

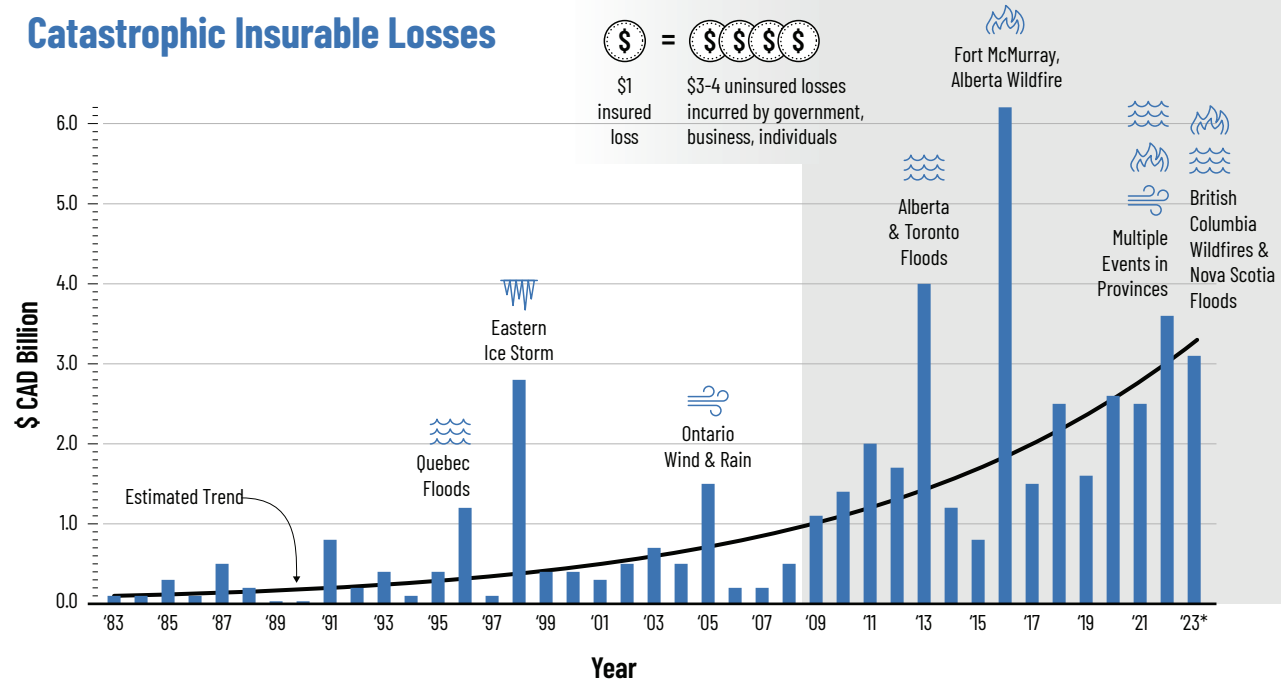
A FLOOD RISK CHECK-UP FOR CANADIAN MUNICIPALITIES: TACKLING FLOODING TOGETHER

Municipalities are on the frontlines of adapting to climate change impacts, including flooding. Reducing flood risk is in the interest of all parties that live and work in municipalities – residents, businesses, governments, and financial institutions. The **Municipal Flood Risk Check-Up** has been developed to support Canadian municipalities in better preparing for heavy rainfall, river, and coastal flooding.

Flooding is a Significant Cost to Canadian Municipalities and Their Residents

In terms of residential flooding, the cost of risk from intense rainfall flooding, river and coastal flooding, is estimated at \$2.9 billion per year. Since 2008, losses have surged and now regularly exceed \$2 billion per year, mostly due to water-related damage.

Costs of Extreme Weather: Catastrophic Insurable Losses



Source: IBC Facts Book, PCS, CatIQ, Swiss Re, Munich Re & Deloitte

*2023 preliminary values in 2023\$ CAD, corrected for inflation and per capita wealth accumulation.

Municipal Flood Risk Check-Up

The **Municipal Flood Risk Check-Up** is a free spreadsheet tool developed to support Canadian municipalities in preparing for heavy rainfall, river, and coastal flooding.

The self-assessment questionnaire has 3 sections with questions designed to assess potential flood exposure and flood preparedness.



Section I: Flood Hazard and Exposure
Identifying Potential Risks




Section II: Flood Preparedness
Analysing Risks




Section III: Flood Preparedness
Reducing Risks

Answers are analyzed and presented in three results worksheets.



Scorecard
Shows the responses to each question and calculates an average rating for each sub-section.

Sub-section	Question	Rating					Sub-Section Rating
A: Combined Flood Hazard	A1 History of Flooded Buildings and Infrastructure	High	Medium	Low	Unsure	N/A	High
	A2 Age of Development	High	Medium	Low	Unsure	N/A	
	A3 Vulnerable Populations	High	Medium	Low	Unsure	N/A	
B: Intense Rainfall / Sewer	B1 Surface Ponding	High	Medium	Low	Unsure	N/A	Medium
	B2 Impervious Surfaces	High	Medium	Low	Unsure	N/A	
	B3 Basement Flooding	High	Medium	Low	Unsure	N/A	
	B4 Sewer Design Type	High	Medium	Low	Unsure	N/A	



Web Diagrams
Results are visualized for quick assessment of flood risk exposure.







Overview
Ratings of flood exposure and flood preparedness are visualized.



1. Overall flood exposure
2. Flood preparedness - flood risk analysis and flooding mitigation measures
3. Matrix combining flood exposure and flood preparedness scores
4. Comparison of scores to the ideal level of preparedness

The check-up includes additional resources to support the users and further action to manage and reduce flood risk:



Supporting Information



Glossary



References

Supported by



Completion of the Municipal Flood Risk Check-Up is an excellent first step in the flood risk management journey. To make a significant change, municipalities will need to use the Check-Up to identify, prioritize and complete additional actions to understand, manage and reduce flood risk. For details, see the report and free tool on the Intact Centre on Climate Adaptation website.