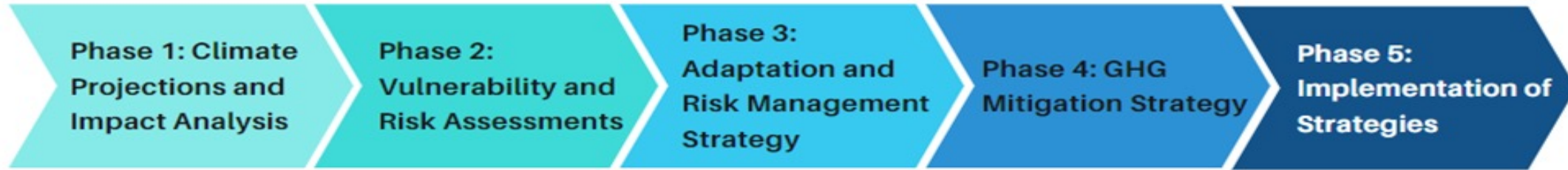


Regional Climate Change Adaptation and Risk Management Strategy

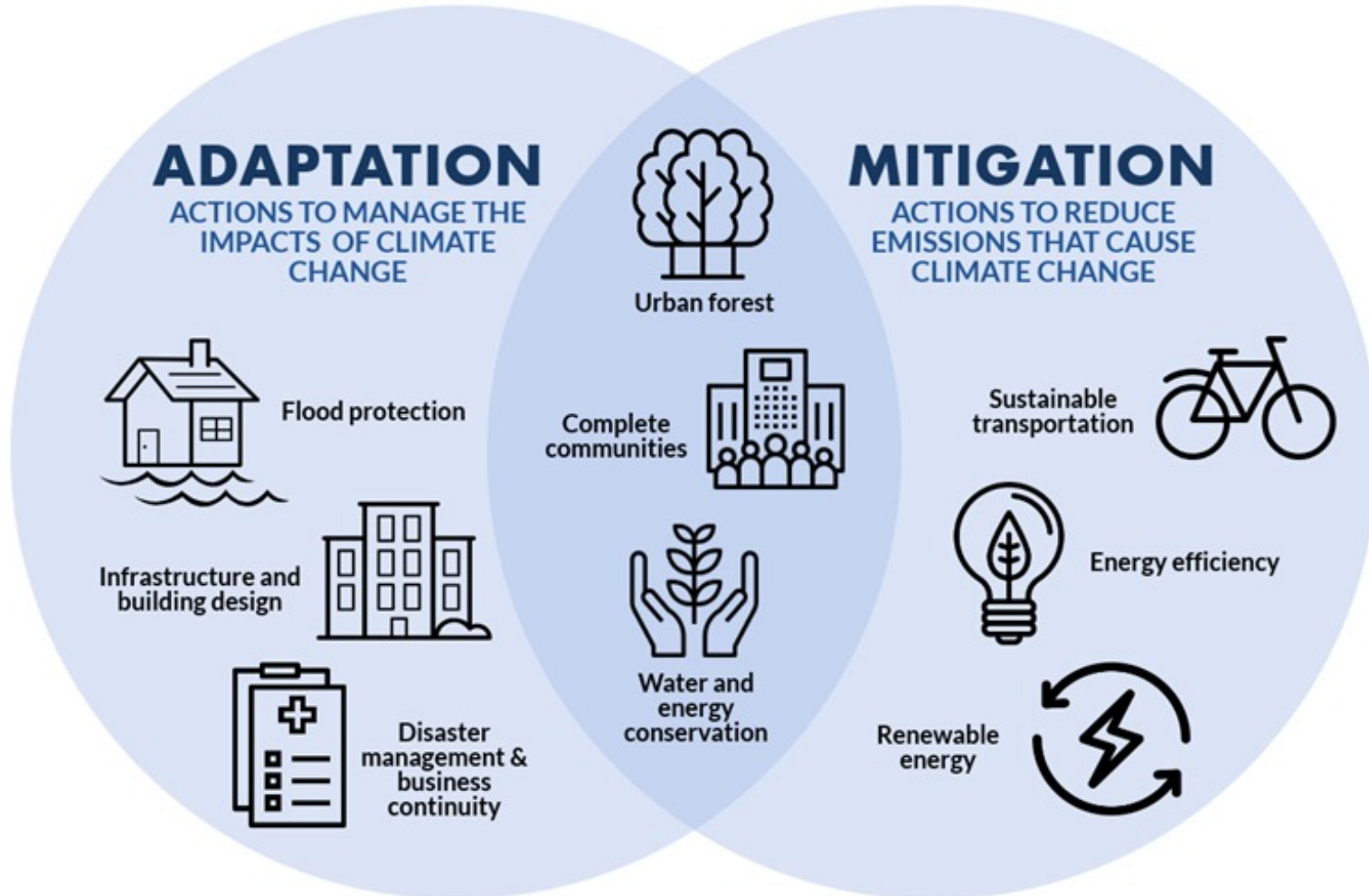
New Normal Cowichan

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. Approved**
- Finalizing the **MNC Climate Energy & Action Plan Update** to reduce community GHG emissions. **Approved**
- Completing a **Regional Energy Strategy** to identify opportunities for developing locally-sourced renewable energy. **Approved**
- Completed **CVRD Strategic Energy Management Plan** building, community centres and assets. **Approved**
- Approval of the **Implementation Strategy** - 2022
- **Implementation** of the Climate Change and Risk Management Strategy – 2022. **Ongoing**

