

# MIND your business



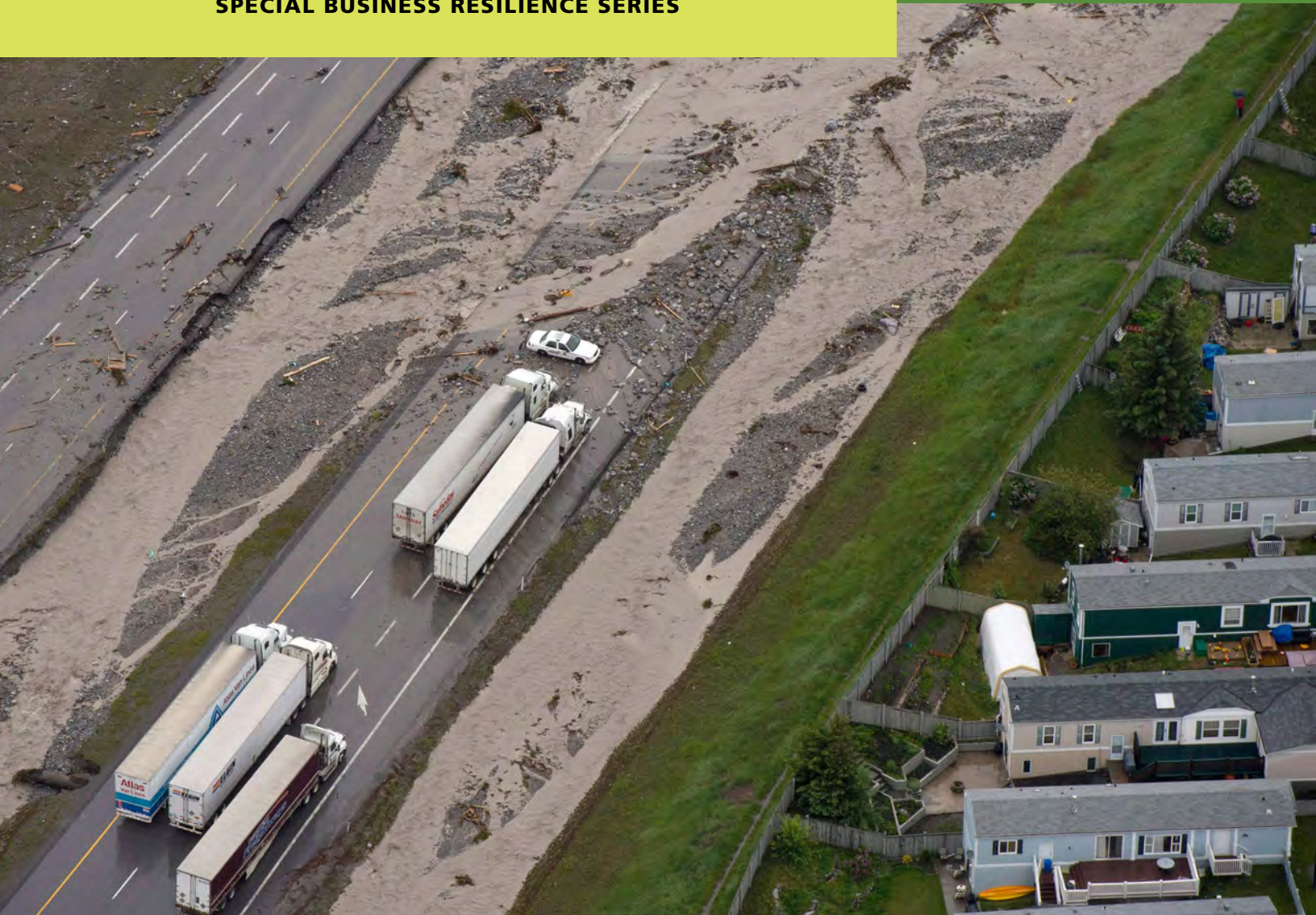
Institute for Catastrophic  
Loss Reduction

