

From Flood Risk to Resilience: a B.C. Flood Strategy to 2035

The B.C. Flood Strategy (the Strategy) aims to achieve several goals, including reducing the impact of flooding, promoting sustainable growth and prosperity, safeguarding cultural assets, and enhancing our environment for the collective wellbeing. Through a phased implementation approach, the Strategy aims to future-proof the Province's ability to respond to flood emergencies, ensure infrastructure resilience, preserve land and water for future generations, prioritize co-benefits and ecosystem services, and enhance public safety.

The Strategy is framed as an "all-of-society" approach to flood resilience in alignment with the UN Sendai Framework for Disaster Risk Reduction (the Sendai Framework). This approach proactively addresses priority risks across the province and extends targeted supports to First Nations and local governments who can plan and manage for their risks locally and in the context of their neighbouring communities. The core themes of the new Strategy include understanding flood risk, strengthening flood risk governance, enhancing flood preparedness, response, and recovery, and investing in flood resilience.



Indigenous Peoples and Flooding: A Commitment to Partnership

The Province acknowledges rights recognition, self-determination, and partnerships with Indigenous peoples; and is committed to alignment of laws with the UN Declaration on the Rights of Indigenous Peoples Act (the UN Declaration). This Strategy particularly emphasises Articles 19 (free, prior, informed consent), 27 (fair, independent, impartial, and transparent processes), and 29 (conservation and protection of the environment).

Recognizing the significance of water bodies in First Nations worldviews, and their traditional stewardship of land and resources, it is crucial to acknowledge the historical decisions related to flood management and land use have put many First Nation communities at a loss. To advance reconciliation, it is essential to integrate the needs, values, and worldviews of First Nations into flood management strategies. Early and continuous engagement with Indigenous communities has been instrumental in shaping this Strategy, ensuring that their voices are honored and incorporated throughout this report.

**"When we take care of the land and water,
the land and water take care of us."**

-siwłk^w (water) Declaration

The current mandates of the provincial government, reflected in B.C.'s new *Emergency and Disaster Management Act*, prioritize preparing for climate change impacts, enhancing crisis response capabilities, and fostering meaningful reconciliation with Indigenous peoples. The following focus areas form the rationale for the B.C. Flood Strategy.

Climate change heightens flood risks, prompting the need for increased provincial action on flood management. Indigenous reconciliation involves addressing disproportionate flood impacts on First Nations communities, aligning with the [*Declaration on the Rights of Indigenous Peoples Act*](#) (the Declaration Act). A proactive approach to flood preparedness, using integrated flood management planning, fostering relationships and emphasizing stewardship, is needed.

To ensure transparency and keep stakeholders and the public well-informed about the B.C. Flood Strategy and Resilience Plan, the Province will provide updates through online materials.

Acknowledgements

The B.C. Flood Strategy team acknowledges the time and effort contributed by all those involved in the development of the B.C. Flood Strategy. Special appreciation goes to our 'Sharing the Pen' team and Indigenous-led engagement planners for their dedicated collaboration. The Sharing the Pen team is a collective of First Nations participants representing B.C.'s distinct language families and major watersheds. The intent is to draft the Strategy in a "good way" to align with the Declaration Act.

Vision

Together, we are leaders in innovative, holistic flood risk management, enhancing B.C.'s flood resilience for the 21st century.

Environmental Sustainability

A flood-resilient future for B.C. requires nurturing our natural environments like floodplains, river corridors, and coastal ecosystems through nature-based solutions, which also support habitat health, clean water, and community well-being, emphasizing the importance of balancing flood protection with the preservation of natural areas, particularly B.C.'s watersheds, guided by Indigenous knowledge for sustainable decision-making and reconciliation.

Enhanced Public Safety

Applying the Sendai Framework, with a Gender-Based Analysis+ (GBA+) lens, enhances public safety by reducing collective risks and addressing vulnerabilities of communities, including Indigenous peoples in flood-prone areas, with a particular focus on ensuring equity is considered for diverse groups, especially vulnerable populations during evacuation processes for enhanced community safety.

