



cleanBC

our nature. our power. **our future.**



- Outlines B.C.'s plan to reach our 2030 climate targets
- Lays out actions that credibly reduce our emissions, with sector-by-sector approach to transportation, buildings, and industry
- Commits the Province to develop a climate adaptation strategy for release in 2020

WHAT'S IN CLEANBC



- Moving to lower carbon substitutes including clean electricity
- Partnering with business to create a low-carbon industrial strategy
- Clear path to 2030 emissions reduction targets: 40% below 2007
 - describing specific GHG reductions for first 75% of reductions
 - remaining 25% to be identified over the next 18-24 months (from late 2017)
- **18.9 Mt of GHG reductions:**
 - 6.0 Mt reduced from cleaner transportation initiatives
 - 2.0 Mt reduced from improving where we live and work
 - 8.4 Mt reduced from cleaner industry initiatives
 - 0.7 Mt reduced from waste
 - 1.8 Mt reduced from carbon pricing

WHAT'S IN CLEANBC



Government is committed to:

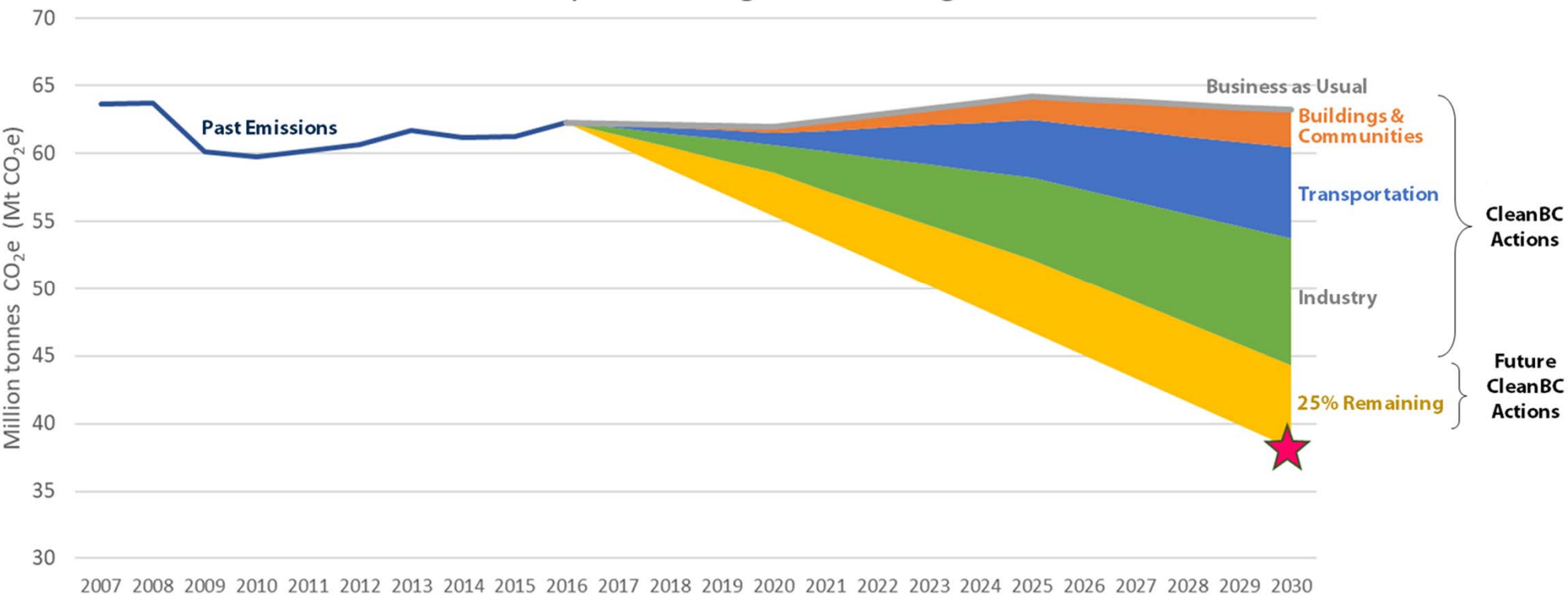
- Meeting our GHG reduction targets
- Growing a prosperous low-carbon economy
- Making sure cleaner options are affordable
- Working towards reconciliation with Indigenous peoples
- Creating more opportunities for businesses
- Helping workers get the skills they need



