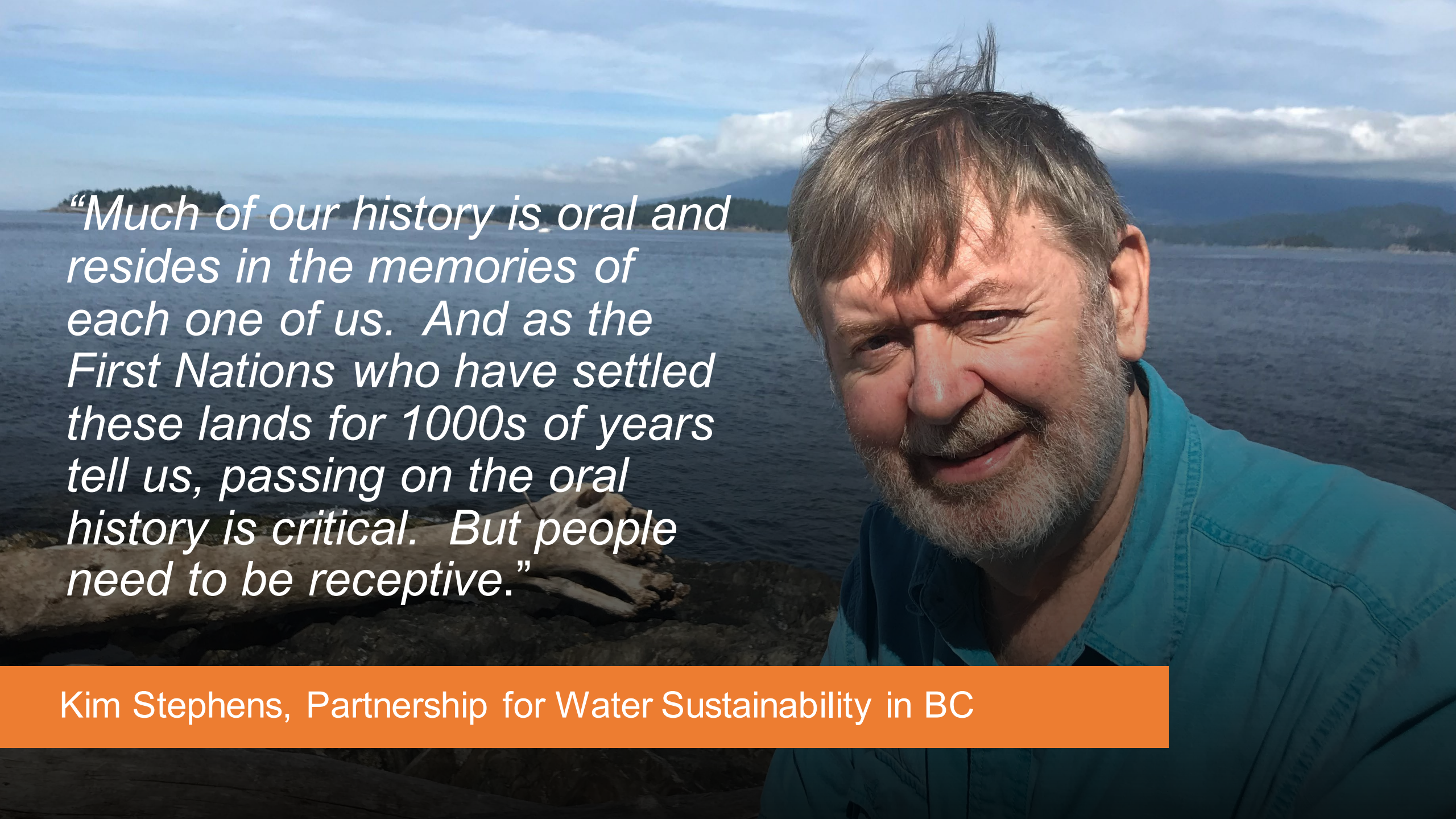


Regional Climate Change Adaptation and Risk Management Strategy

A man with a grey beard and a teal shirt is looking towards the camera. He is outdoors, with a large body of water and mountains in the background under a blue sky with some clouds. The text is overlaid on the left side of the image.

“Much of our history is oral and resides in the memories of each one of us. And as the First Nations who have settled these lands for 1000s of years tell us, passing on the oral history is critical. But people need to be receptive.”

