June 11, 2026

Reducing Flood Risk in Nova Scotia:

Practical Resources for Homeowners and Communities





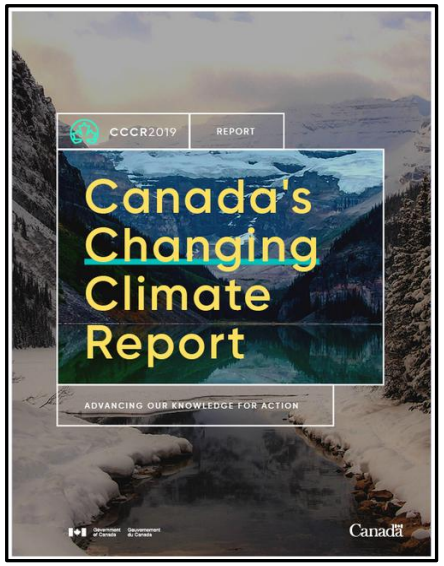


NOVA SCOTIA FEDERATION OF MUNICIPALITIES

Kathryn Bakos
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kbakos@uwaterloo.ca

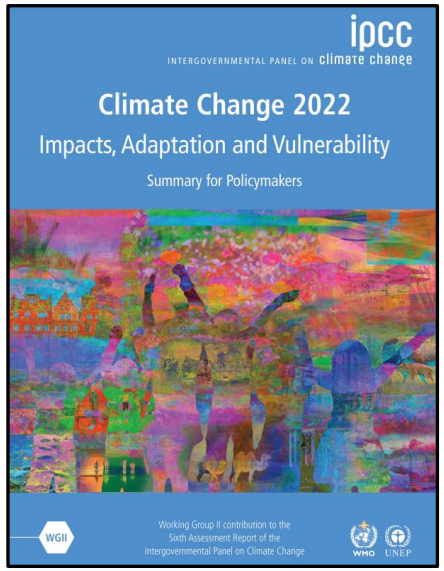
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Climate Change is Irreversible: Severity of Weather Will Increase



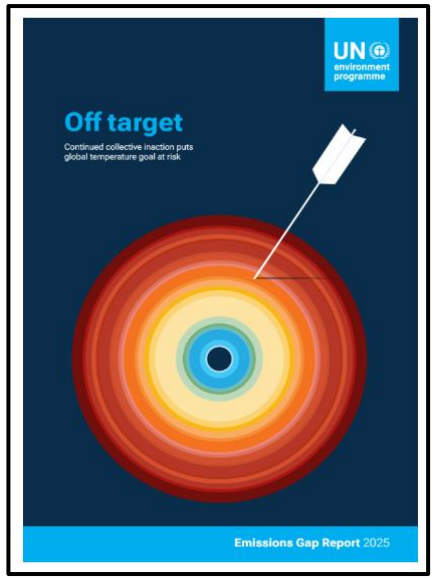
Canada's climate has warmed and will warm further in the future, driven by human influence... this warming is effectively irreversible

ECCC/CCCR 2019



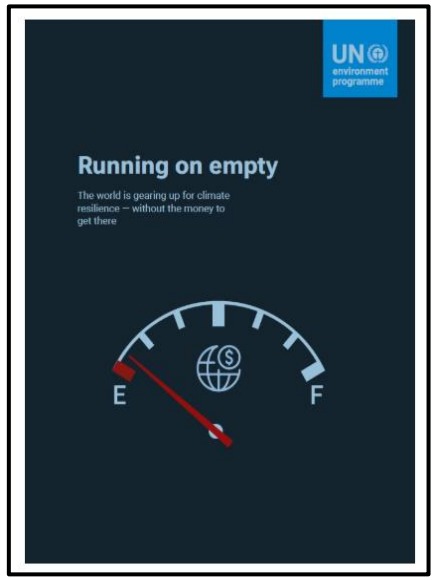
It is indisputable that human activities are causing climate change, making extreme climate events, including heat waves, heavy rainfall, and droughts, more frequent and severe

IPCC 2022



Climate pledges have only slightly lowered global temperature rise – leaving the world heading for a serious escalation of climate risks and damages.

