



# Preparing for Rising Flood Risk in the Prairies: Action at Home and in Communities

May 12, 2026

ClimateWest 2026 Forum – Mainstreaming Climate Adaptation

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# As Temperatures Rise, So Do Extremes



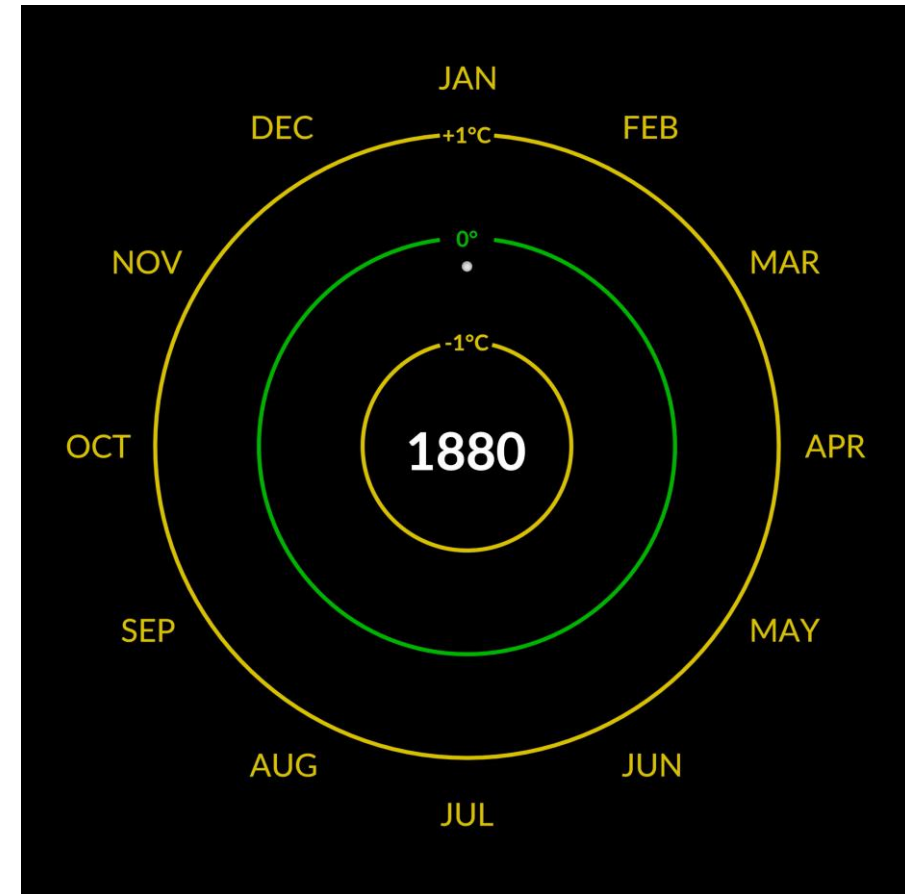
Since 1948, the average temperature in Canada has risen by approximately **2.0°C**.



This has contributed to **more frequent and severe extreme weather events**.

