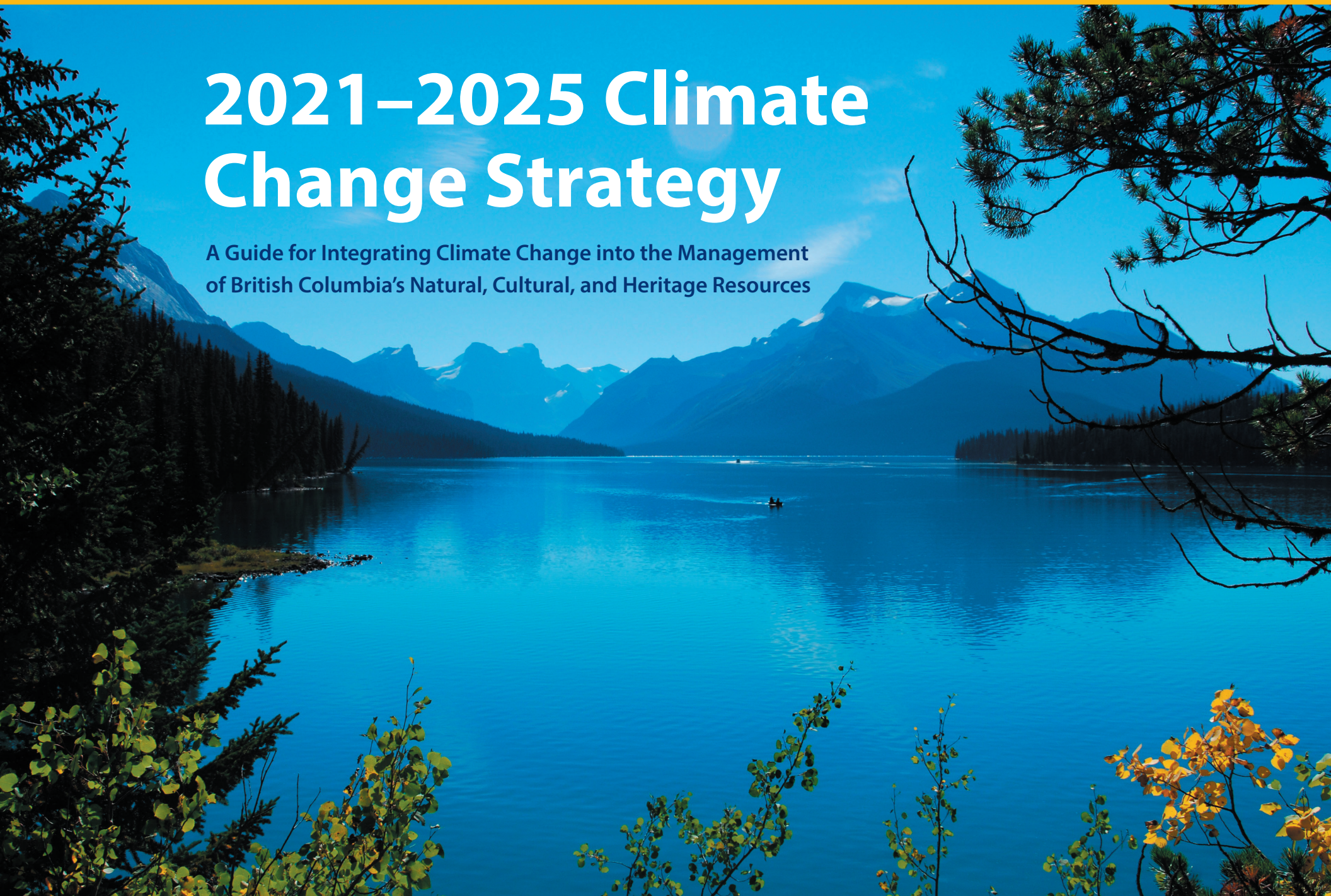
BRITISH COLUMBIA | Ministry of Forests

2021–2025 Climate Change Strategy

A Guide for Integrating Climate Change into the Management of British Columbia's Natural, Cultural, and Heritage Resources



Vision

B.C.'s communities and ecosystems are resilient to climate change through effective and climate-informed stewardship.

B.C.'s natural resources and economy are sensitive to climate change. Strong evidence demonstrates that temperatures in B.C. have already experienced significant change over the past century. Exacerbating climate challenges further, it is expected that average B.C. temperatures will be 1.4-1.9°C warmer thirty years from now than they were thirty years ago.

According to the Canada's Changing Climate Report produced by Environment and Climate Change Canada in 2019 and the Preliminary Strategic Climate Risk Assessment released by Climate Action Secretariat in 2018, B.C. can expect higher temperatures causing more variable and extreme weather patterns in the future. Fundamental changes to land, water, and ecological systems are almost certain to occur.