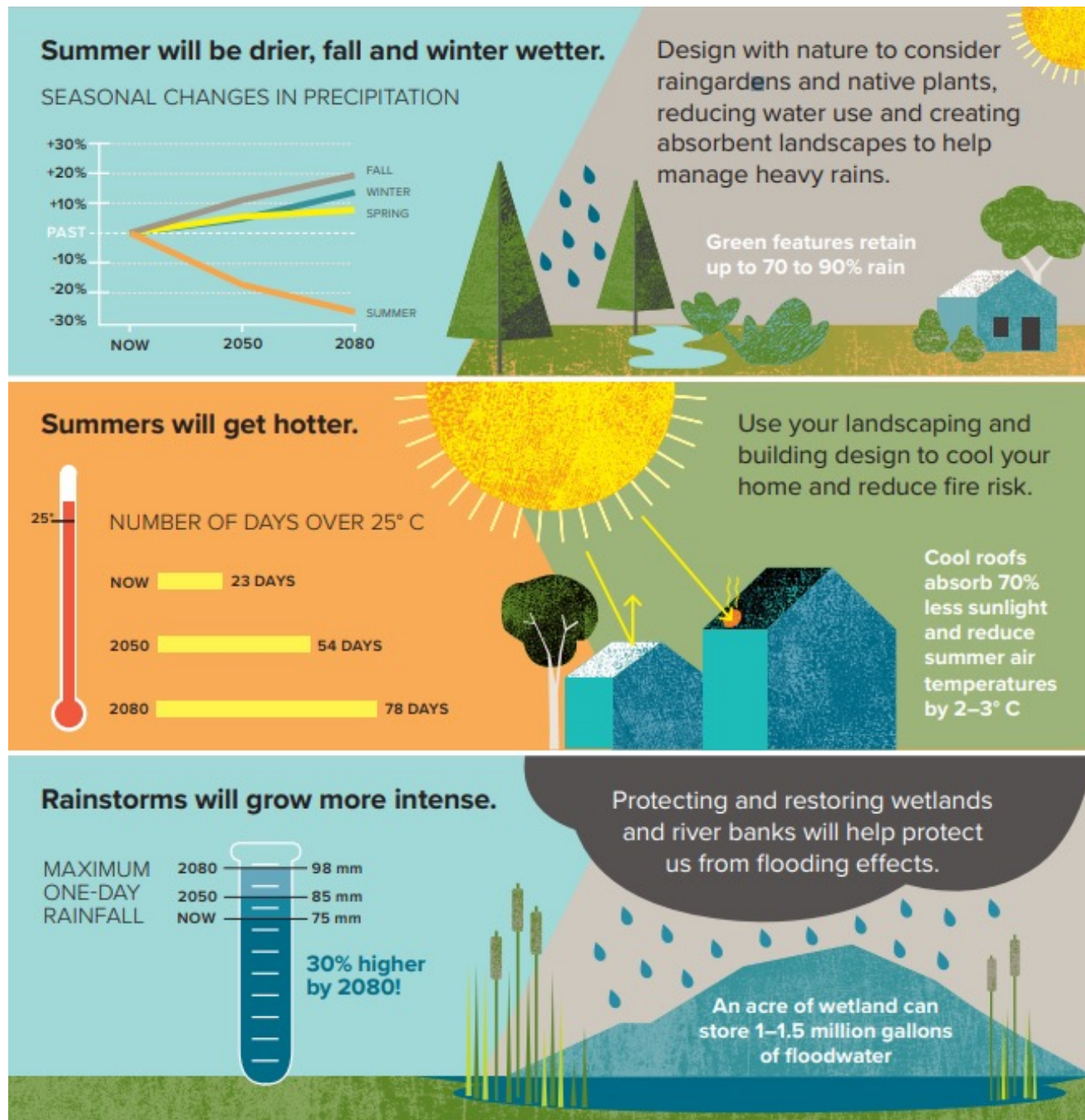
Adaptation vs Mitigation



Phase 1 Climate Projections

Projections help us:

- understand what our future will look like
- inform the actions we can all take to adapt
- Specific to our region and at scale for action



Phase 2 Risk and Hazard assessments

Key programs

- Long term water supply – Cowichan River and groundwater
- Flooding mapping and protective infrastructure
- Fire urban fire interface Assessment
- Slope Stability Assessments
- Air quality monitoring
- Establishment of a regional hydrometric and climate monitoring network
- Inclusion of climate in asset management risk assessments
- **Establishment of CVRD hazard and risk tolerance policy and standards**



Phase 3 Climate Adaptation Strategy

Approved by the Board in February 2021 – **10 year plan..**

Vision

Local government partners in the Cowichan region 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 Actions across 5 theme areas

