

# PRELIMINARY STRATEGIC CLIMATE RISK ASSESSMENT FOR BRITISH COLUMBIA



Our changing climate is impacting people and communities across the province. With improved understanding of these risks in B.C., we can be better prepared for the changes ahead.

The Government of B.C. has completed a Preliminary Strategic Climate Risk Assessment to better understand climate-related risks in B.C. and help government develop appropriate measures to address those risks. The risk assessment is phase one of a project that was initiated in response to the 2018 BC Auditor General's report, *Managing Climate Change Risk: An Independent Audit*.

Led by the Climate Action Secretariat with input from across government and support from Natural Resources Canada, the Province has developed a climate risk assessment framework to provide a consistent, replicable and scalable approach. Using this framework, the Province assessed 15 provincially-significant climate risk events for B.C.

The assessment evaluates the likelihood of each of the climate risk events occurring, both now and in the 2050s, assuming high global emissions.\* The report also evaluates the consequences of each event across eight dimensions covering health, social, economic and environmental impacts. The results show that the greatest risks to B.C. are: severe wildfire, seasonal water shortage, heat wave, ocean acidification, glacier loss, and long-term water shortage. Other risks, such as severe river flooding and severe coastal storm surge have a lower likelihood but would result in major consequences for infrastructure, public health, the environment and the economy.

The assessment will inform discussions on climate risk management within government and support development of the provincial climate adaptation and preparedness strategy. The strategy will build on provincial initiatives already underway, including those that support local government planning, improve transportation infrastructure, help agricultural producers prepare, and promote productive forests with seedlings matched to the future climate.

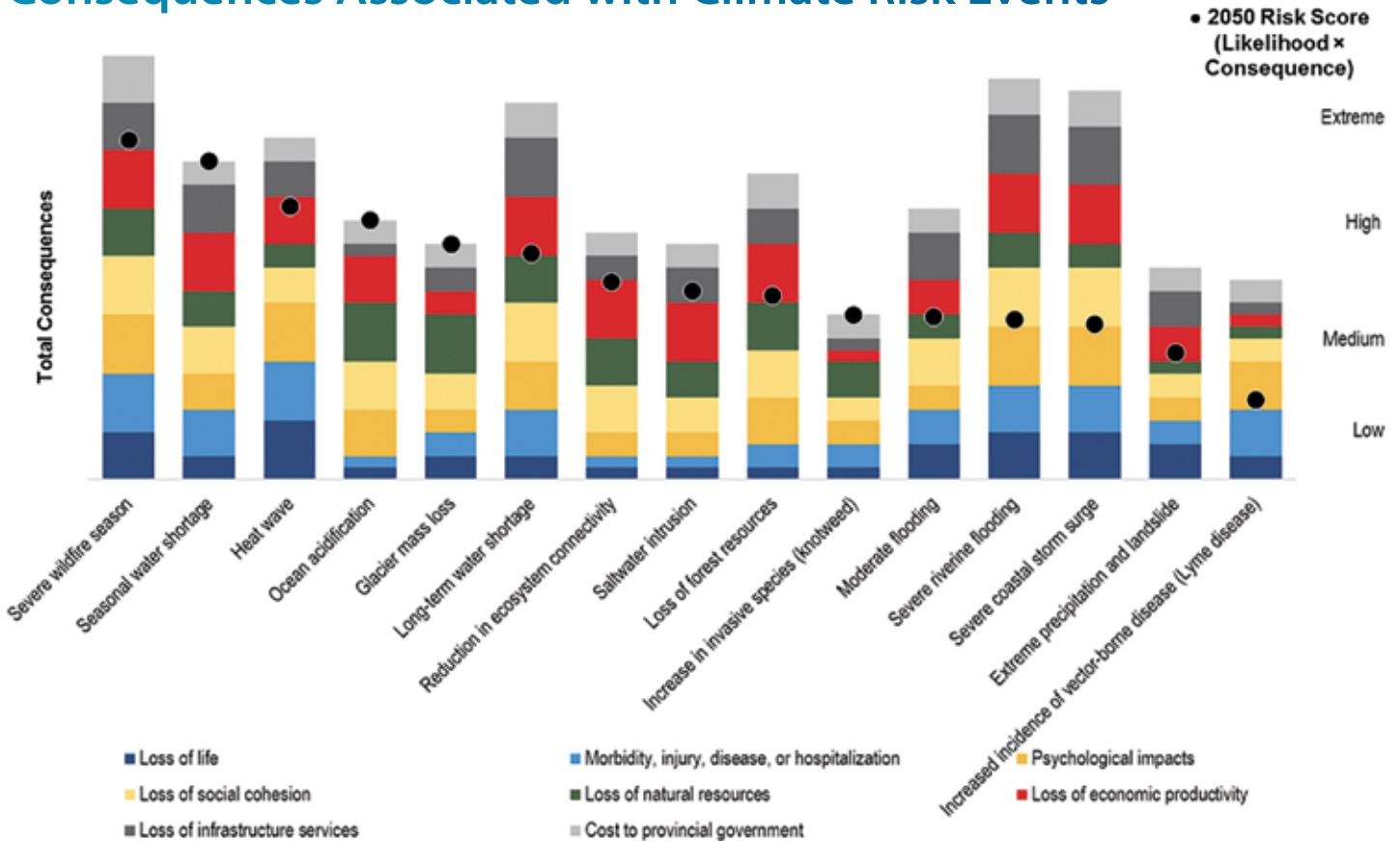
This is the first provincial-scale climate risk assessment in Canada. As a high-level assessment, the results are intended for use at a provincial level and do not assess risks at other levels, such as local or Indigenous communities or a specific sector or region of the province. The assessment is not a predictor of future events. It is a tool to evaluate the likelihood and potential consequences of each event happening in the future to understand the degree of risk it poses for the province and help government prepare.

The Climate Action Secretariat is working to understand Indigenous perspectives on the effects of climate change and identify approaches that support Indigenous resilience in the face of climate change.

The Climate Action Secretariat plans to customize and pilot the risk assessment framework for use in ministry, program and regional level climate risk assessments. This work will support ministries and other organizations in understanding, prioritizing, and responding to emerging climate risks.

\* This is based on Representative Concentration Pathway (RCP) 8.5 by the Intergovernmental Panel on Climate Change (IPCC). This scenario was chosen to help characterize, at a strategic level, the most problematic climate-related risks that could potentially occur in BC.

# Consequences Associated with Climate Risk Events



Individual consequences are rated on a scale of 1 to 5 (insignificant to catastrophic). The size of the bar indicates consequences as the sum of the 8 consequence dimensions. Note that the 15 risk event scenarios do not comprehensively cover how climate change could affect B.C. or represent the only provincially-significant climate risks.

## Key findings

- The greatest risks to B.C. are severe wildfire season, seasonal water shortage, heat wave, ocean acidification, glacier loss, and long-term water shortage.
- Other risks that have the potential to result in significant consequences include severe river flooding and severe coastal storm surge, although these events are less likely to occur.
- Nearly all risk event scenarios (except moderate flooding and extreme precipitation and landslide) would have major province-wide consequences in at least one category.

**The Climate Action Secretariat is using the Preliminary Strategic Climate Risk Assessment as it works across government to help B.C. prepare for a changing climate.**

**The Province also continues to rise to the challenge of climate change by reducing carbon pollution and putting B.C. on the path to a cleaner, stronger future.**

Learn more: [www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/risk-assessment](http://www2.gov.bc.ca/gov/content/environment/climate-change/adaptation/risk-assessment)

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