UNEP, 2025



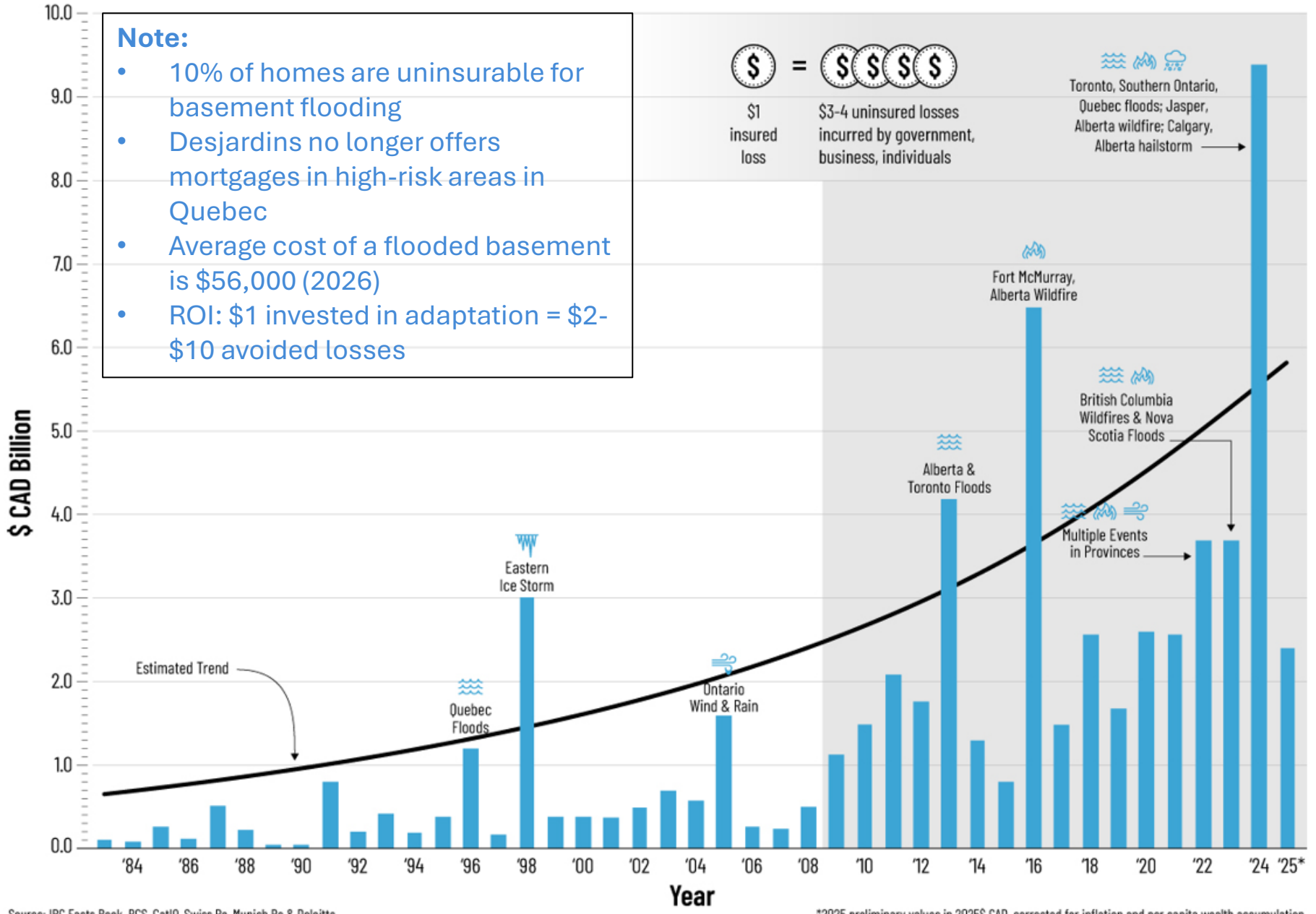
Gap in climate adaptation finance, planning and implementation are putting lives, livelihoods and entire economies at risk.