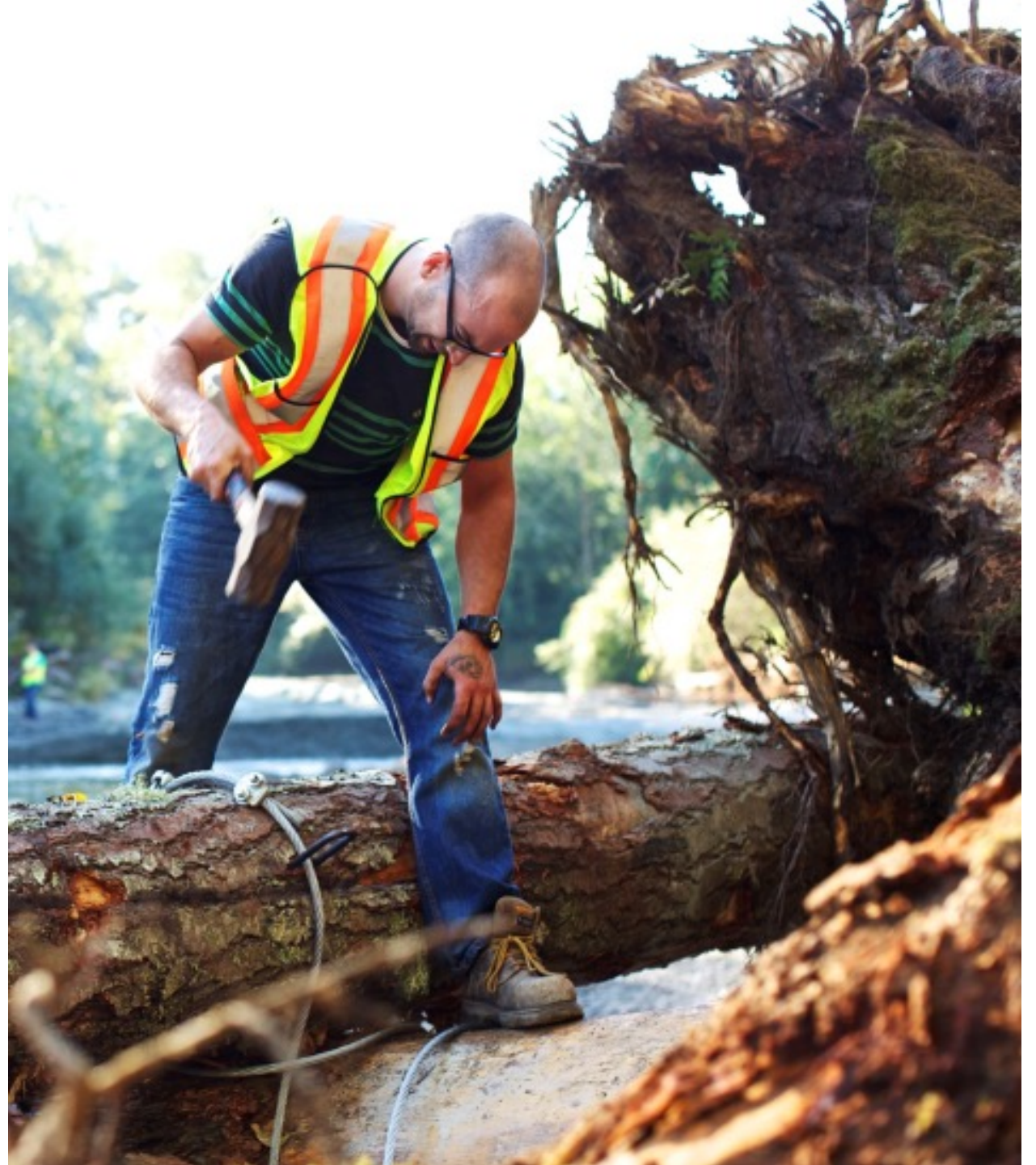


Phase 4

Implementation

Strategy – getting to work

- If you don't plan you don't act.
- If you don't implement you don't achieve your goals
- If you don't collaborate you cannot achieve what needs to be done
- If you don't monitor you don't stay on track
- The implementation plan takes the 45 actions and puts them on the ground. When will they be done? by who? and at what cost? The implementation strategy recognizes that the reality of limited local government resources and capacity and breaks the actions into near term, mid term and long term bundles.



Ongoing outreach and communications

- New normal website
- Air quality
- Natural hazards brochure sent to every household.
- Specific public meetings and presentations
- All hazard reports and GIS files posted to CVRD website for public access



Air Quality Sensors in a neighbourhood near you



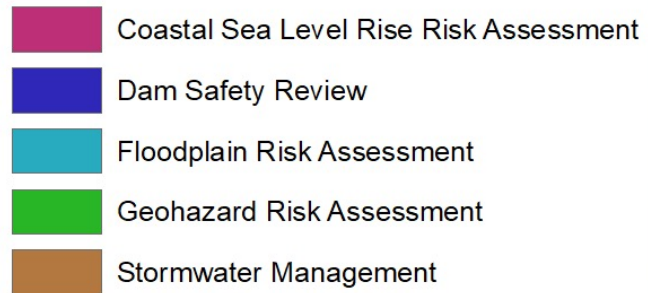
NOW YOU CAN

- Check your local air quality online with the PurpleAir Map
- Understand patterns of fine particles (PM_{2.5}) in our air
- Fine air quality hotspots in the region

Cowichan Air Quality Partnership

A collaborative project led by local and provincial government, First Nations, and local air stewards