REACHING OUR 2030 TARGETS



Pathway to meeting our climate goals



ELECTRIFYING KEY SECTORS



- Meeting our GHG targets may be achieved by electrifying key sectors
 - Including housing, transportation, industry
- By 2030, CleanBC policies will require an additional 4,000 gigawatt-hours of electricity
 - This demand is over and above projected BC Hydro demand growth
 - It is equivalent to an 8% increase, and roughly the same as the electricity demand for the City of Vancouver
 - Existing and planned projects that harness B.C.'s vast wealth of clean, renewable power can meet this growth
- Meeting our 2040 and 2050 targets will require substantial additional volumes of new clean electricity



CLEANER TRANSPORTATION



Bring down the price of clean vehicles

Just over 20 years from now, every new car will be a zero-emission vehicle (ZEV) with phased-in increases to the ZEV standard

Help people to afford cleaner cars and save money on gasoline bills with ZEV incentives

Make it easier to charge or fuel a ZEV

Speed up the switch to cleaner fuels

Make our fuel cleaner by increasing the low carbon fuel standard to 20% by 2030 and increasing the production of renewable transportation fuels

Make vehicles run cleaner by increasing tailpipe emissions standards for vehicles sold after 2025

IMPROVE WHERE WE LIVE AND WORK



Better buildings	Make every building more efficient by improving the Building Code and increasing efficiency standards
Support for better buildings	Incentives to make homes more energy-efficient and heat pumps more affordable
	Upgrade public housing to make it more comfortable and energy-efficient
	Make residential natural gas consumption cleaner by putting in place a minimum requirement of 15% to come from renewable gas
Support for communities	Help remote communities reduce dependence on diesel and support public infrastructure efficiency upgrades and fuel switching to biofuels with the CleanBC communities fund

CREATING NEW OPPORTUNITIES



CleanBC training and retraining for new and mid-career workers

- Trades training for the construction industry
- ZEV training for mechanics and electricians
- Ongoing labour market analysis will support further initiatives

CleanBC Job Readiness Plan

- Will examine future career opportunities in the low carbon economy - where jobs may be located, supports needed, and opportunities for mid-career workers to develop new skills



CLEANBC - OPPORTUNITIES FOR EVERYONE

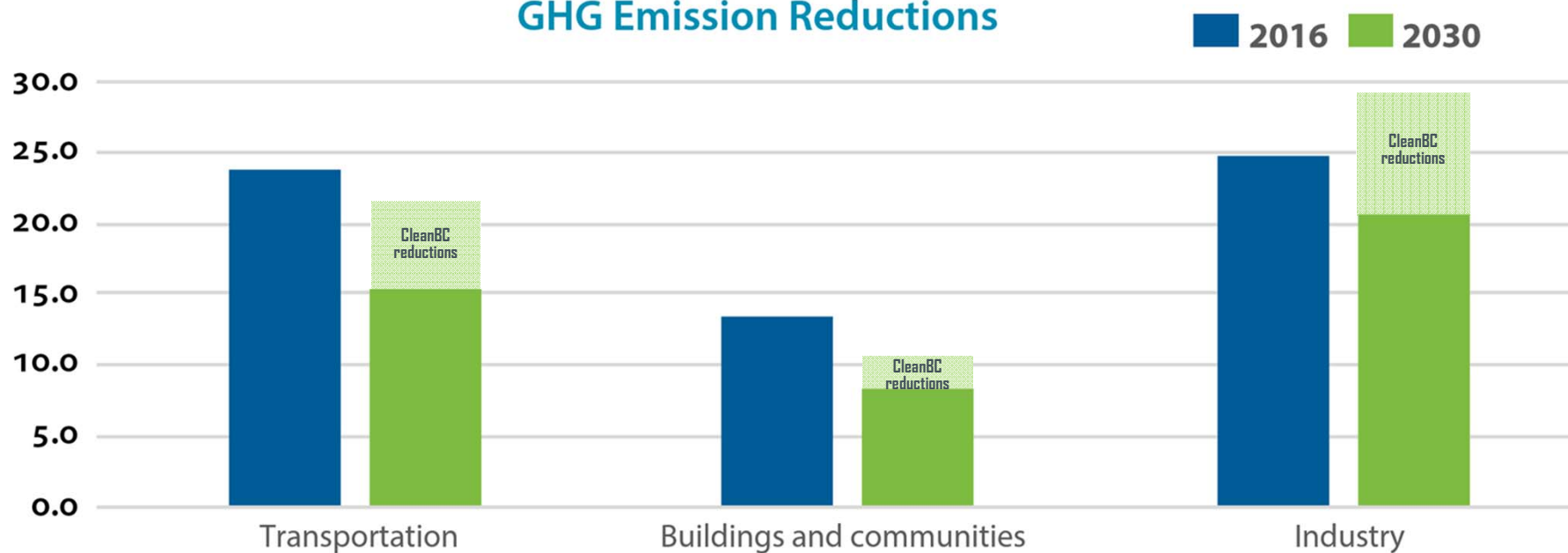


- Bring clean options within reach
- Look at more ways to support affordability for families
- Collaborate with Indigenous peoples
- Policies and programs will reflect diverse needs across our population
- Building resilience in our communities