UNEP, 2025

Costs of Extreme Weather: Catastrophic Insurable Losses

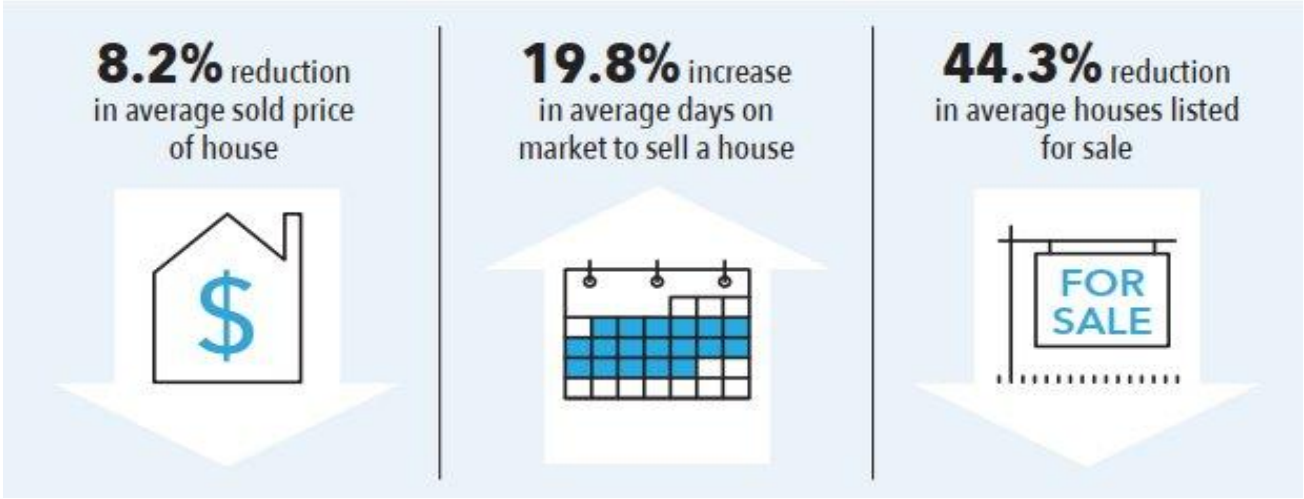
Note:

- 10% of homes are uninsurable for basement flooding
- Desjardins no longer offers mortgages in high-risk areas in Quebec
- Average cost of a flooded basement is $56,000 (2026)
- ROI: $1 invested in adaptation = $2-$10 avoided losses



Impact of Flooding on Residential Housing





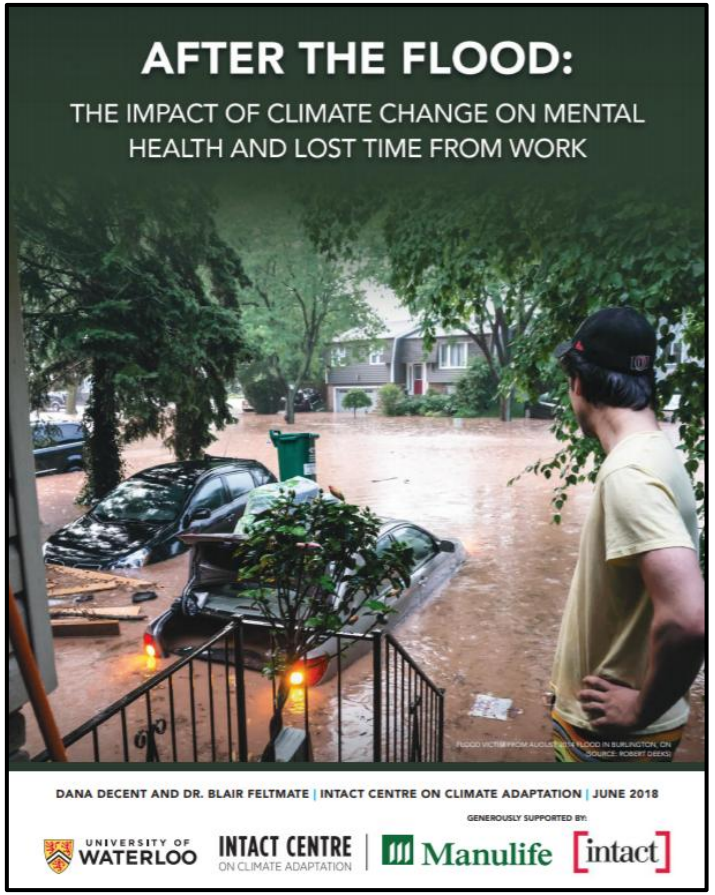
Main Sources of Flooding:

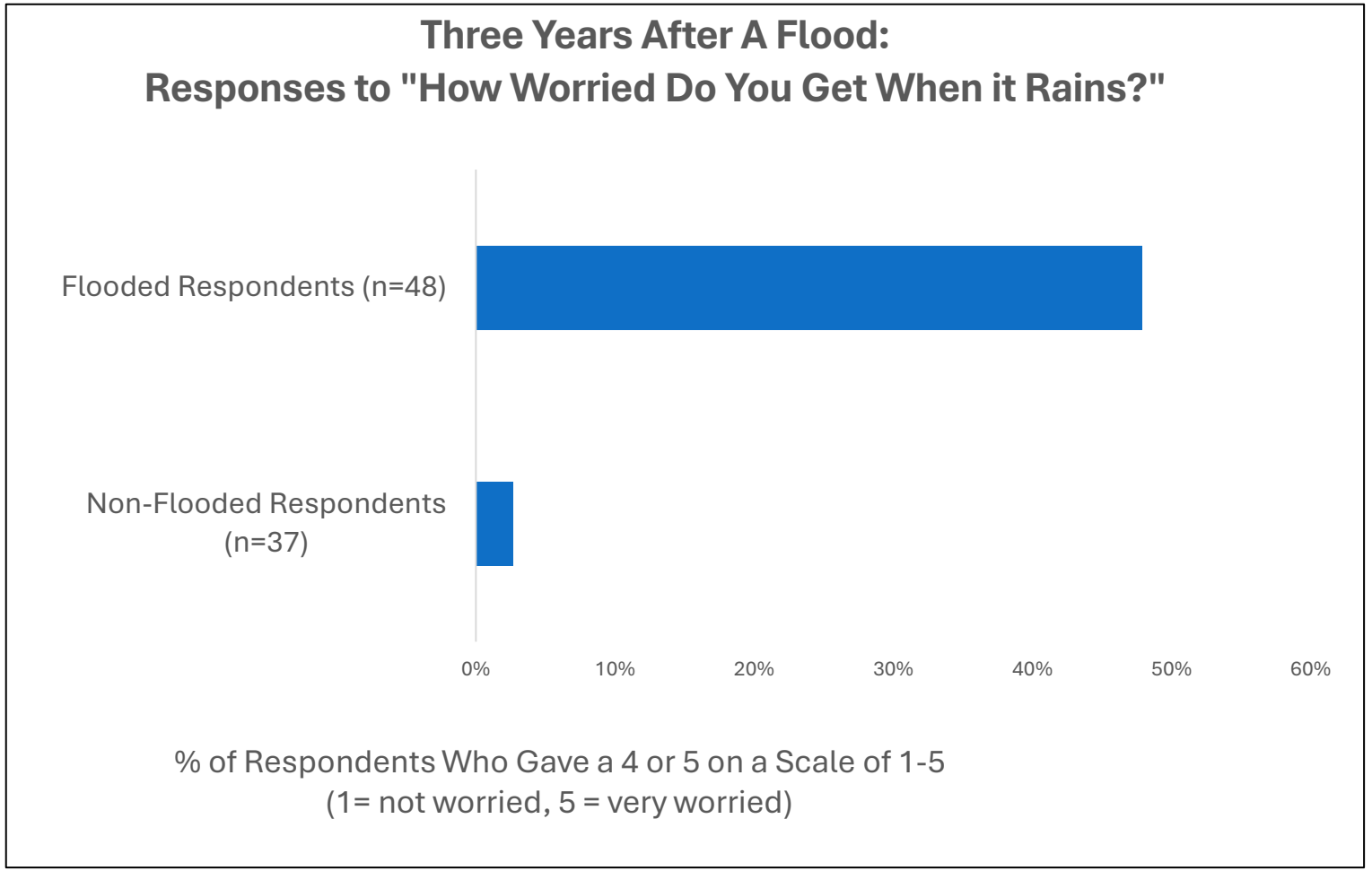
- Intense rainfall
- Rivers
- Coasts and shorelines

All residences are at some risk of flooding.

Mental Health Impacts of Residential Flooding (Life & Health Challenge)

- *"It's something you never want to experience again in your life"*
- Average time off work following basement flood – **7.1** days