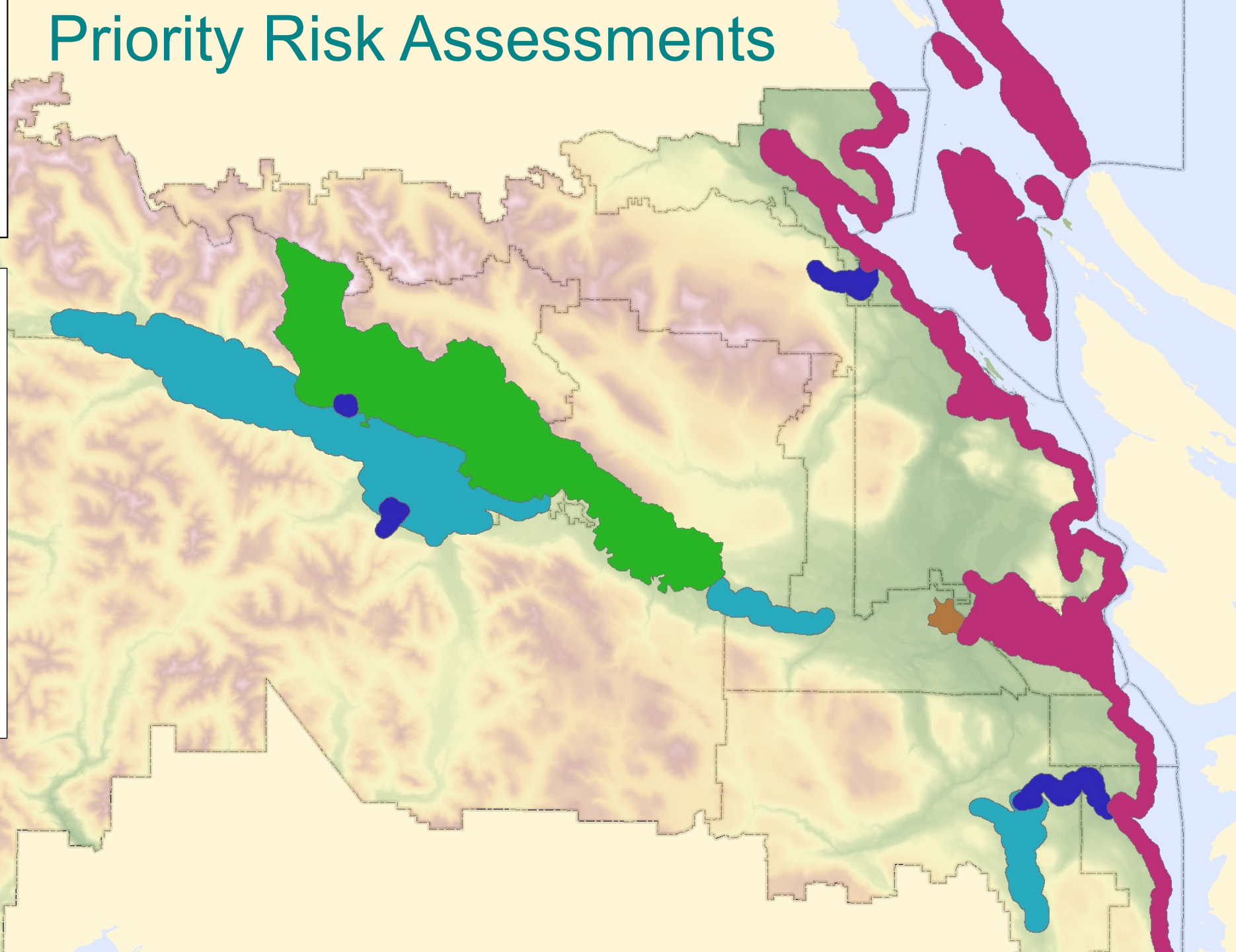
Risk Assessment Study Areas complete



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



Thank you

Climate Adaptation Strategy

Actions according to the 5 themes

Vision

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

5 Goals

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45 Actions across 5 theme areas



Resilient Grey and Green Infrastructure

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

- Applying climate change **risk assessment** framework for local government infrastructure in the region
- Incorporate climate change risk assessment results into sustainable service delivery plans
- Promote **higher development and engineering** standards that reflect the best available climate information by updating by-laws, design requirements
- Include climate change and environment considerations in **land-use planning** including official community plans, development permit areas, zoning, development guidelines and bylaws
- Establish **Rainwater / Stormwater Management plans**
- Develop **Integrated Flood Management Plans** to account for climate change for all regional floodplains and coastlines



Opportunities to be led by: CVRD & Municipal Partner Community Planning, CVRD & Municipal Partner Water and Waste Water Systems, CVRD & Municipal Partner Parks and Trails, Facilities, Recycling & Solid Waste

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.

- Complete hazard, risk and vulnerability assessments into a single regional (**HRVA**) and develop an integrated strategy to address: flood, wildfire, landslides and all natural hazards to assess risk to critical infrastructure, economy, social well being and public safety.
- 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.

Opportunities to be led by: CVRD Emergency Management, CVRD & Municipal Partner Environment



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 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 **Regional Circular Economy Strategy/Action Plan**
- Develop long term **agriculture water sustainability plans**

Opportunities to be led by: CVRD
Economic Development, Municipal
Partner Planning, CVRD Environment



Ecosystems and Bioregional Carrying Capacity

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

- Update the **Environmentally Sensitive Areas (ESA) Strategy** and ensure climate change impacts are adequately addressed over the long-term.
- **Manage all regional local government owned forested areas** to increase forest resilience to wildfires, while considering biodiversity in its planning.
- Develop long-term **Community Water Security Plans** and to reduce future conflicts over water use under the Drinking Water and Watershed Protection (DWWP) program.
- Develop coordinated **watershed management plans** to assist and inform land use planning.



Opportunities to be led by: Municipal Partner & CVRD Environment, Municipal Partner & CVRD Parks and Trails, Municipal Partner Forestry

Cross Cutting Actions

- **Maintain relationships with subject matter experts** who conduct research climate change impacts, to understand 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.

Opportunities to be led by: All