Kim Stephens, Partnership for Water Sustainability in BC

A satellite-style map of North America, showing the United States and Mexico. The map is overlaid with a semi-transparent white text box on the left side. The text box contains a title and a bulleted list of climate events and actions. The map shows geographical features like the Rocky Mountains and the Gulf of Mexico.

Our recent climate history

- **1972 – Ice storms across**
- **1987 – BC’s first wakeup call for drought**
- **2003 – a “teachable year”**
 - a Roundtable for stewarding water resources in the Cowichan watershed was formed
- **2015 – Our new climate reality**
 - We begin developing our Regional Adaptation Strategy
- **2021 – The era of extremes is upon us**
 - We have the opportunity to begin formal implementation of our Regional Climate Change Adaptation Strategy

Background

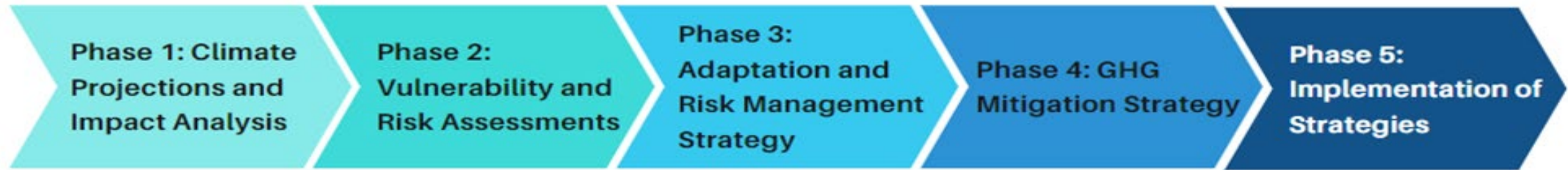
- In the 2014 to 2018 Strategic Plan, the Board prioritized the establishment of a Climate Change Adaptation Strategy.
- The Board adopted the Strategy in February 2021 and directed the development of the implementation framework.
- As components of the strategy have been completed, they have been brought to the Board and Councils to provide a progress update.
- The update today is to share the Strategy framework and the next steps for completion this year.

Relationship between Local Government Strategic Planning and the Adaptation Strategy