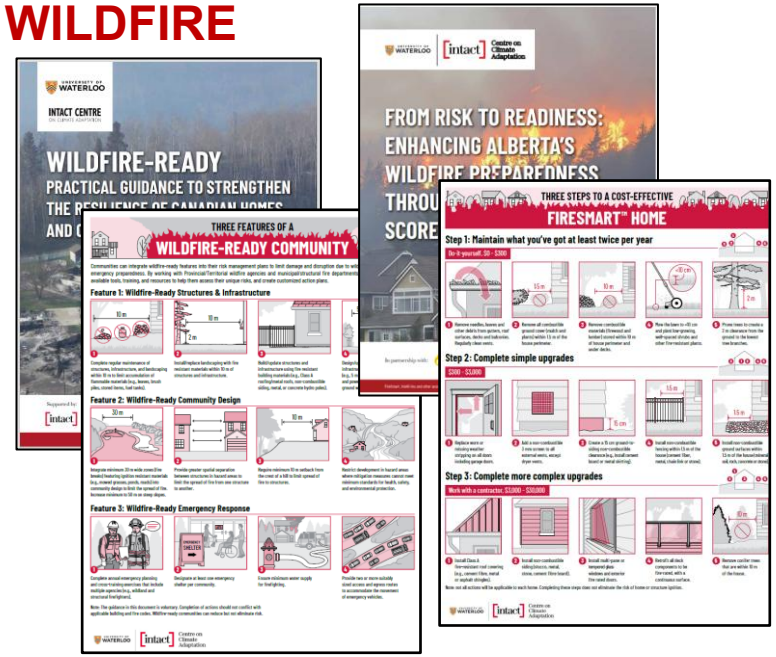
Guidance to Limit Impacts of Floods, Wildfire and Extreme Heat

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FLOOD



WILDFIRE



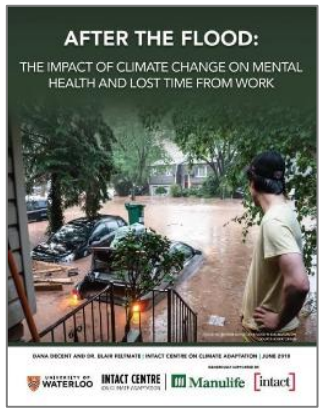
EXTREME HEAT



NATURAL INFRASTRUCTURE



HEALTH



CAPITAL MARKETS



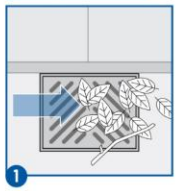
THREE STEPS TO COST-EFFECTIVE

HOME FLOOD PROTECTION

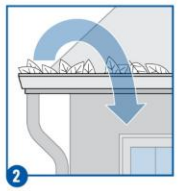
Step 1: Maintain what you've got at least twice per year



Do-it-yourself, $0



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



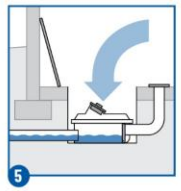
2 Clean out eaves troughs.



3 Check for leaks in plumbing, fixtures and appliances.



4 Test your sump pump.

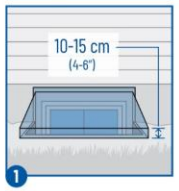


5 Clean out your backwater valve.

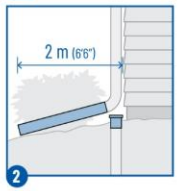
Step 2: Complete simple upgrades



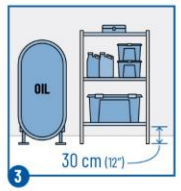
Do-it-yourself, for under $250



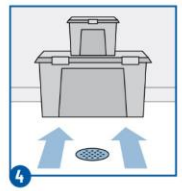
1 Install window wells that sit 10-15 cm above ground, and window well covers (where fire escape requirements permit).



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



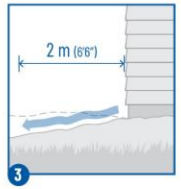
Work with a contractor, for over $250



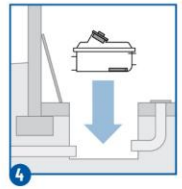
1 Install a rain garden to collect stormwater (at least 5 m from the foundation).



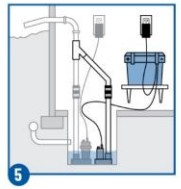
2 Convert paved areas to vegetation which absorbs more water and less heat.



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



4 Install backwater valve.



5 Install backup sump pump and battery.

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Scan the code or click the link for additional resources at www.intactcentre.ca

Home Flood Protection: Step 1 - Maintenance



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



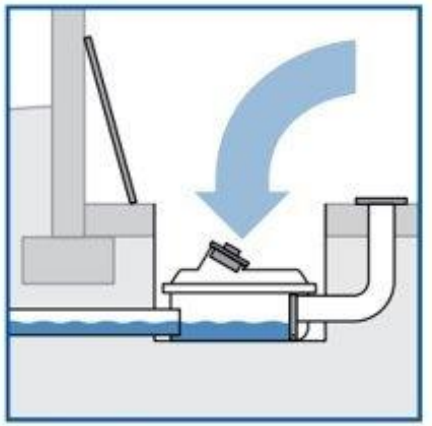
2 Clean out eaves troughs.