Building resilient communities

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**SPECIAL BUSINESS RESILIENCE SERIES**



## Severe weather events and climate change: Business interruption

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# What to know about interruptions to your business operations and how insurance can play a role in recovery

In today's fast-paced world, having a business that is well risk managed is necessary for an effective and smooth post loss recovery. Dependence on incoming supplies and outgoing product delivery and quality are key drivers in a company's value chain. Your location and logistics as well as your facilities layout can make the difference between a short or a long-term outage in the event of a natural hazard event loss. Business interruption (BI) insurance does not always cover revenue loss and, therefore, having strong knowledge of your risks, a plan and procedures to reduce those risks, and a robust recovery plan are the best actions you can take to protect your value chain.

## Important points about BI Insurance

- A business interruption insurance policy will normally cover business revenue earned from a specific location. The BI policy may have a monetary deductible or, in some cases, a deductible may be set in days outage (often one to five days). Canadian policies typically have a one-year indemnity period but could have an indemnity period of up to three years. To better understand your business interruption coverage, engage your broker and/or insurance carrier for details. It is a good idea to think of some possible scenarios of loss and see if/how they may be covered.
- Policies typically require that damage to the insured's property from an insured peril be the cause of the interruption. As such if there were to be a flood near your business location and you were unable to deliver your product or receive supplies but did not experience physical damage to your property, your business interruption policy may not be activated. Examples of generally uninsurable perils in Canada can include landslide/subsidence and permafrost melt.

- Typically, business interruption coverage amounts are miscalculated by businesses, which often leads to under insurance in the event of a loss. Though this can differ from insurer to insurer, since 2002, on average, only about half of physical damage policies with a loss have had the business interruption portion of the policy invoked. For commercial policies, when a total loss nears \$10-\$12 million (Physical Damage & Business Interruption), the split of physical damage loss to business interruption is usually closer to 50/50. As the loss exceeds \$10-\$12 million, the business interruption loss amount grows exponentially larger than the property damage amount. In 2005, Suncor Energy Inc. experience a major fire at one of its oil-sands facilities in Alberta. Total insured damage reached about \$1.2 billion with \$980 million being for business interruption, one of the largest losses of its kind in Canada.

Oilsands workers are evacuated during the 2016 wildfire in Fort McMurray, AB. Due to sound risk management practices, oil sands facilities were largely physically untouched by fire. However operations had to be shut down because employees were unable to attend work.

Source: Jason Woodhead, Wikimedia Commons. See [licence](#).





The only land link to Churchill, Manitoba, a rail line that ran through remote boggy terrain, was flooded and heavily damaged in 2017, requiring that all supplies be flown into the remote northern community for more than one year.

The November 2021 atmospheric river-related flooding in southwestern British Columbia cut off the Port of Vancouver, Canada's busiest port, from the rest of Canada as rail lines and several highways were washed out by torrential rains and rock/mudslides. Rail service, which moves more than two-thirds of freight coming into the port – about CAD700 million a day – was down for eight days, impacting supply lines throughout the country.

### Knowing your critical infrastructure and whether it is protected

Insurance carriers will want to ensure you understand the various risks facing your business. Infrastructure for your business may include utilities like electricity and natural gas, or process gas/liquids involving exterior tank storage as well as incoming and exiting roads, marine facilities, rail, etc.

- Do you have control over your external transformer or is it the responsibility of the utility provider? Is it located on a flood plain or is it unprotected from a wildfire or mud/rockslide? How long would it take to replace? Do you have back-up generators installed and can they provide the required output for your operations? If diesel powered, do you maintain the appropriate fuel level? Do you have a formal agreement with a fuel provider or portable generation company?
- For exterior tank storage (liquid and gas), are they exposed to lightning strike and if so, are they protected and properly grounded? Are they protected from spills as well as flood waters? Do you have shutdown procedures for hazardous liquids/gas?
- How are supplies and products entering and leaving the location? If by rail, are the lines exposed to flood waters? Rail lines can warp with rapid heating and cooling. In wildfire prone regions, is there an alternative to rail if it is your dominant transportation method?
- If you have assessed that your location is prone to outages due to natural hazard events, have you planned to have additional stock on-hand to allow production to continue?
- Of your critical infrastructure, is any equipment located in the basement/below grade or on a ground floor and exposed to a flood loss?