THESE INITIATIVES WILL HAVE AN IMPACT



GHG Emission Reductions



STAYING ACCOUNTABLE



Recent amendments to the *Climate Change Accountability Act* strengthen our commitment to accountability and transparency and follow through on a key CleanBC commitment.

Proposed amendments:

- Establish an advisory committee to provide strategic advice on matters related to climate change
- Table annual accountability report in the legislature starting in 2020
- Set an interim target on the path to 2030 target by December 31, 2020
- Set sectoral targets by March 31, 2021, following engagement with stakeholders, Indigenous peoples and local governments.
- New regulatory authorities to set targets and requirements for provincial public sector buildings, fleets, and fuels to reduce GHG emissions and manage climate change risks



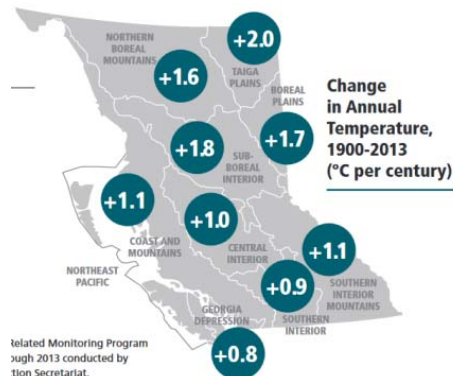
Climate Ready BC: Preparing Together

Developing a Climate Preparedness and Adaptation Strategy for BC

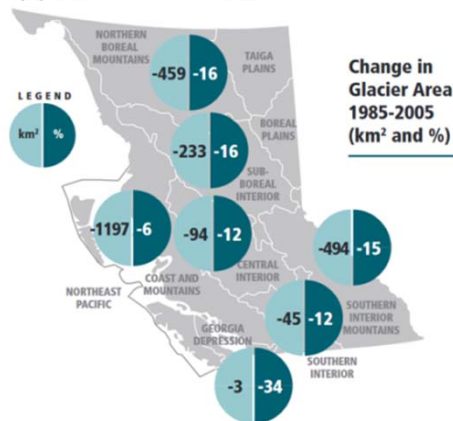
Tina Neale, Director, Climate Risk Management