Climate impacts on B.C.'s natural resources and communities are a major concern and will continue to intensify, requiring both mitigation and adaptation measures to maintain or increase resilience. Climate change and the increased likelihood of disasters will impact Indigenous Peoples and rural and urban communities in many, often disproportionate, ways. Marginalized populations often face multiple, overlapping inequities which are exacerbated by climate change. This includes reduced economic security due to job loss, evacuations, damage to homes and communities, and decreased food security. Furthermore, health effects can include respiratory problems from smoke and reduced air quality, exposure to extreme heat, and changes in the prevalence and geographic distribution of mosquito-, tick-, and other vector-borne diseases.

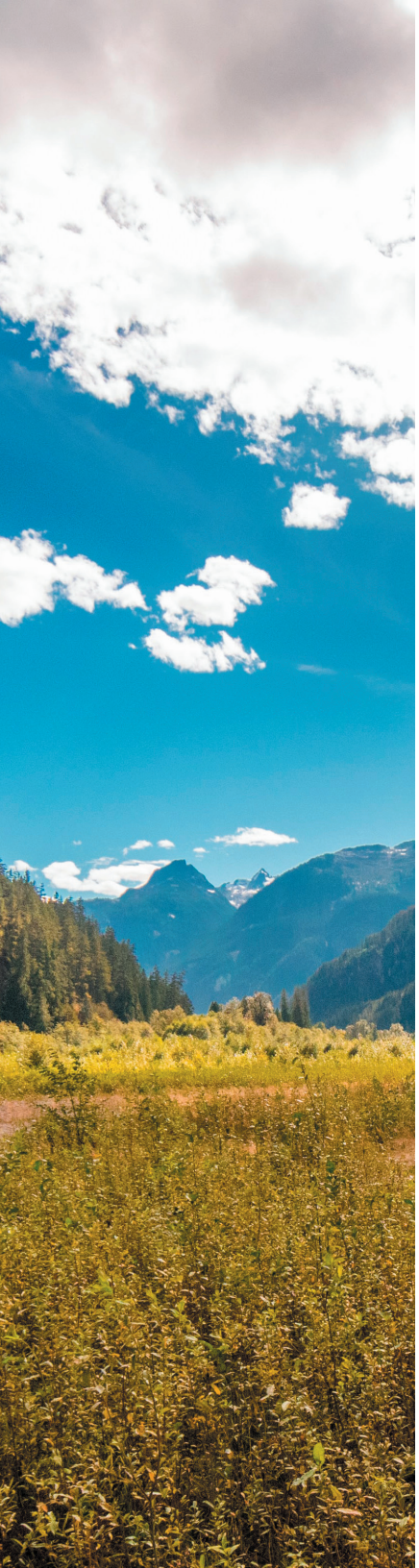
BC and the Ministry of Forests have taken action: The Ministry of Forests has invested in climate science for several decades and developed its first Climate Change Strategy in 2013. In 2018, Addressing the New Normal: 21st Century Disaster Management in British Columbia by Chief Maureen Chapman and George Abbott was released and provided broad recommendations for government to address. The Office of the Auditor General also released *Managing Climate Change Risks: An Independent Audit*. In response, the province developed a *Preliminary Strategic Climate Risk Assessment* and as part of the CleanBC initiative, and a provincial Climate Preparedness and Adaptation Strategy is nearly complete.

How will increasing temperatures impact the people of B.C.:

- Increasing climate variability will lead to more extreme weather patterns, and increase the likelihood of disasters including wildfire, flooding, and drought
  - » The 2015 droughts, 2017/2018 wildfires, 2018 floods, and 2021 heat wave are all examples of events that will be more frequent due to climate change
- Shifting rainfall and snowfall patterns will change the timing and magnitude of spring freshet and summer low flows
- Higher summer temperatures will increase hot and dry conditions which could decrease water supply, stress aquatic ecosystems, and increase wildfire risk
- Higher winter temperatures will continue to contribute to a greater proportion of precipitation falling as rain instead of snow, increasing the possibility of winter flooding
- Decreasing winter snow pack will cause some watersheds to shift towards rainfall dominant regimes, causing an increased need for water conservation and storage
- By 2050, B.C. will experience an average of 16-24 more frost free days each year
- Forest health is at risk due to climate change, with increasing prevalence of damaging agents such as beetles, pests, and pathogens

According to the 2018 Preliminary Strategic Climate Risk Assessment, the greatest risks to B.C. are wildfires, water shortages, heat waves, ocean acidification, glacier loss, and flooding.

Nearly all climate-related risk events will cause major localized or province-wide impacts.



