

# $RiskIntel_{^{\text{\tiny TM}}}$

## Flood Preparedness and Recovery Guide

According to the <u>Institute for Catastrophic Loss Reduction (ICLR)</u>, flooding is the most common weather hazard individuals and businesses will face. Flooding is also the costliest hazard in terms of property damage, profoundly affecting households, businesses, and communities. Floods can occur in any region of the country and be triggered by a multitude of events, including heavy rainfall, snowmelt runoff, ice jams, and coastal storms. Floods are generally categorized into one of three forms: fluvial floods, pluvial floods, or coastal floods.



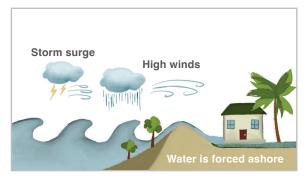
#### Fluvial floods

Fluvial floods occur when a river channel becomes overwhelmed with water, resulting in the flooding of land adjacent to its natural banks. This type of flooding is most frequently seen in early Spring and is driven by factors such as heavy rainfall, melting snow, and physical conditions such as ice and debris blockages.



#### **Pluvial floods**

Pluvial floods occur when extreme rainfall leads to surface flooding, independent of any overflowing body of water. Pluvial flooding can happen anywhere, including urban environments where the sheer volume of rain can exceed the capacity of municipal drainage systems, resulting in overland flooding onto streets and into nearby structures.



#### **Coastal floods**

Coastal floods occur when seawater inundates low-lying coastal land. It is usually caused by intense windstorms (e.g., hurricanes) that create storm surges. The intensity of a coastal flood is influenced by the strength, size, speed, and direction of the windstorm. Coastal flooding can also be caused by tsunamis.

According to the <u>Insurance Bureau of Canada</u>, floods have generated an average of nearly \$800 million in insured losses per year over the last decade, with the following notable events:

- In August 2024, the remnants of Hurricane Debby brought record-breaking floods to Quebec, inundating 55 communities, including Montreal.
- In July of 2024, nearly 10 centimetres of rain fell in Toronto in three hours, overwhelming the city's infrastructure and flooding many homes and businesses.
- In November of 2021, an atmospheric river unleashed record-breaking rain in British Columbia, triggering landslides and floods that caused extensive damage, cutting off main access routes to several areas of the province, and severely impairing the economy.



Photo: British Columbia flooding in November of 2021.

With the escalating effects of climate change, Canadians will experience a notable rise in both the frequency and intensity of flood events. Rising temperatures driven by increased concentrations of greenhouse gases allow air to retain more moisture, resulting in heavier rainfall and stronger storms. This, combined with melting snowpacks, increasing sea levels, and shifting weather patterns, has paved the way for more extreme and unpredictable flooding.

For business owners specifically, floods pose risks to physical assets, business continuity, as well as staff and customer safety. It is imperative for business owners to be proactive in their flood preparedness and recovery strategies. This guide is intended to provide business owners with strategies that should be implemented before, during, and after a flood takes place.

### Flood Preparation

The following measures should be taken to mitigate potential damages and ease the stress and burdens associated with last-minute preparations:

Look up your property on your local flood and storm surge map by contacting your municipal government to understand your risk.
Establish a team responsible for developing and implementing a business continuity plan.
Ensure that you have comprehensive emergency preparedness and response plans established, specifically incorporating procedures for flood events.
Offer thorough training for all staff involved in building operations regarding flood event procedures. Schedule annual drills to practice these protocols and routinely assess all procedures to ensure they remain relevant and up to date.
Conduct a risk assessment to understand vulnerabilities, critical assets, and processes that could be affected during a flood.
Review your insurance details, understanding what is covered and what is excluded. List your stock and equipment, and capture images of your property that showcase the buildings and equipment.
Establish documented procedures to shut down equipment that may be affected by a flood.
Elevate critical assets susceptible to water damage off the floor or relocate them to higher floors, if available.
Compile a list of emergency contacts, including the fire service, police department, and utility companies.
Establish guidelines and communication strategies for staff and clients prior to, throughout, and following a flood.
Establish an off-site IT data backup and recovery system or leverage a cloud-based solution.
Explore alternative facilities that your business can utilize if the main location becomes unavailable.