The Climate is Changing in BC

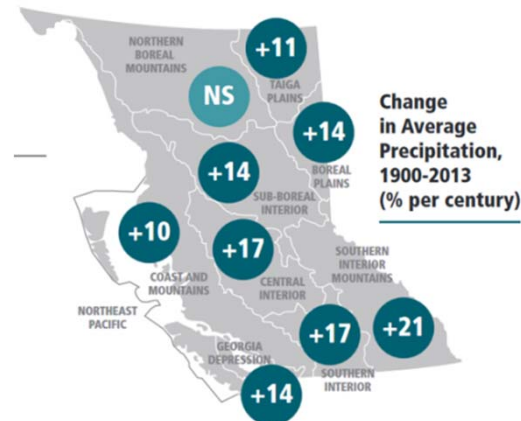
BC has warmed



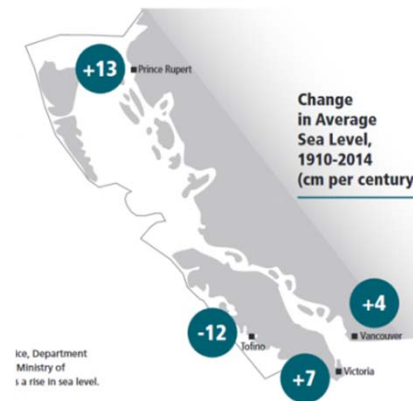
Glaciers are shrinking



BC has become wetter



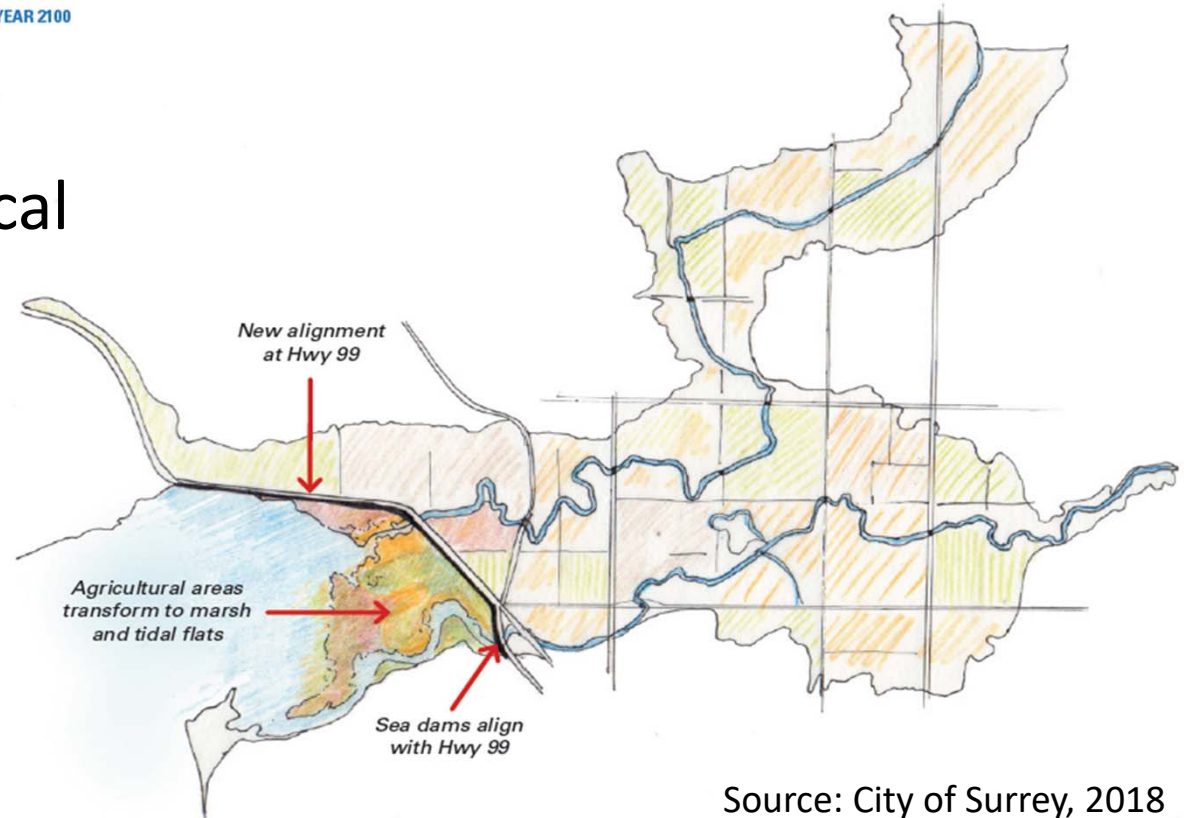
Sea Levels have risen nearly everywhere



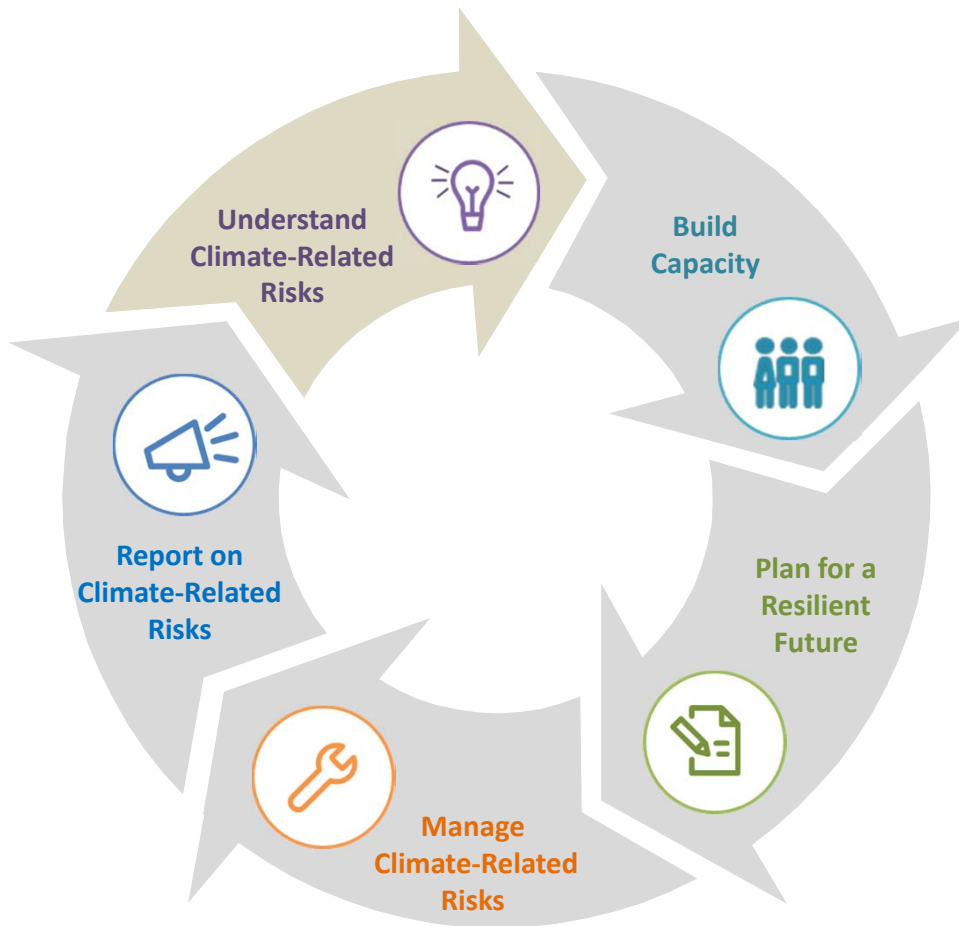
What is Climate Adaptation?