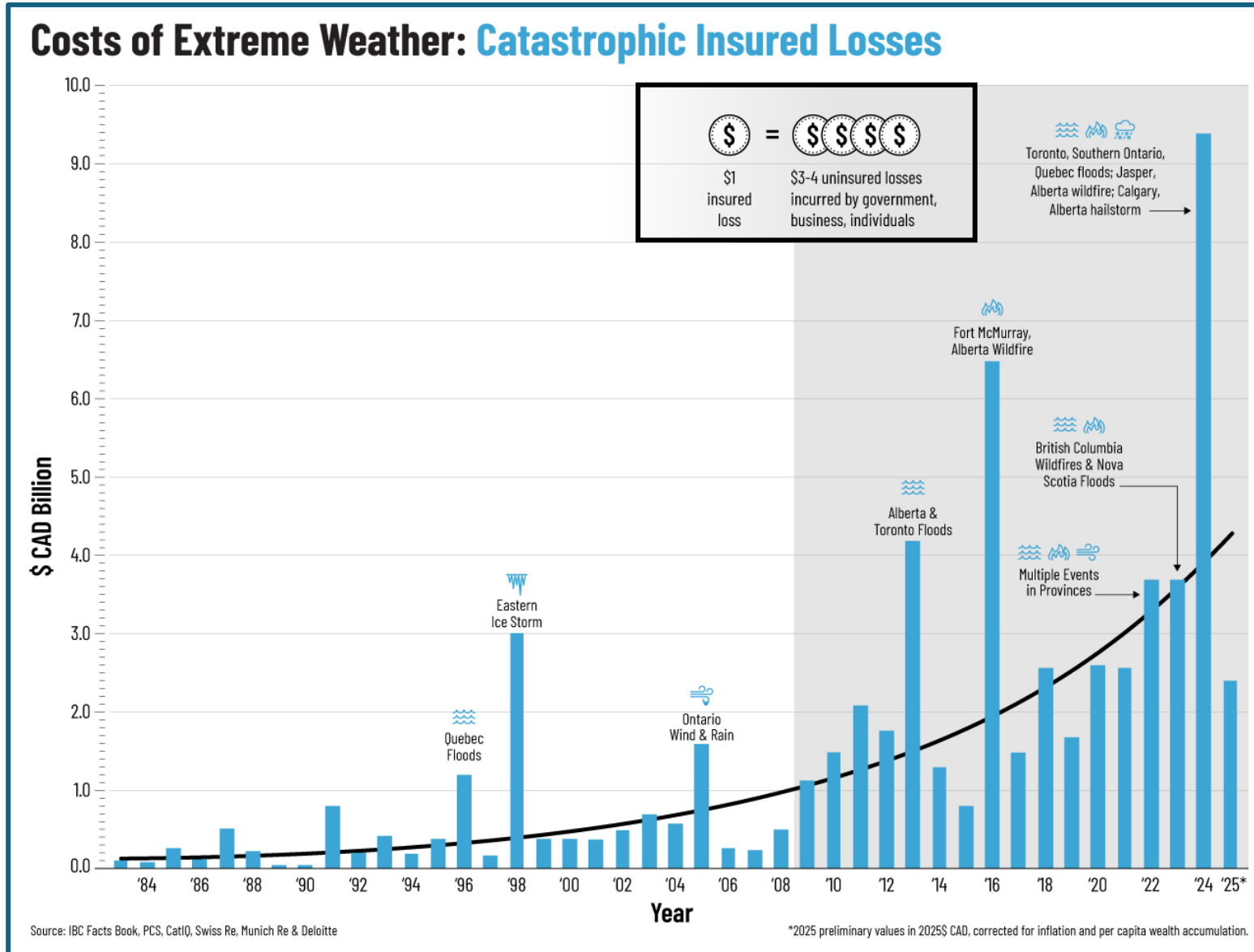


We must **urgently slow climate change** and **adapt to its impacts NOW**.



The visualization presents monthly global temperature anomalies. This visualization is updated roughly two weeks after the end of each month. Temperature anomalies are deviations from a long-term global average. In this case the period 1951-1980 is used to define the baseline for the anomaly. These temperatures are based on the GISS Surface. . Download this visualization from NASA Goddard's Scientific Visualization Studio: <https://svs.gsfc.nasa.gov/5190/>. Credit: NASA's Scientific Visualization Studio

# As Extreme Weather Increases, So Do Costs



# Impact of Flooding on Residential Housing

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**INTACT CENTRE**  
ON CLIMATE ADAPTATION