### What are the common severe weather events and natural hazards exposures at your location?

Understanding the exposure to severe weather events and natural hazard risks to your location helps you better understand the threat of loss and what those events might look like, thus allowing for a faster recovery. You should also consider your transportation infrastructure and its exposure to severe weather and natural hazard risks.

- **Flood:** Can cause damage to building infrastructure and services as well as affect transportation infrastructure.
- **Lightning and wildfires:** Lightning can cause a wildfire as well as other property fires and also cause damage related to electronic and digital assets due to power surges. While it may be possible to protect your location from a wildfire, transportation infrastructure may be compromised. In addition, some services to your location (electrical) may be impacted upstream from your location, and can cause a non-damage loss to revenue.
- **Windstorms:** Tornadoes and hurricanes are more frequent in some Canadian regions than others. When the building envelope is compromised (e.g., when there is roof damage), there can be a total loss to the location or conditions that do not allow operations to continue.
- **Winter Storms:** Very common in most of Canada, winter storms can bring both heavy snow loads and/or icy transportation conditions. Roof collapse from snow loading or ice buildup can take several weeks/months to repair and operations may cease at the location.

## How do you protect your business revenue beyond risk transfer?

Methods to protect your business revenue from severe weather and other natural hazard events are constantly evolving and improving. Data gathering and analysis allows for predictive modeling indicating the potential location and severity of events. In addition, when each event occurs, businesses now often have access to critical information that allows them to measure any plan they may have against real events (i.e., would our plan have worked?). Helping to reduce the risk of loss will not only make your organization more resilient but will also better complement the risk transfer protection provided by insurance.

Your broker or insurer may be able to help with modelling and data analysis to help you better understand the risks your business may experience and how best to mitigate them.

## The step-by-step process to start better protecting your business income and plan for a quick recovery

The hardest part of the process to protect your business revenue is getting started and knowing which steps should be part of the process. While there are various events that can cause a loss to business income (such as a terrorist attack or cyber incident), it is good to focus on one sector at a time, such as with severe weather and natural hazards. Climate change may also play a part in the risk analysis related to severe weather and natural hazard risks. However, it is suggested that you conduct a separate risk analysis to quantify the impacts of climate change to the business as such an analysis tends to be more forward looking at future risks and how current severity and/or frequency of severe weather may change.

1. **Understand your current business interruption coverage so you can start assessing where the gaps exist.**
  - a. What events can trigger your business interruption insurance, and can your coverage be triggered without a physical damage loss?
  - b. What are your coverage limits, deductibles, and indemnity period? Have you calculated the appropriate BI values for adequate coverage? Do you have extra expense coverage to help fund quick changes to get at least part of the business back in operation?

## Business interruption coverages

**Business Interruption (BI):**  
Can provide coverage for loss of income due to an insured peril and may also cover additional expenses needed for the business to recover, both depending on the insurer and the policy purchased.



**Contingent Business Interruption (CBI) or Contingent Time Element (CTE):** Can provide coverage for loss of income resulting from a physical loss of (or damage to) a first tier supplier or customer's operations or property.

**Off-Premises Power (aka : Off-Premise Utility Services Interruption or Utility Service Interruption Coverage):**  
Can provide coverage for property damage and income loss from a covered peril due to utility failure that occurs away (or off of) the insured's property.