The Ministry of Forests has been and continues to be a leader in responding to climate change: The Ministry's work on the Future Forest Ecosystem Scientific Council, formed in 2008, plus in-house research on forecasting climate change, its effects, and how to establish resilient forests have aided the adaptation of the natural resource management framework to climate change. Research into the management of forest carbon and long-lived forest products to store more carbon prepared B.C. to leverage its vast forest resources to help manage and adapt to the changing climate. The Ministry of Forests developed the Forest Carbon Strategy in 2016, and implemented the Forest Carbon Initiative in 2017.

Since the release of the 2015-2020 Ministry of Forests Climate Change Strategy, climate action plans for regions and branches were developed to provide priorities and direction for incorporating the consideration of climate change into ministry daily business. Progress is being made on integrating climate change into the planning and decision-making frameworks of multiple ministry programs, including reforestation, forest carbon, and bio-economy initiatives. Work is underway to develop adaptation tools, policy, and guidance for incorporating climate change into a wide range of statutory decision-making. The Chief Forester has also provided direction to incorporate climate change into forest health monitoring and integrate climate change considerations into Annual Allowable Cut determinations, including modeling for timber supply, growth and yield, and natural disturbances.

This strategy goes further: In support of the Ministry of Forests Service Plan commitment to "expand and strengthen climate change mitigation and adaptation activities", the 2021-25 Climate Change Strategy (the Strategy) provides a vision and framework of goals, objectives and strategic actions to guide the Ministry of Forests in reducing emissions, preparing for, and responding to the uncertainties and impacts of climate change. The Strategy also provides additional context to ministry responsibilities under the BC Climate Preparedness and Adaptation Strategy.

Adapting to and mitigating climate change in the natural, cultural, and heritage resource sectors requires an understanding of the projected long-term impacts of climate change, and the significance of the actions we need to take today. The way climate change impacts are managed now will have long-term implications for supporting the sustainability of resource values and resilience of Indigenous and non-Indigenous communities.

Ministry Priority Actions

Between 2021 and 2025 the Ministry of Forests plans to work with other ministries and external partners, including Indigenous Peoples, to deliver on CleanBC and Climate Preparedness and Adaptation Strategy commitments, and:

- Develop evidence-based and climate-informed guidance for applying a climate change lens to all Ministry of Forests resource management decisions to increase resilience of forests and ecosystems to the changing climate
- Build on success of the Forest Carbon Initiative investments in forest carbon projects by continuing to pursue opportunities such as the federal 2 billion tree initiative
- Complete, release, and work toward implementation of a BC flood strategy
- Plant climatically adapted tree species, planting stock and seed to manage for healthy, resilient forests under changing climate conditions and increase carbon storage
- Implement the Together for Wildlife Strategy
- Develop foundational guidance on climate change projections, scenarios and models to use in resource management decisions, including regional level guidance on scenario selection to provide consistency in analyses
- Re-introduce cultural and prescribed fire as an essential part of reducing wildfire risk to communities, sustaining biodiversity, maintaining productive and adaptive ecosystems, and preserving the cultural practices of Indigenous peoples
- Continue to provide policy direction and tools to better integrate climate adaptation into all stages of land use planning and foster shared understanding with Indigenous partners

Further actions and commitments to be detailed in regional and business area Climate Action Plans by March 2022.

Goals, Objectives, and Outcomes

The following goals and objectives for effectively responding to the uncertainty and impacts of climate change will guide the ministry's climate change adaptation and mitigation actions, priorities, and investments for the next five years and beyond:

Goal 1

The BC Ministry of Forests is a leader on climate change mitigation and adaptation and climate action is prioritized as a core part of daily business

⇨ Objective 1—Climate change adaptation and mitigation are a leadership and organizational priority

Strategic Actions

- Business area and regional Climate Action Plans are updated, and integration of climate change mitigation and adaptation into business and work planning processes is prioritized and regularly communicated
- Climate change is integrated into updates of Legislation, Regulation, Policy, and Procedures, including: Land-Use planning, the update to the Forest and Range Practices Act, Lands Act, Range Act, Water Sustainability Act, Forests Act, Cumulative Effects Assessment, Collaborative Stewardship, Together for Wildlife and other relevant legislative and policy frameworks
- Climate Action Plan implementation and accomplishments, and the effectiveness of legislation, policy, procedures, and land management are monitored and reviewed regularly
- Climate change-related responsibilities are included in staff performance plans

Outcomes

- Decision-makers and staff view business decisions through climate change adaptation and emissions mitigation lenses
- Legislation, Policy, and Procedures include considerations of climate change impacts, adaptation measures, and mitigation opportunities
- Climate change responsibilities are tracked and monitored through staff performance planning

⇨ Objective 2—New and emerging climate-related opportunities are identified, explored, and adopted

Strategic Actions

- Transformation and revitalization of the resource sector includes identification, assessment, and implementation of new opportunities related to climate change
- Further develop the B.C. forest bio-economy to increase the use of forest biomass in long lived products for ongoing carbon storage

