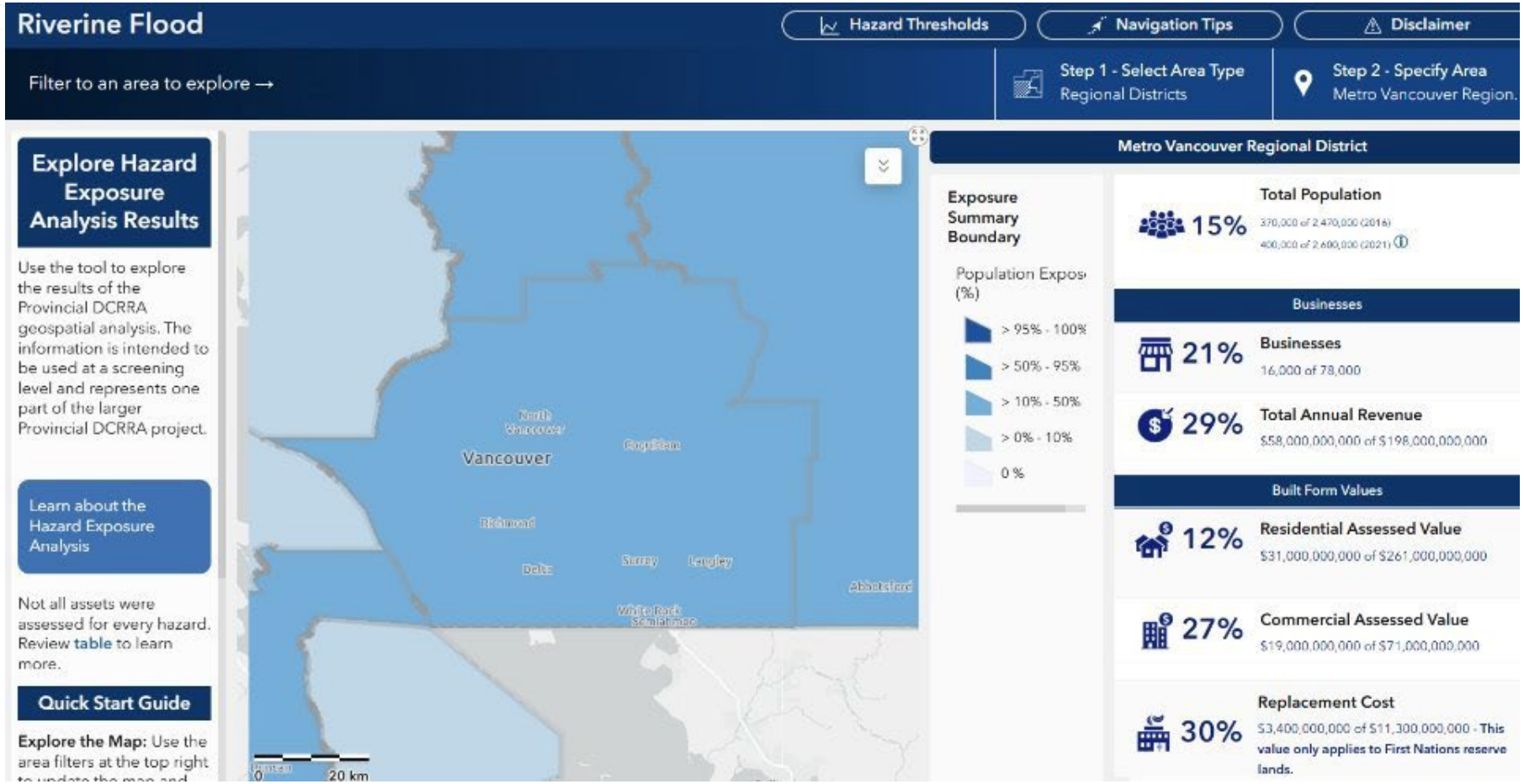
Summary for Policymakers

Summary appropriate for practitioners; decision makers

Story map

Key findings appropriate for the public

Demo: Hazards Insights Tool



Looking Ahead

Using the DCRRA

For practitioners and beyond

- Methodology
  - Value areas & value-based approach
  - Holistic assessment
  - Scenario-based analysis
  - Geospatial hazard and exposure analysis
  - Global Warming Levels for climate considerations
- Concepts
  - Key definitions & guiding concepts
- Data, science, and knowledge
  - Hazard Insights Tool
  - First Nations definitions & understandings
  - Foundational hazard and value info
  - Disproportionate impacts by hazard