YEAR 2100

Adjustments in social, economic, built, or ecological systems in response to the effects of climate change.



Source: City of Surrey, 2018



Building Blocks for Adaptation

Climate Risk Assessment Overview

Objective

- Assess, compare, and prioritize potential climate-related risks with significant provincial impacts on fundamental qualities of life in the province
 - <https://www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/risk-assessment>

Components

- *Strategic Climate Risk Assessment Framework for British Columbia*
- *Preliminary Strategic Climate Risk Assessment for British Columbia*



Risk Events and Scenarios: Discrete Events

1. **Severe Riverine Flooding:** 500-year flood on the Fraser River
2. **Moderate Flooding:** Moderate flood in a single community
3. **Extreme Precipitation and Landslide:** Significant landslide in Hope triggered by extreme precipitation
4. **Seasonal Water Shortage:** Months-long summer water shortage affecting two or more regions
5. **Severe Coastal Storm Surge:** 3.9 m storm surge during a king tide along the B.C. coast
6. **Heat Wave:** Heat wave of at least three days that affects human health
7. **Severe Wildfire Season:** At least one million hectares burned that affect human settlements

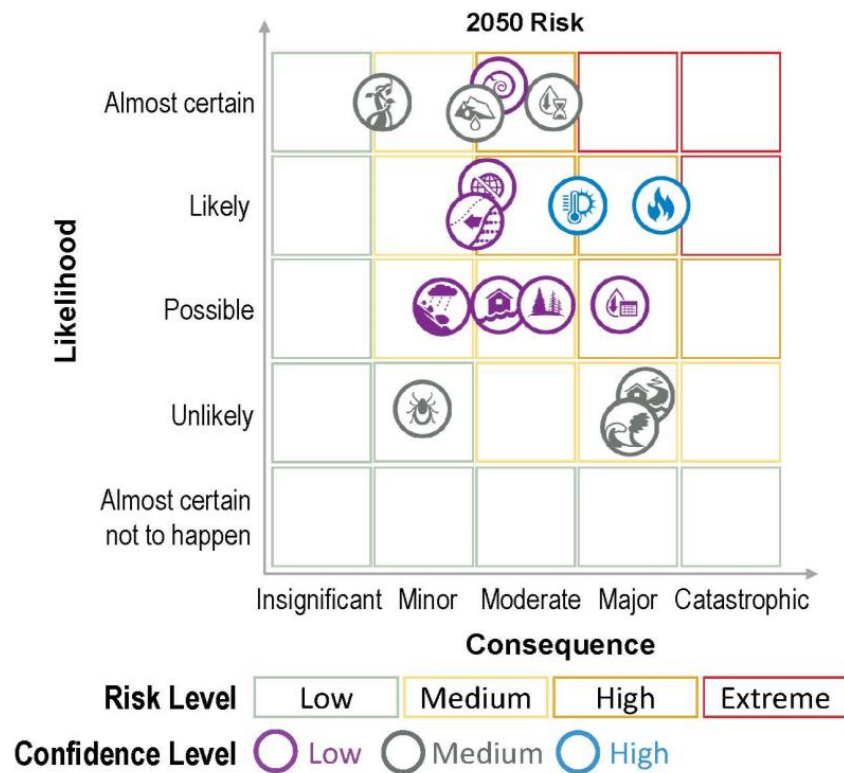


Risk Events and Scenarios: Slow-onset Risks

8. **Long-term Water Shortage:** Multi-year water shortage in at least one region
9. **Glacier Mass Loss:** 25% decline in glacier area by 2050
10. **Ocean Acidification:** 0.15 reduction in pH by 2050
11. **Saltwater Intrusion:** At least seasonal saltwater intrusion into the Fraser River delta and surrounding communities by 2050
12. **Loss of Forest Resources:** 25% decline in timber growing stock by 2050
13. **Reduction in Ecosystem Connectivity:** Reduction in ecosystem connectivity in the Okanagan-Kettle region by 2050
14. **Increase in Invasive Species:** Expansion of knotweed by 2050
15. **Increased Incidence of Vector-borne Disease:** At least a doubling of Lyme disease cases



Overall Results



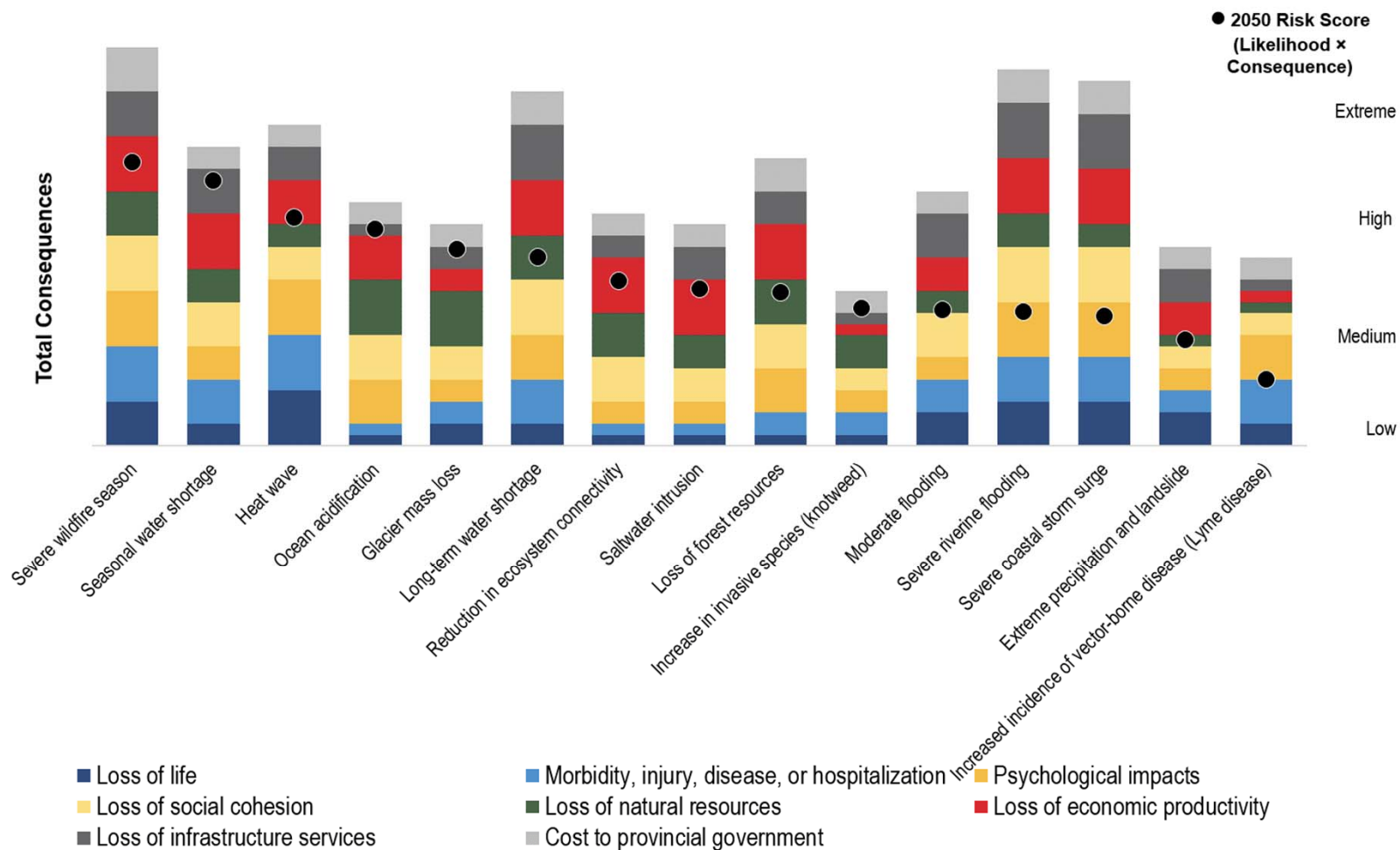
Highest-ranked Risks

- Severe wildfire season – High
- Seasonal water shortage – High
- Heat wave – High
- Ocean acidification – High
- Glacier mass loss – High
- Long-term water shortage – High