Outcomes

- B.C. benefits from climate-related opportunities such as increased carbon storage and forest resilience from climatically adapted forest regeneration, emergence of new ecosystems or changed ranges of ecosystems, longer growing seasons, and programs like the Forest Carbon Initiative
- Increased fibre utilization and maximized use of forest biomass, new products such as cellulosic filaments, and creation of products that displace petrochemical based materials currently in use

Goal 2

Climate risks and impacts are better understood, communicated, and effectively managed

⇨ Objective 3—The ministry generates and effectively communicates leading climate change data, science, and expertise

Strategic Actions

- Investment in B.C.-specific data, climate change science, monitoring and modelling of natural resources, and supports and guidance for decision-makers
- Climate change adaptation and mitigation knowledge, including Indigenous Knowledge, among staff is resourced, supported, effectively shared and communicated, and integrated into ministry daily business
- Relationships with key external partners (e.g. Canadian Council of Forest Ministers) are identified, initiated, and maintained to support climate science and knowledge advancement

Outcomes

- Decision-makers and ministry staff have the information they need to better understand the severity of climate change and its projected implications and use the best available climate data and science to identify and evaluate social, economic and environmental impacts, risks, gaps and opportunities and prioritize actions
- The BC Ministry of Forests builds and maintains external relationships as a key contributor and supporter of climate science and knowledge advancement

⇨ Objective 4—Climate change adaptation and mitigation are a core element of decision-making and land management processes

Strategic Actions

- Development of guidance and decision support tools on integrating climate change mitigation and adaptation lenses into business processes and decision-making
- Policy and operational decision-making processes include consideration of climate change impacts and opportunities for emissions reduction and carbon storage
- Economic analyses include projected climate change impacts, potential resilience measures, and the effects of uncertainty on project objectives

Outcomes

- Decision makers and policy developers integrate climate change mitigation and adaptation into statutory decision-making, resource allocations, and field assessment frameworks where legislative and policy frameworks allow
- Natural, social, cultural, and heritage values are managed to account for and reduce the impacts of climate change and maintain or enhance resilience of the land base

⇨ Objective 5— Understand and take action to reduce risk from extreme natural events exacerbated by climate change

Strategic Actions

- Use a risk-based approach and the UN Sendai Framework for Disaster Risk Reduction to identify, assess, and reduce impacts from natural hazards using all available data and information
- Data and information on climate related risks is collected, assessed, compiled, and communicated with external partners and the public

Outcomes

- The BC Ministry of Forests is prepared for extreme natural events that are exacerbated by climate change such as wildfires, floods, drought, insect outbreaks and invasive species
- Ecological, economic, public safety, and societal risks are better understood and impacts are minimized

Goal 3

Transformation and revitalization of the natural resource sector are better informed by continuously engaging Indigenous Peoples and external partners in climate change mitigation and adaptation initiatives

⇨ Objective 6—Better-informed climate policy and ministry operations through collaboration with Indigenous peoples and external partners

Strategic Actions

- Build the capacity of the Ministry of Forests to understand and consider Indigenous Knowledge in decision-making, policy, research, ministry processes and operations, and climate change mitigation and adaptation
- Collaboration and engagement with external partners, academia, the public, and other ministries and levels of government to advance climate change adaptation and contribute to government-wide initiatives, such as the BC Climate Preparedness and Adaptation Strategy and CleanBC
- Continuously engage Indigenous peoples, including Indigenous youth and elders, in climate mitigation and adaptation programs and initiatives

Outcomes

- Co-create and build lasting partnerships with Indigenous peoples
- Enduring project outcomes and creation of resilient and healthy communities and ecosystems resulting from co-operative, collaborative approaches to making decisions on the land base and integrating Indigenous Knowledge into climate change mitigation and adaptation initiatives
- Transparency and clarity in decision-making ensures external partners, Indigenous peoples, and the public are confident that climate change is a core element of resource management decisions
- Consideration and respect for Indigenous Knowledge and the 'Everything is One' philosophy in all aspects of climate change work

Implementation and Monitoring

The Climate Change and Integrated Planning Branch is responsible for coordinating the Ministry's response to climate change and will provide advice, guidance and tools to assist in delivery.

Leadership teams will ensure delivery across divisions and regions. As part of Strategy delivery, regions and business areas are expected to update and refresh their Climate Action Plans and associated implementation plans. Delivery and progress will be monitored and reported on annually.

The 2021–2025 Climate Change Strategy will be reviewed and updated periodically.

For more information, email: FOR.ClimateAdapt@gov.bc.ca or visit:
https://www2.gov.B.C.ca/gov/content/environment/natural-resource-stewardship/natural-resources-climate-change