**Flooding Impact on House Price**  
**-8.2%**

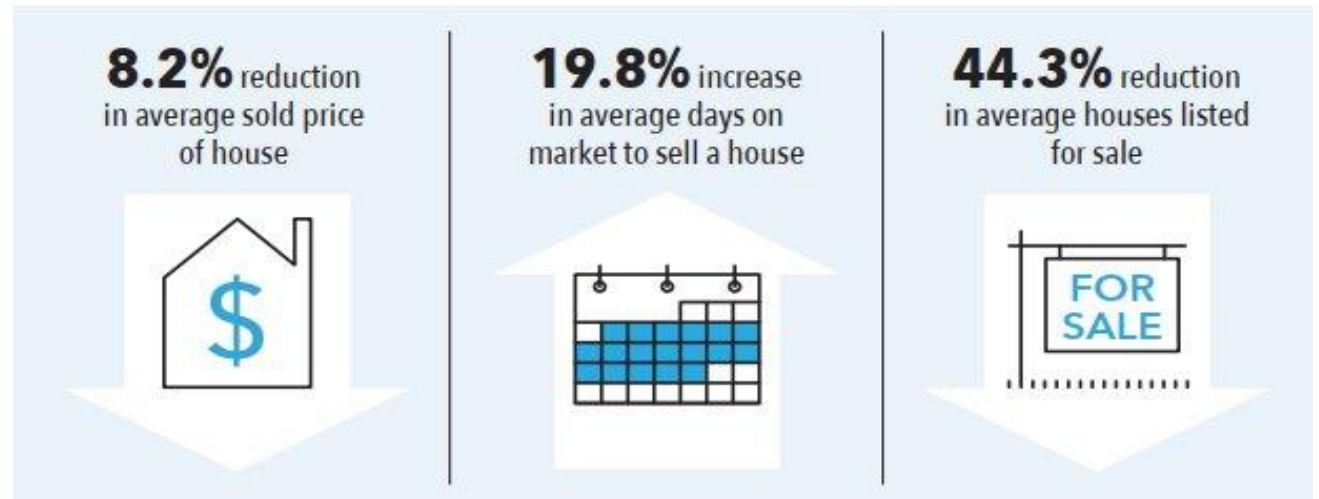
## TREADING WATER: IMPACT OF CATASTROPHIC FLOODING ON CANADA'S HOUSING MARKET

- Sold Price
- Days on Market
- Houses on Market
- Mortgage Arrears & Deferrals

Supported by:  
**intact** CMHC SCHL GRI GLOBAL RISK INSTITUTE

Kathryn Bakos  
Dr. Blair Feltmate  
Chris Chopik  
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February 2022

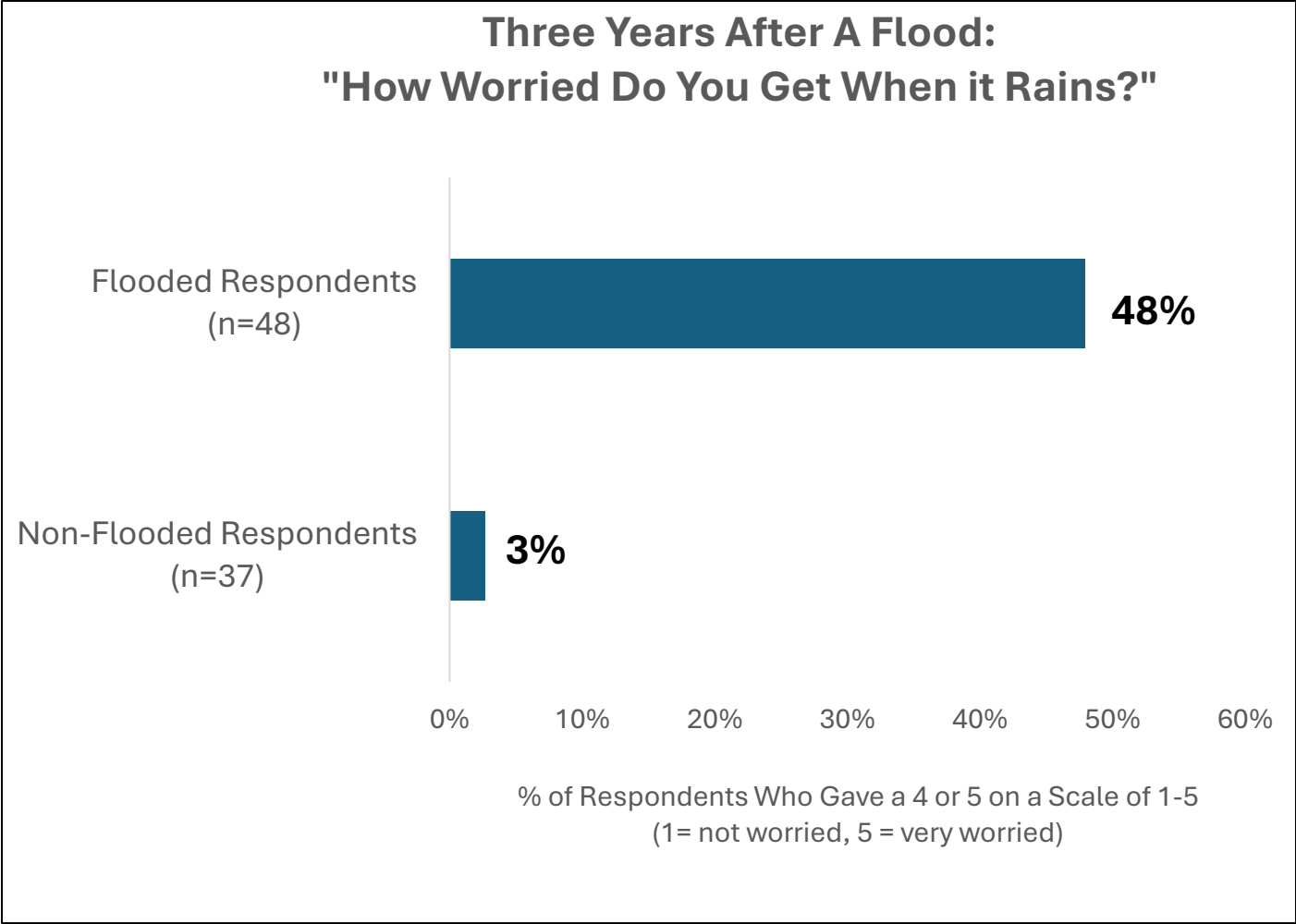
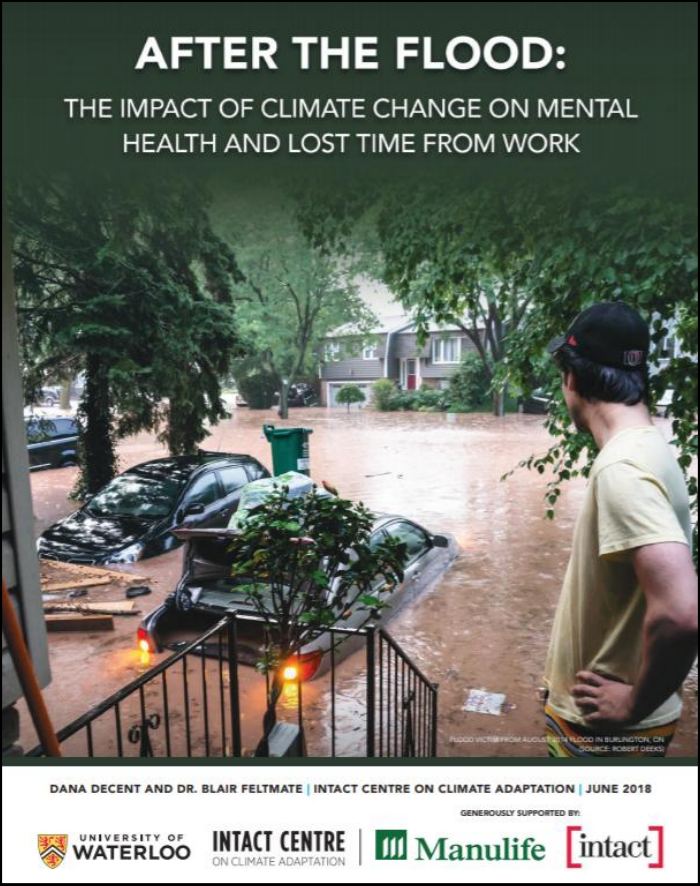