	Establish agreements with local suppliers and vendors for prompt delivery of protective materials when needed (e.g., portable flood barriers, sandbags, submersible pumps, portable generators, dehumidifiers, air moisture sensors, etc.).			
	Apply sealant around basement windows and ground-level door assemblies.			
	Add window wells and covers to windows that are near or below ground level.			
	Consider installing a sump pump and backflow preventer in basement areas.			
Impending Flood Preparation				
When a flood is forecasted to occur, the following actions should be taken to help reduce damage to your business property:				
	Keep lines of communication open to receive weather alerts. Have at least three methods for receiving weather alerts (e.g., radio, phone alerts, local television, weather apps, social media, etc.).			
	Activate business continuity plan, and communicate the plan to staff.			
	Relocate critical assets and any materials susceptible to flood damage (i.e., electronics, vital business records, perishable stock, etc.) above forecasted flood levels, preferably to an upper floor.			
	Follow the documented procedures to shut down equipment that may be affected by the flood.			
	Protect basement windows, ground-level floors, and any other on-grade openings from flooding and debris damage (e.g., portable flood barriers, sandbags, etc.).			
	Relocate outdoor items that can be swept away by flood waters (e.g., patio furniture, portable signs, planters, etc.) inside the building. Large or heavy items that cannot be moved indoors should be anchored in place.			
	Shut down production processes, turning off power to non-critical equipment and machinery.			
	Critical equipment such as fire alarms, fire pumps, and sump pumps should remain operational and connected to an emergency generator, if available.			
	Fill up fuel tanks for emergency generators and fire pumps.			
	Shut down any incoming natural gas or propane lines at the point of building entry.			
	If authorities instruct you to evacuate, do so without delay. Ensure that all employees are informed about evacuation details.			
Flood Recovery				
Returning to your business property after a flood can be an overwhelming experience. The steps outlined below will help you navigate the situation safely and effectively:				
	First and foremost, ensure all staff are safe and accounted for.			
	Do not enter damaged buildings without their structural integrity being thoroughly evaluated.			
	Stay clear of downed power lines, as they may be energized. Notify local utility companies if you encounter downed power lines or gas leaks.			
	Document damage to your property and take photos and videos of damaged equipment and stock.			

Contact your Broker and/or your insurance company. Be prepared to share essential details such as your contact information, policy number, date the damage occurred, and a description of the damage. Complete and return any requested claim forms as soon as possible.
If water has inundated the building's interior, remove water from the premises as soon as possible to reduce damage and contamination. Activate any available dehumidifiers and submersible pumps as soon as possible to avoid the onset of mould.
Ensure that all electrical systems and any fuel-fired equipment are inspected by licensed contractors prior to reactivation.
Remove and dispose of any building materials (e.g., drywall, insulation, etc.) and unsalvageable furnishings that have come in contact with water, in accordance with local regulations.
Obtain a 24-hour security service, if deemed necessary.
Provide regular status updates on business operations to staff, customers, and suppliers via phone calls, emails, company website, intranet, and/or social media.
Maintain regular contact with contractors until all necessary repairs are completed.
Keep records and receipts for all additional expenses in the event the business needs to be relocated. Establish an electronic file for this information in a cloud-based program, allowing for convenient access from any location.

#### References

Canadian Climate Institute | Climate Change and Floods Fact Sheet, September 2024 <a href="https://climateinstitute.ca/wp-content/uploads/2024/09/Fact-sheet">https://climateinstitute.ca/wp-content/uploads/2024/09/Fact-sheet</a> -Floods CanadianClimateInstitute.pdf

Canadian Red Cross | Floods

https://www.redcross.ca/how-we-help/emergencies-and-disasters-in-canada/types-of-emergencies/floods

Government of Canada, Public Safety Canada | Floods, What to Do? https://publications.gc.ca/collections/collection 2008/ps-sp/PS48-9-1-2008E.pdf

Government of Canada | National Risk Profile: A national emergency preparedness and awareness tool, May 2023 <a href="https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/2023-nrp-pnr/2023-nrp-pnr-en.pdf">https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/2023-nrp-pnr/2023-nrp-pnr-en.pdf</a>

Institute for Catastrophic Loss Reduction | Flooding <a href="https://www.iclr.org/flooding/">https://www.iclr.org/flooding/</a>

The Geneva Association | Flood Risk Management in Canada: Building flood resilience in a changing climate, December 2020

https://www.genevaassociation.org/sites/default/files/frm canada web.pdf

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