Economic Stability

Investing in flood-resilient solutions, including engineering practices, regulations, compliance, and nature-based infrastructure projects, is crucial for ensuring economic stability, disaster mitigation, and property protection at provincial and local levels, supported by funding programs from both provincial and federal governments.



Principles for Strategic Flood Resilience

The following principles provide high-level guidance for flood resilience initiatives across multiple jurisdictions. They reflect the lived experiences of community members within the province and influenced by various sources, form the foundation for any flood resilience initiative in B.C. They encompass a Holistic, Proactive, Place-Based, Accountable, Collaborative, Transparent, Fair and Risk-Informed approach. Widely acknowledged, these principles lay the foundation for successful strategic flood resilience in the province.



The following introduces each of the four pathways and 25 actions that make up the comprehensive Strategy for shifting from flood risk to resilience between now and 2035. A Flood Resilience Plan will be developed collaboratively to determine how the Strategy will be implemented in phases, with the initial priority being “understanding flood risk”.

Pathway 1: Understanding Flood Risk



Action 1.1: Develop a provincially coordinated floodplain mapping program

The Province will explore how to establish a multi-year floodplain mapping program for enhanced communication of flood risk, ensuring accessibility for all.

Action 1.2: Conduct a province-wide flood risk assessment

Conduct a Provincial Flood Risk Assessment aligned with the Disaster and Climate Risk and Resiliency Assessment (DCRRA), establishing a common understanding of key risks, including flood.

Action 1.3: Raise awareness of flood risks with a human-centered approach

Develop a flood education approach in collaboration with diverse stakeholders, prioritizing public outreach and iterative learning to raise awareness about flood risks and preparedness.

Action 1.4: Build capacity and support for applied research and enhanced training

Conduct a gap analysis to identify qualified professionals to support flood resilience, with a focus on recognizing the validity of Indigenous and intergenerational knowledge in education and accreditation programs, ensuring equitable recognition for First Nations programs.

Pathway 2: Strengthening Flood Risk Governance



Action 2.1: Set a new direction for B.C.'s flood governance model

The Province, in collaboration with Advisory Circles, will establish a flood governance model aligning with the Sendai Framework and UN Declaration commitments, supporting the Strategy's Vision and Principles.

Action 2.2: Establish a First Nations Flood Resilience Advisory Circle

Establish a B.C. First Nations Flood Resilience Advisory Circle, consisting of First Nations delegates from across B.C.'s major watersheds, to advise the Province on strengthening flood governance while respecting First Nations' Rights and Title.

Action 2.3: Establish a Minister's Flood Resilience Advisory Circle

Convene a Minister's Flood Resilience Advisory Circle, partnering with the First Nations' Advisory Circle. It involves various government levels, including federal, provincial, Indigenous governing bodies, and local agencies, providing advice on funding, governance, and policy updates.

Action 2.4: Promote integrated flood management planning

Promote holistic community-based integrated flood management planning to reduce flood risk economically, socially, and environmentally. This approach, supported by the Province, involves community engagement, transparent actions, and foundational investments, contributing to a cohesive and effective strategy.

Action 2.5: Build cross-jurisdictional and international collaboration for flood resilience

This Strategy emphasizes the flexibility of integrated flood management planning, encouraging a watershed perspective. Existing forums will be utilized for developing wise practices for regional planning, promoting international coordination for meaningful transboundary initiatives aligned with shared values.

Action 2.6: Update provincial legislation, regulations, and policies

Initiate a review and update of provincial flood management legislation and regulations, consulting and cooperating with First Nations in alignment with the Declaration Act, to align with modern values, increasing risks, and liabilities.

Action 2.7: Update provincial technical guidance

Improve accessibility and utility of information by updating guidelines and templates, collaborating with First Nations and local authorities. Periodically review and update risk-informed approaches, including nature-based solutions, in flood infrastructure, planning, design, and construction practices.