### Main Sources of Flooding:

- Intense rainfall
- Rivers
- Coasts and shorelines

**All residences are at some risk of flooding.**

# Mental Health Impacts of Residential Flooding



**Average time off work following basement flood: 7 days**



# How does the Intact Centre mainstream adaptation?

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*Mainstreaming adaptation means making risk reduction part of everyday decisions.*

## Lessons Learned by the Intact Centre

Practical and usable → home flood protection guidance

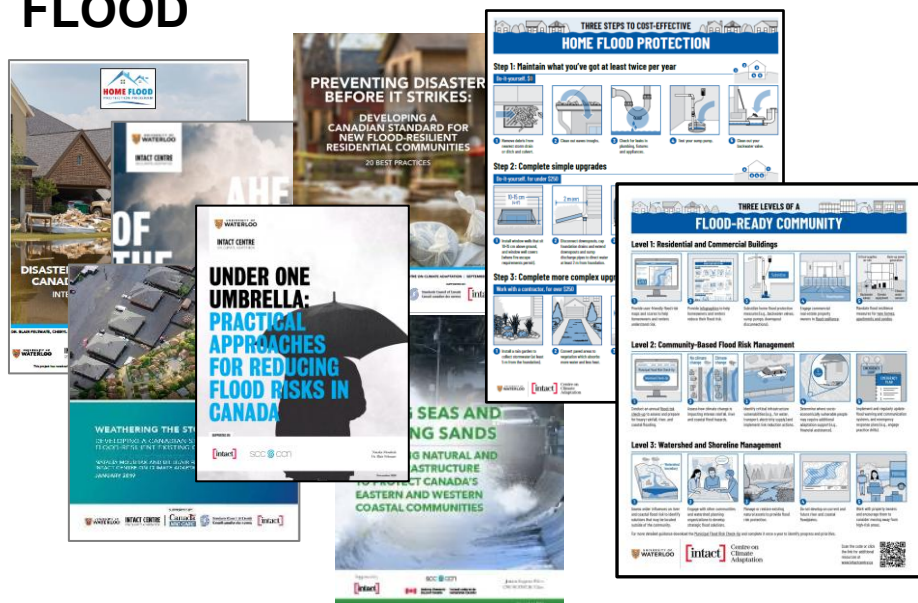
Embedded in planning → Municipal Flood Risk Check-Up