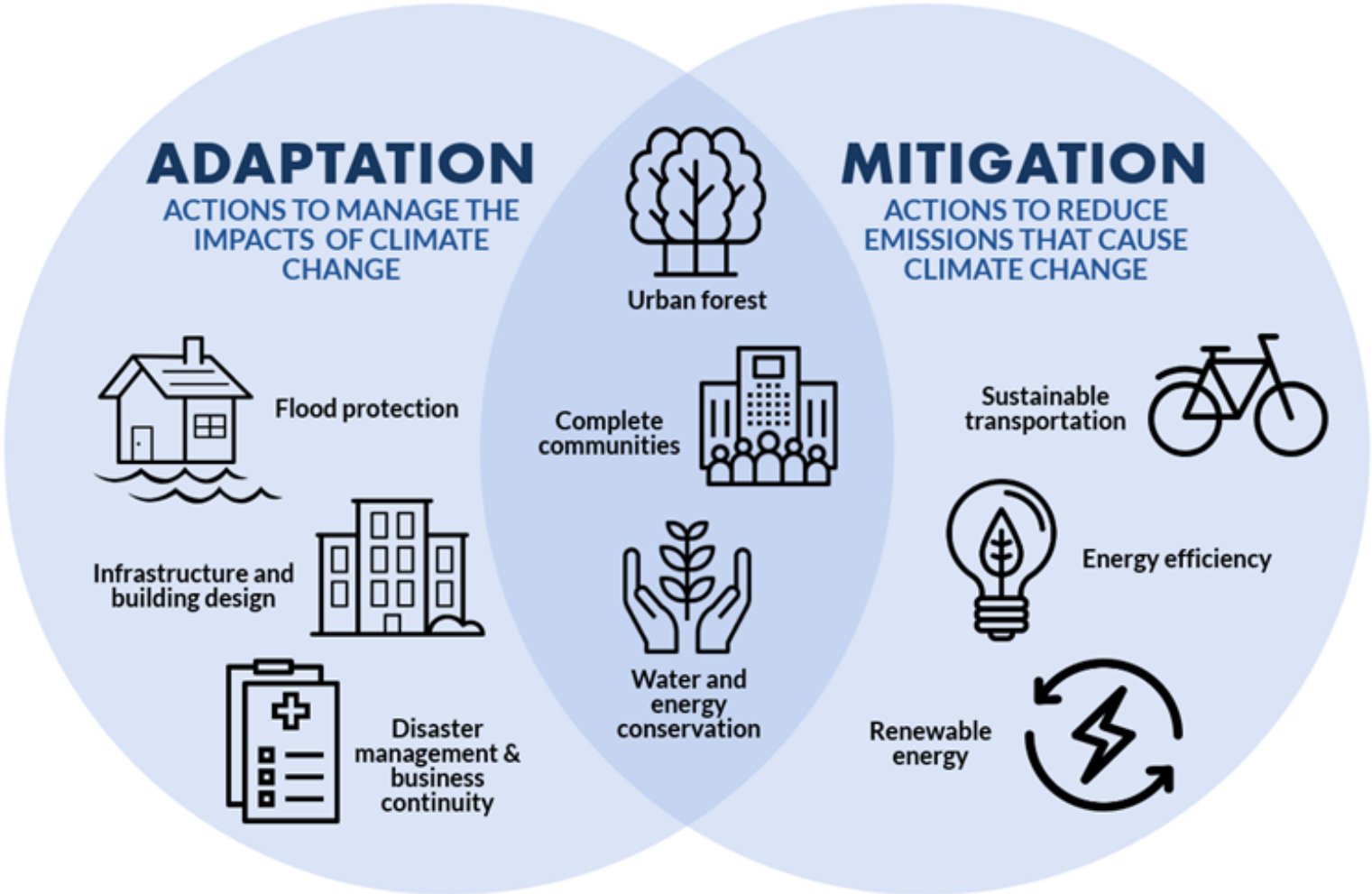
New Normal Cowichan

A multi-phased program to take action on climate adaptation

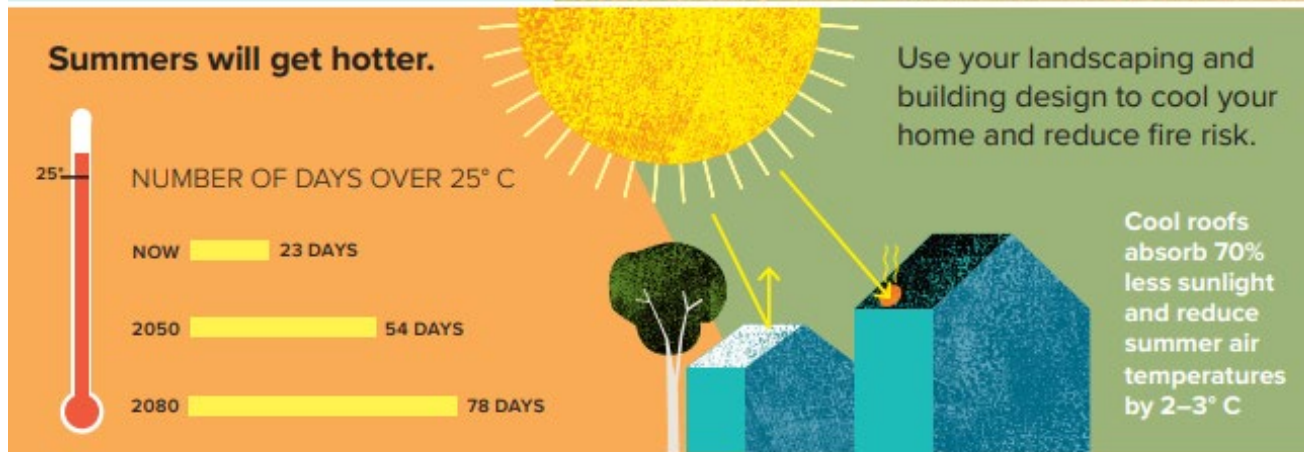


- 2014 – 2017, Developed Regional **Climate Change Projections**
- 16 Key Recommendations **Approved** : eg
 1. Use projections in all master planning processes.
 2. Incorporate projections into all engineering and water security planning.
 3. Map areas affected by hazards (flooding, erosion, landslides)
- 2016 to ongoing, **Natural Hazard Assessments** for coastal and river flooding, landslides and wildfire – 2018 to 2021
- Natural Hazards Risk Policy. **Approved**
- 2019 – 2021, Climate Change Adaptation and Risk Management **Strategy** – 2021 **Approved**
- Completing a Regional Energy Strategy to identify opportunities for developing locally-sourced renewable energy. **Approved**
- Developing a strategic Energy Management Plan for CVRD building, community centres and assets. **Approved**
- Approval of the **Implementation Strategy** - 2022
- **Implementation** of the Climate Change and Risk Management Strategy – 2022. **In progress**