2. **Compare the knowledge you have of the critical infrastructure serving your business to potential gaps in your current insurance coverage.**
  - a. Be honest with your assessment of critical infrastructure recovery. Assuming a faster, easier recovery than may be realistic may not provide results that are adequate.
  - b. When possible, use external experts to help guide the process and record/register results.
  - c. Focus on the gaps at this stage, not the solutions. Implementing solutions without determining all gaps may cause some solutions to worsen unforeseen gaps.
3. **Using the knowledge gained through the gap analysis, you can then bring in the potential and known exposures associated with severe weather/natural hazard events.**
  - a. Begin with the known exposures, utilizing existing hazard mapping. External experts may have access to more detailed data and can provide additional insights.
  - b. Overlay the severe weather modeling/predictions. While the events themselves may not always grow in severity, they may grow in frequency. Both severity and frequency should be modeled and applied to the gap analysis.



At this stage you would have developed a registry of the expected risks to your location and recorded presumptive losses (again, external experts can help develop credible loss scenarios). In effect this is a portion of a total Business Impact Analysis (discussed further in a separate *Mind your business* bulletin titled *Severe weather events and climate change: Impact analysis and continuity planning*).

4. Review the full analysis and begin to collate events/scenarios that are similar or may be solved by a single solution. As you are conducting this exercise, also look to group in severity of loss and/or probability of occurrence. Some risks may fall into several collated buckets. External experts can help see the larger picture and keep the exercise on track and focused.
5. At this point a full document/registry should be developed and the process of seeking reasonable, reliable and effective solutions can start.
  - a. Solutions may include a change to the risk transfer product, physical protection from events or adding more alternative options to recovery.
  - b. Solutions should be prioritized by importance of their expected impact and protection but may be subject to shifting due to capital expenditure.
  - c. If a Business Continuity Plan exists, solutions should be incorporated and the plan updated as the solutions are completed (discussed further in a separate *Mind your business bulletin* titled *Severe weather events and climate change: Impact analysis and continuity planning*).

### **The impact of climate change, how it may affect your resilience in the future and how to manage the evolving risk**

With a basic structure in place to help manage your business resilience in the face of severe weather and natural hazard exposures, climate change will have some direct and evolving impacts.

1. The identified weather-related risks to your location will likely continue to be more severe and may also grow in frequency.

2. Increased severity and frequency could impact insurance carriers' appetite to provide coverage at an affordable rate or in a comprehensive way (coverage may be limited). This could result in the need to further improve risk reduction through loss control measures, which inevitably have a cost.
3. There may be impacts related to your farther-reaching supply chain (discussed further in a separate *Mind your business bulletin* titled *Severe weather and climate change: Supply chain ready?*). Migratory patterns and the forced movement of people may impact where supplies (including raw materials and component parts) will be produced. Climate change may also impact supply routes and availability of materials.
4. Long-term changes may impact the need for certain products or services in demand today, but may also open doors for new products and services that may be needed as a result of impacts from climate change. Seasonal demands for products may also change, as warm periods may be extended and cold periods shortened.

In order to manage the evolving risk, a regular process should be established to review the severe weather and natural hazard risks your business may be exposed to and how they have and will continue to evolve. Any risk reduction and recovery plan will require a consistent review methodology and will need to be reviewed often. Adapting to new risk and business changes may appear due to climate change-impacted events in other parts of the world.

Ultimately, the best way to combat business interruption exacerbated by climate risks is to develop, manage and maintain a well-structured impact analysis and be forward thinking about climate change impacts and how they may reverberate back to your organization. Utilizing digital solutions to help identify and manage your exposures can be key to having a resilient business interruption ready organization (discussed further in a separate *Mind your business bulletin* titled *Severe weather events and climate change: Digital solutions*).

Remember that the successful organization will be the one that understands the risks, protects against the severity/probability of loss and is the first "dog to the bowl" to secure what resources are necessary to recover first. This preserves business income as best as possible and can lead to capturing more market share if competitors are not as prepared.

Other publications in this series can be found at <https://www.iclr.org/commercial-insurer/>



## Institute for Catastrophic Loss Reduction

### Mission

To reduce the loss of life and property caused by severe weather and earthquakes through the identification and support of sustained actions that improve society's capacity to adapt to, anticipate, mitigate, withstand and recover from natural disasters.

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