Coordinated across scales → households, municipalities, standards, and funders

Upstream risk reduction → prevention before disaster recovery

# Practical Guidance to Limit Impacts of Floods, Wildfire and Extreme Heat

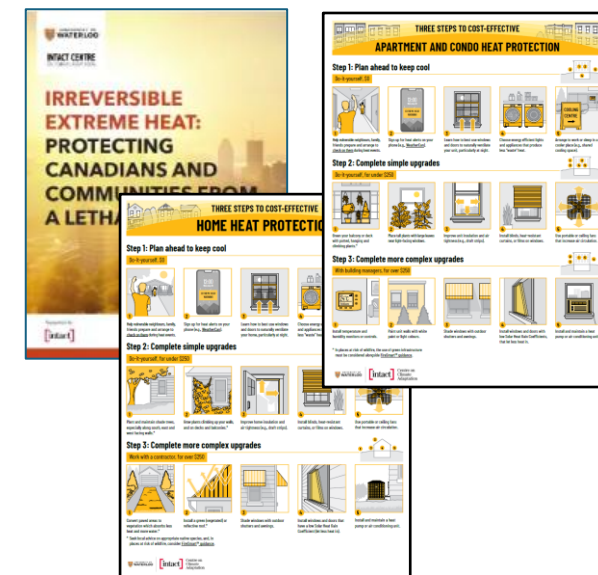
## FLOOD



## WILDFIRE



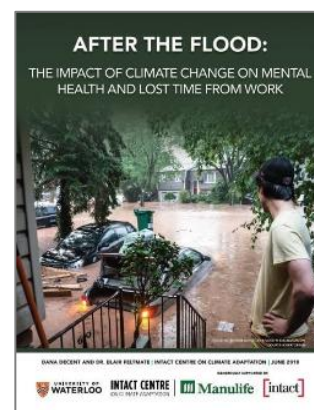
## EXTREME HEAT



## NATURAL INFRASTRUCTURE



## HEALTH



## CAPITAL MARKETS



# Adapting to climate change can be simple and practical



**[intact]** Centre on Climate Adaptation

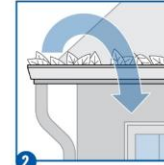
## THREE STEPS TO COST-EFFECTIVE HOME FLOOD PROTECTION

### Step 1: Maintain what you've got at least twice per year

Do-it-yourself, \$0



1 Remove debris from nearest storm drain or ditch and culvert.



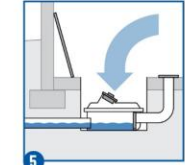
2 Clean out eaves troughs.



3 Check for leaks in plumbing, fixtures and appliances.



4 Test your sump pump.



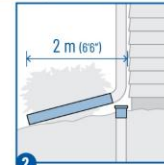
5 Clean out your backwater valve.

### Step 2: Complete simple upgrades

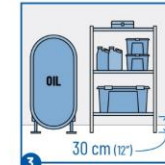
Do-it-yourself, for under \$250



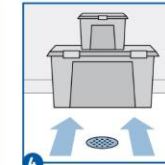
1 Install window wells that sit 10-15 cm (4-6") above ground, and window well covers (where fire escape requirements permit).



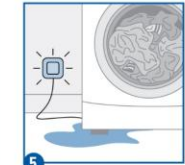
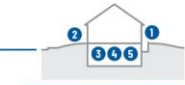
2 Disconnect downspouts, cap foundation drains and extend downspouts and sump discharge pipes to direct water at least 2 m from foundation.