DCRRA & EDMA

Mapping to EDMA risk assessment requirements

- CONTENT - Risk assessments must identify all reasonably foreseeable hazards and assess:
  - Extent of the risk (Ch 2, 3)
  - and the potential consequences for persons or property, or for objects or sites of heritage value—giving special consideration to: (Ch 2, 3, 4, 5)
    - Individuals who may experience intersectional disadvantage; and (Ch 4)
    - Vulnerable individuals, animals, places, or things (Ch 4)
- METHOD - Risk assessments must be based on:
  - Studies and surveys (Background lit review; recommendations from experts; geospatial work)
  - Available Indigenous & local knowledge (Expert knowledge; FNC)
  - Climate change considerations (PCIC climate experts)
  - Results of consultation with local authorities and Indigenous people (Engagement; FNC)

Risk assessment linkages

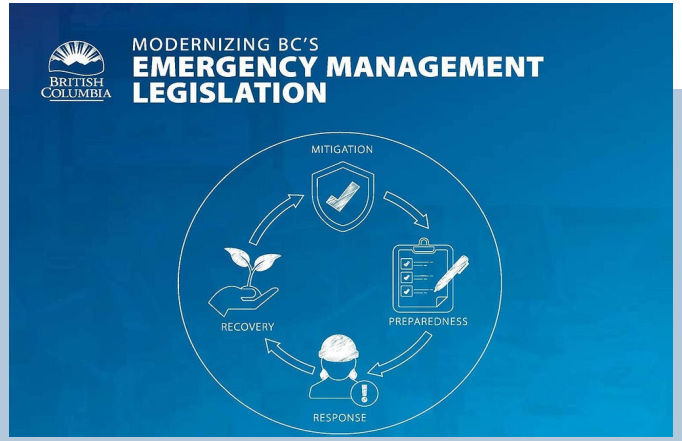
Related resource, projects, and work

Climate Ready BC

One-stop-shop for disaster risk reduction and climate adaptation resources

Funding Programs

Risk assessment funding available through provincial programs



EDMA Regulations

Regulations are under development, including risk assessment requirements

ClimateReadyBC

One-stop-shop for disaster risk reduction and climate adaptation resources

- Developed for practitioners
- Information and resources on hazards, data, tools, funding and resources
- URL: https://climatereadybc.gov.bc.ca/
- Email: ClimateReadyBC.gov.bc.ca