Adaptation vs Mitigation



Phase 1 Climate Projections



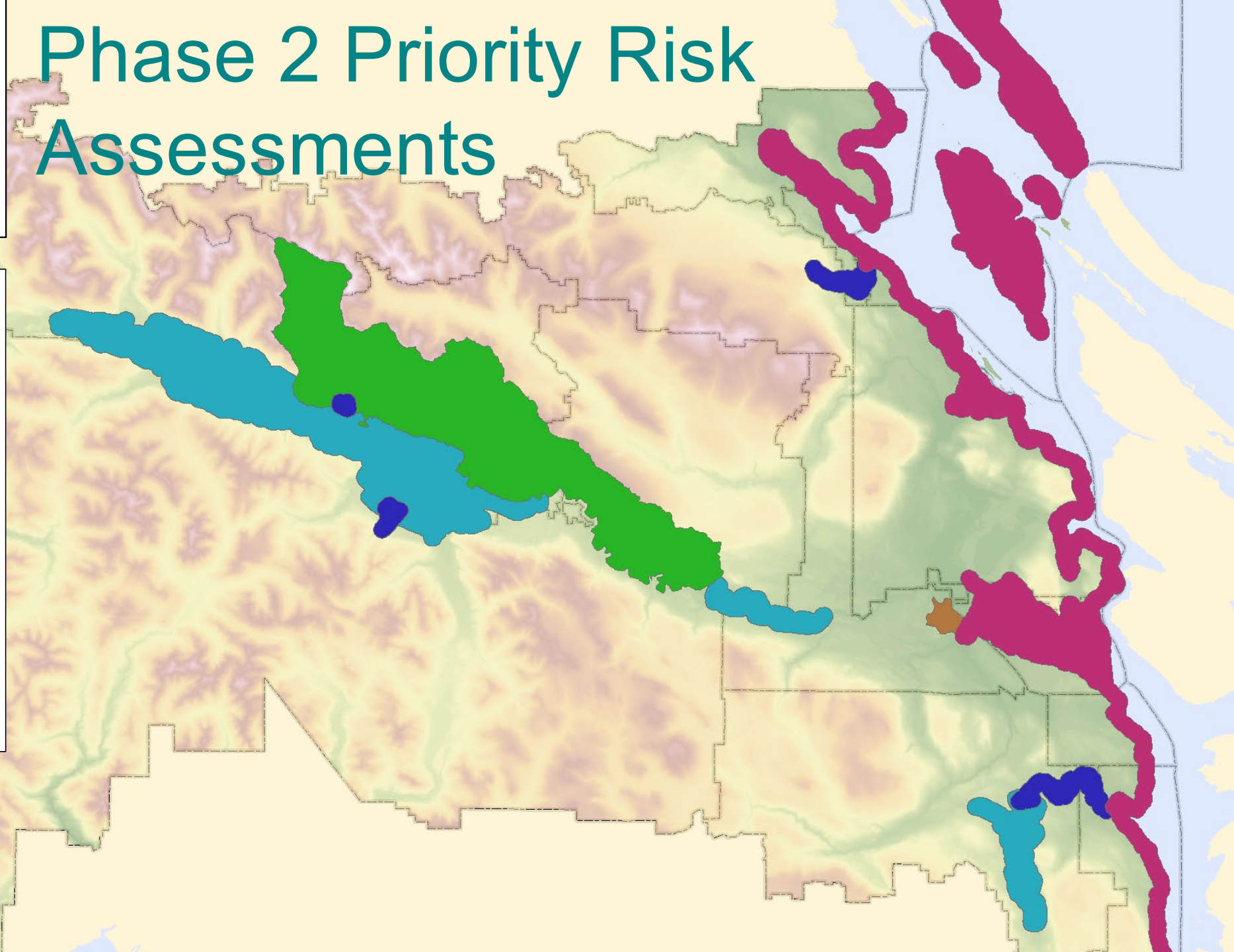
Risk Assessment Study Areas

- Coastal Sea Level Rise Risk Assessment
- Dam Safety Review
- Floodplain Risk Assessment
- Geohazard Risk Assessment
- Stormwater Management

Phase 2 Priority Risk Assessments

In addition:

- Wildfire hazard mapping completed for the region
- Chemainus Flood management strategy - ongoing
- regional landslide analysis - ongoing
- shoreline analysis in Saltair area - ongoing



Phase 3 Climate Adaptation Strategy

Approved by the Board – **10 year plan**

Vision

Local government partners will take a proactive approach to prepare the social, economic, and environmental systems to the impacts of a changing climate.