Lowest-ranked Risks

- Increased incidence of vector-borne disease (Lyme disease) – Low

Overall Results - Consequences



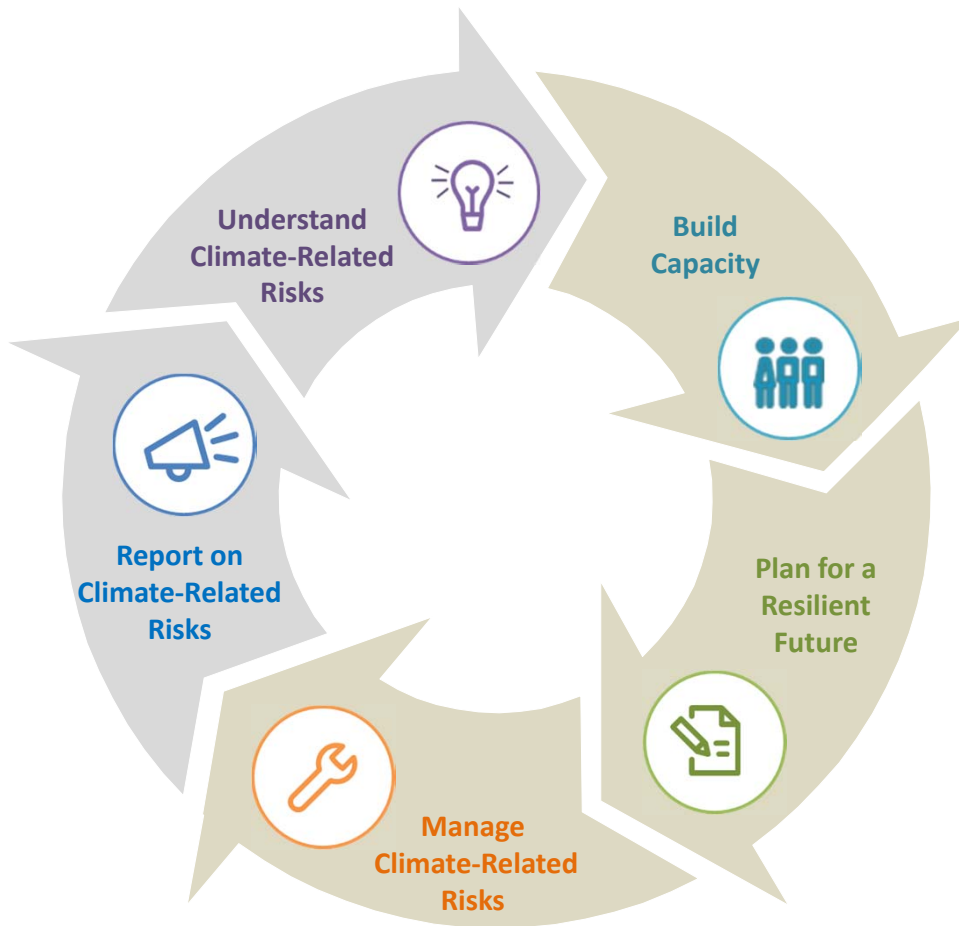
*Individual consequences are rated on a scale of 1 to 5 (Insignificant to Catastrophic). The size of the bar indicates individual consequence ratings.

Key Findings

- **Greatest risks:** Severe wildfire season, seasonal water shortage, heat wave, ocean acidification, glacier mass loss, and long-term water shortage.
- **Highest consequences:** Severe riverine flooding and severe coastal storm surge. Relatively low likelihood reduces their overall risk.
- Nearly all risk events would have at least “major” consequences in at least one category.
- The majority of risk events would have “catastrophic” economic consequences.
- High risk events include both discrete events (such as wildfires, water shortage, and heat waves), as well as slower-onset, gradual climate changes (such as ocean acidification and glacier mass loss).
- Of all risk events assessed, climate change most influences the likelihood of glacier mass loss.