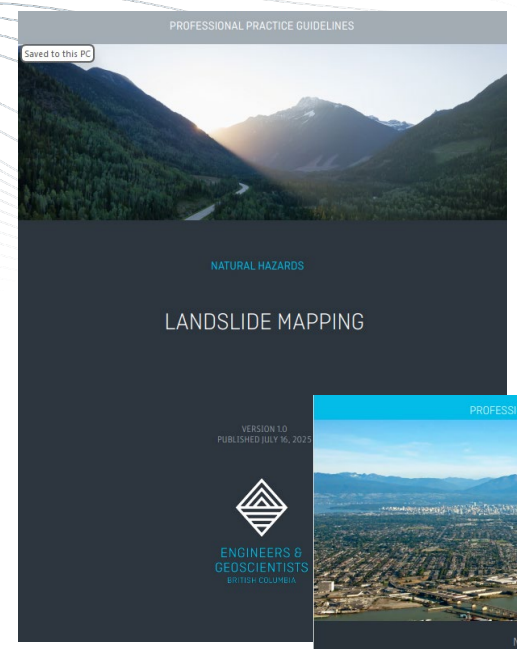
Demo: ClimateReadyBC

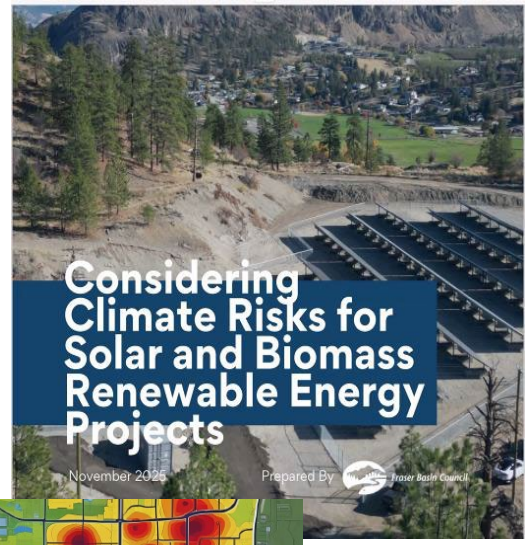
https://climatereadybc.gov.bc.ca/

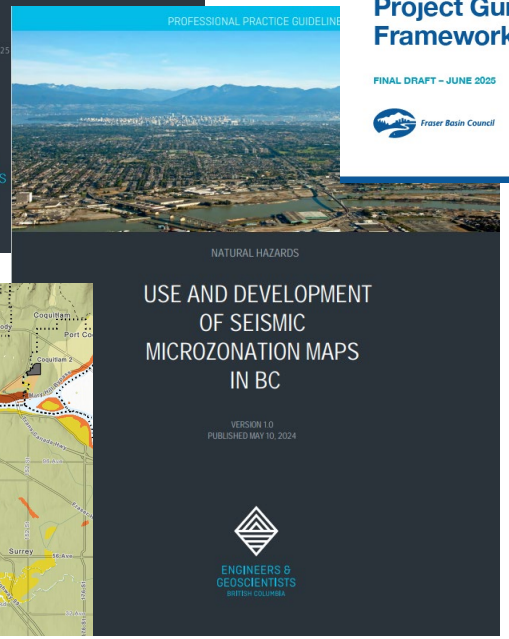
British Columbia is on the front lines of climate change in Canada.

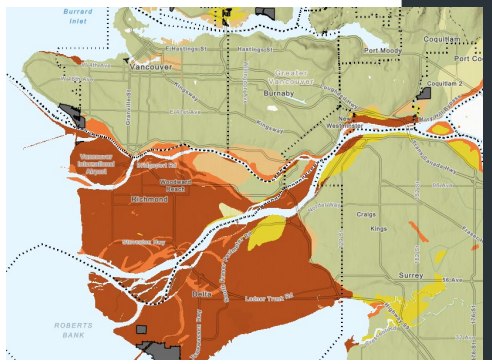
The challenges that B.C. faces are growing. Climate change is already affecting our communities, economy, infrastructure, and ecosystems.

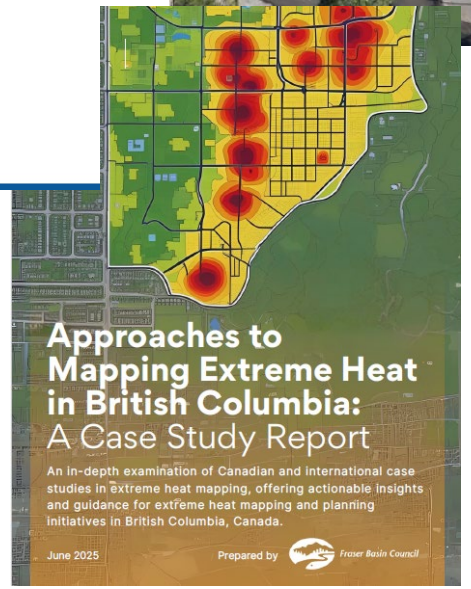
Related initiatives











sparc bc

people. planning. positive change.

… and more.

Demo: Community Climate Funding Guide

https://communityclimatefunding.gov.bc.ca/

Next Steps

- Enhancements to ClimateReadyBC of existing resources
- Ministry-led risk assessments (e.g., tsunami, volcano, extreme weather)
- Addressing regional-scale needs (e.g. tools, data, partnerships, etc.)
- Guidance and tools for completing risk assessments requirements
    - Content (consequences; considering intersectional disadvantage)
    - Method (data sources; upholding Indigenous & local knowledge; climate change considerations)

Thank you!

For more information, please contact:

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