3 Store valuables and hazardous materials in watertight containers and secure fuel tanks.



4 Remove obstructions to floor drain.



5 Install and maintain flood alarm.

### Step 3: Complete more complex upgrades

Work with a contractor, for over \$250



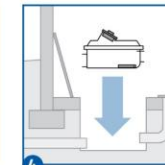
1 Install a rain garden to collect stormwater (at least 5 m from the foundation).



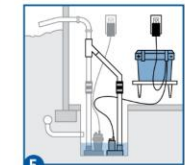
2 Convert paved areas to vegetation which absorbs more water and less heat.



3 Correct grading to direct water at least 2 m away from foundation.



4 Install backwater valve.



5 Install backup sump pump and battery.



**[intact]** Centre on Climate Adaptation

Scan the code or click the link for additional resources at [www.intactcentre.ca](http://www.intactcentre.ca)





# Embedding Flood Risk into Municipal Decision-Making

The Municipal Flood Risk Check-Up is a free assessment designed to:

- Identify a community's exposure to different flood risks
- Evaluate current level of preparedness and document progress over time
- Support planning, funding, and investment decisions
- Align with national adaptation goals

<b>Questions</b>		Section I: Flood Hazard and Exposure - Identifying Potential Risks
		Section II: Flood Preparedness - Analysing Risks
		Section III: Flood Preparedness - Reducing Risks

# Mainstreaming happens when adaptation is embedded in standards, guidance, and municipal workflows



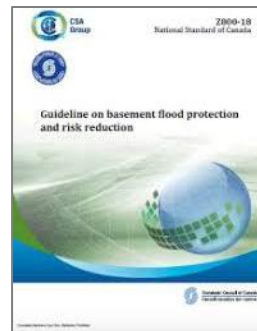
## CSA W210: 21 Prioritization of Flood Resilience Work in Existing Residential Communities

Published by CSA Group in 2021



## CSA W204:F19 Flood resilient design of new residential communities

Published by CSA Group in 2019



## Z800-F18 Guideline on basement flood protection and risk reduction

Published by CSA Group in 2018, 69 pages



## CSA W218:23 Specifications for natural asset inventories

# Municipal Flood Risk in Action Learning Journey

Access the training series and Check-Up here:



## How to use the Check-Up and training videos together

Follow these three simple steps to start building flood resilience in your community:

### Step 1: Access Check-Up tool

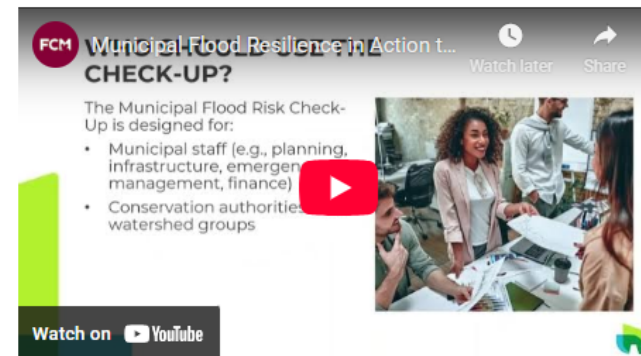
Download free Excel-based tool from the Intact Centre website.

[Download the Check-Up Tool on the Intact Centre website](#)

### Step 2: Watch our Municipal Flood Resilience in Action training videos

Follow along with flood resilience experts as they demonstrate how to complete the Check-Up and apply results to planning and investment decisions.

[Watch the video series](#)



## Welcome & Introduction to the Municipal Flood Risk Check-Up

### Playlist (9 videos)

#### Welcome & Introduction to the Municipal Flood Risk Check-Up

Overview of the tool and how this video series will guide you through it.

#### Understanding Flood Risk: Why It Matters

Learn why flood risk is a critical issue for municipalities and local communities.

#### Navigating the Municipal Flood Risk Check-Up: How It Works

A walkthrough of the Check-Up structure, sections, and workflow.



# Whole-of-Society Approach

## **Coordinating action across households, communities, and governments**

Climate resilience requires coordinated action across scales: households reducing property-level risk, municipalities strengthening infrastructure and planning, and senior governments enabling policy, funding, and standards.

## **Shared responsibilities and long-term adaptation**

Adaptation is a shared responsibility that requires clear roles, sustained commitment, and long-term planning to reduce risk and protect communities over time.

*Mainstreaming adaptation starts when flood risk reduction becomes part of routine home maintenance, municipal planning, infrastructure investment, and community decision-making.*

## Thank you

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