Next Steps Climate Risk Assessment

- Engage with Indigenous perspectives to develop culturally appropriate approaches to climate risk assessment
 - Begin to gain an understanding of how to assess risks to cultural resources
- Develop and pilot Strategic Climate Risk Assessment Framework for ministry/program, sectoral, and regional scales



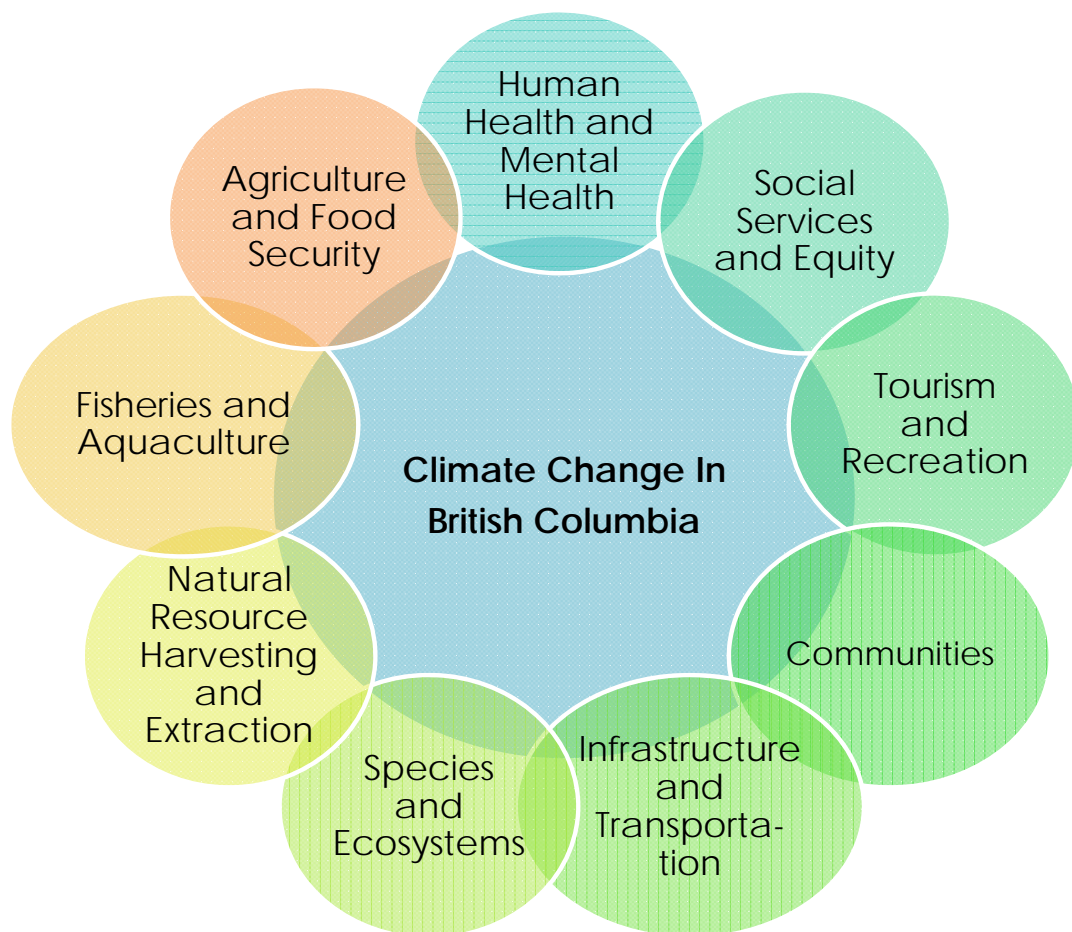
Building Blocks for Adaptation



In 2020, the province will develop, in collaboration with Indigenous Peoples, a new adaptation strategy to manage climate-related risks.

Climate Preparedness and Adaptation Strategy

- Risk assessment > identify gaps and needs
- Strategy themes align with current and upcoming initiatives
 - **Public Sector Leadership**
 - **Disaster Risk Reduction**
 - **Building for the Future Climate**
 - **Developing Capacity**
 - **Indigenous and Local Government Resilience**



Whole of Government Approach Needed

ClimateReadyBC: Preparing Together



Public Engagement launched!

Join the conversation:

engage.gov.bc.ca/climatereadybc



Ministry of
Environment and
Climate Change Strategy



Thank you!

Questions?

ClimateRisk@gov.bc.ca
ClimateReadyBC@gov.bc.ca