Action 2.8: Strengthen dike regulatory programs

Propose a comprehensive dike regulatory program in B.C. to reduce flood risk, applying a locally led integrated flood management approach, enhancing coordination among diking authorities and different levels of government.

Action 2.9: Develop a provincially coordinated approach to orphan dikes

Develop a provincially coordinated approach, involving First Nations, local governments, regional stakeholders, and provincial partners to address challenges related to orphan dikes, considering multiple perspectives, evaluating impacts, and maximizing benefits.

Action 2.10: Enhance forestry practices to mitigate flood risk

Transition to Forest Landscape Planning to manage forest resource values, addressing climate change, environmental impacts, and cumulative effects in collaboration with First Nations, licensees, stakeholders, local communities, and the public. B.C.'s Chief Forester will establish Forest Landscape Plans in consultation and cooperation with Indigenous communities.

Pathway 3: Enhancing Flood Preparedness, Response, and Recovery



Action 3.1: Enhance flood forecasting and early warning systems

Continuously improve flood modelling by integrating the latest scientific knowledge into operational river forecasts. This requires a well-equipped and knowledgeable team at the River Forecast Centre, fostering collaboration across agencies.

Action 3.2: Enhance flood preparedness through the Provincial Flood Emergency Response Plan

Update the Provincial Flood Emergency Plan to coordinate mitigation, preparedness, response, and recovery efforts among governments and First Nations. Clarify roles before, during, and after flood events, considering geographical differences in flood risks, with a primary focus on creating effective plans for resilience.

Action 3.3: Enhance flood emergency response activities

Coordinate prompt, well-synchronized responses to flood, emphasizing collaboration between First Nations, local governments, and provincial and federal efforts. Introduce cross-cultural competency training emphasizing consultation and with Indigenous governing bodies in land-based response and recovery actions.

Action 3.4: Enhance pre- and post-disaster flood recovery planning

Under the *Emergency and Disaster Management Act*, prepare comprehensive plans covering all emergency management phases, integrating available Indigenous knowledge and prioritizing cultural safety. Assist communities in resilient, culturally safe rebuilding post-disaster, promoting collaborative community-based integrated flood management planning. Engage in pre-disaster planning to support timely and effective adaptation decisions post-flood, considering environmental issues, community values, and future land use in risk prone areas.

Pathway 4: Investing for Flood Resilience



Action 4.1: Develop predictable funding programs

Establish ongoing tailored funding programs for hazard risk mitigation, including flood, emphasizing equity and accessibility. Collaboration with the federal government, cost-sharing across sectors and levels of government, and coordination with other agencies will be explored to support communities implementing flood resilience efforts.

Action 4.2: Enhance flood avoidance investments

Work with partners to explore flood avoidance strategies, considering the long-term implications of development and land use decisions in flood-prone areas.

Action 4.3: Enhance flood accommodation investments

Explore expanding funding program coverage to support flood accommodation measures, particularly in communities where relocation is not an option.

Action 4.4: Enhance flood protection investments

Recognizing the need for flood protection measures, the Province will promote nature-based solutions alongside grey infrastructure, offering multiple benefits, including improved biodiversity, conservation and restoration of fish habitat, carbon sequestration, social wellbeing, and tourism.

Action 4.5: Enhance community-led managed retreat investments

Give consideration to the role of community-led managed retreat involving the relocation of people and infrastructure from hazard prone areas to reduce future risks when updating regulations for financial assistance after emergencies and disasters.

Action 4.6: Address First Nations loss of land

Collaborate with the federal government to implement measures addressing First Nations loss of lands due to flooding, based on identified needs.

Action 4.7: Coordinate investments for floodplain management

To advance floodplain management and water conservation goals, the Province will align provincial funding with federal programs, including initiatives such as the Watershed Security Strategy and Fund, B.C.'s Salmon Restoration and Innovation Fund, and funding associated with Canada's National Adaptation Strategy.