5 Goals

- Build upon the regional partners current work on climate change adaptation and extreme weather preparedness
- Increase the resilience of infrastructure, programs and services to the changing climate in the Cowichan Region
- Protect the health, prosperity, and well-being of residents, especially vulnerable populations, to climate extremes
- Protect, conserve, and improve terrestrial and aquatic ecosystem health from the impacts of climate change; and
- Improve the awareness, knowledge, skills and resources of government, citizens and business people regarding climate adaptation

45 Local government led actions across 5 theme areas

1. Resilient Green and Grey Infrastructure
2. Community Health and Emergency Management
3. Green Growth and Sustainable Development
4. Ecosystems and Bioregional Carrying Capacity
5. Cross Cutting Actions

Resilient Grey and Green Infrastructure

Improve the climate resiliency of the built environment in terms of its durability, functionality and sustainability.

- Promote **higher development standards** that reflect the best available climate information by updating by-laws, design requirements, development guidelines, and zoning regulations.
- Ensure **natural hazards** (e.g., erosion, flooding, sea-level rise, etc.) **are considered in land-use planning** to protect development from hazardous conditions and maintain the functionality of green and grey infrastructure.
- Update **official community plans** to direct future development, redevelopment, and infrastructure to areas with low hazards and environmental sensitivity.
- Applying the climate change **risk assessment** framework for regional **infrastructure**.
- Document climate change risk assessment results into **sustainable service delivery plans**.
- Establish Regional **Active Transportation** Strategy

Led by: Municipal partners, CVRD Asset Management, Water and Sewer System Services; Recycling and Solid Waste, Parks and Trail, Facilities.



Community Health and Emergency Management

Enhance protection of community members' health and safety from the risks associated with extreme weather impacts and changing climate conditions.

- Conduct hazard, risk and vulnerability assessment (**HRVA**) to integrate assessment flood, to develop an integrated assessment of wildfire, landslide and all natural hazards to assess risk to critical infrastructure, economy, social well being and public safety. The output will be controls to manage natural hazard risk.
- Establish a **monitoring system** for current and forecasted flood, drought, air quality and weather to understand potential community health impacts
- Establish community **clean air shelters** to mitigate the impact of wildfire smoke on vulnerable populations.

Led by: Municipal partners, CVRD Emergency Management, Environmental Services, facilities



Green Growth and Sustainable Development

Increase the adaptability of businesses and industry in a changing climate to enable a thriving regional economy.

- Develop **strategic agriculture plans** and promote direct farm marketing for areas in the region with a significant agricultural sector.
- Work with local businesses and tourism industries to explore adaptation options, business continuity planning, and diversification in the face of a changing climate.
- Develop a **Circular Economy Strategy/Action Plan**
- Develop long term **agriculture water sustainability plans**

Led by: Municipal partners, CVRD
Economic Development



Ecosystems and Bioregional Carrying Capacity

Preserve and enhance local biodiversity and the resilience of the natural environment and water resources throughout the region.

- Conduct ongoing research to update the **Environmentally Sensitive Areas (ESA) Strategy** and ensure climate change impacts are adequately addressed over the long-term.
- Continue to proactively **manage all regional local government owned forested areas** to increase forest resilience to wildfires, while considering biodiversity in its planning.
- 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 conflicts over water use.
- Develop coordinated **watershed management plans** to assist and inform land use planning

Led by: Municipal partners, CVRD Community Planning, Environmental Services, Parks and Trails



Cross Cutting Actions

- **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.
- **Communicate long-term climate change projections** and related research to community stakeholders, partners, and the public.
- Keep **up to date with best practices** for adaptation action, and work with local communities to inform climate impacts and equitable adaptation and risk mitigation planning.
- Conduct a **review** of OCPs and other **key service-level plans** and policies (Emergency Management Plan, Active Transportation Plan, etc.) to identify where climate adaptation objectives and actions can be integrated.
- Continue to **work with local First Nations** on the development of coordinated and collaborative climate adaptation initiatives and programs.

Led by: All



Next steps for establishing the Climate Adaptation Strategy

- Presentations to municipal Councils – Nov to Dec 2021
- Workshops with municipal staff to incorporate additional municipal actions and implementation steps into the Strategy – Nov to Dec 2021

This is a continuation of the work that municipal staff and partnering organizations have been part of since 2014

- Finalize Implementation Plan – Feb 2022
- Present Strategy and Implementation Plan - Feb 2022