3 Check for leaks in plumbing, fixtures and appliances.



4 Test your sump pump.

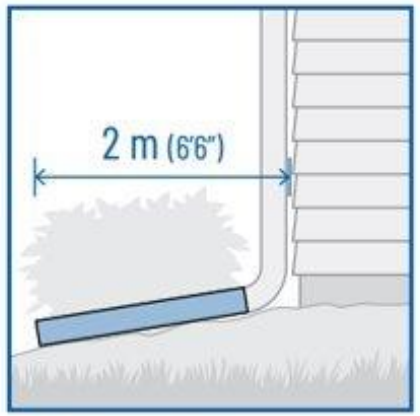


5 Clean out your backwater valve.

Home Flood Protection: Step 2 – Simple Upgrades



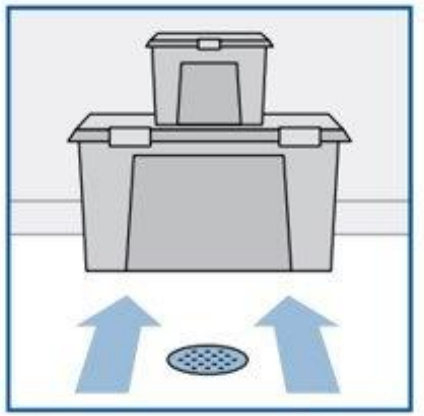
1. Install window well covers (where fire escape requirements permit).



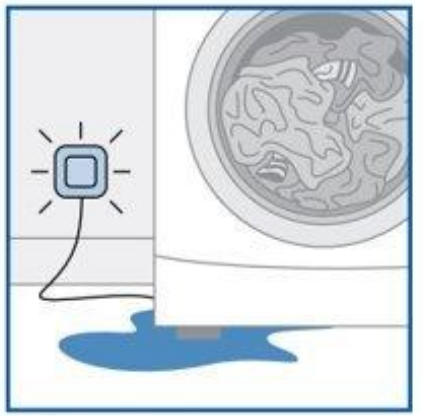
2. Extend downspouts and sump discharge pipes at least 2 m from foundation.



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

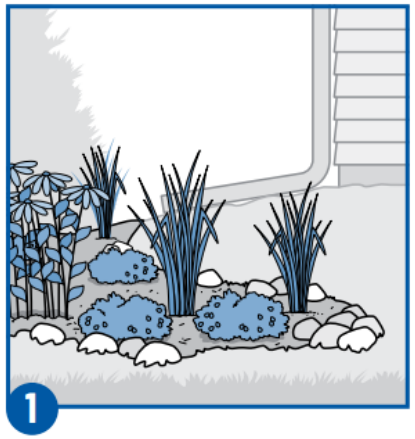


4. Remove obstructions to floor drain.

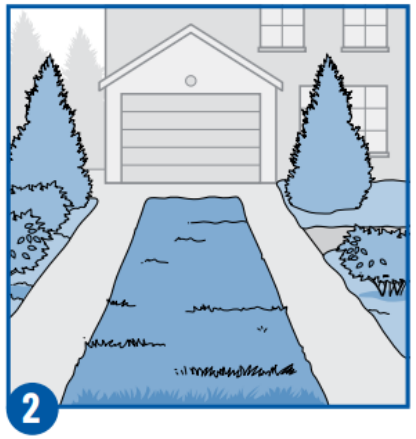


5. Install and maintain flood alarm.

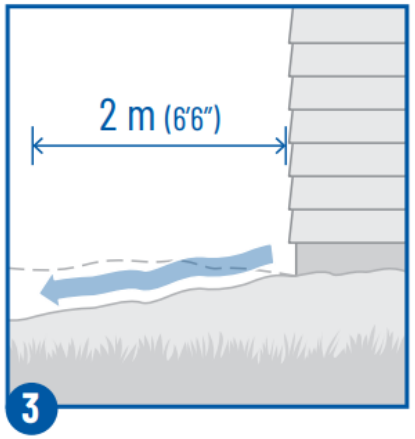
Home Flood Protection: Step 3 – Complex Upgrades



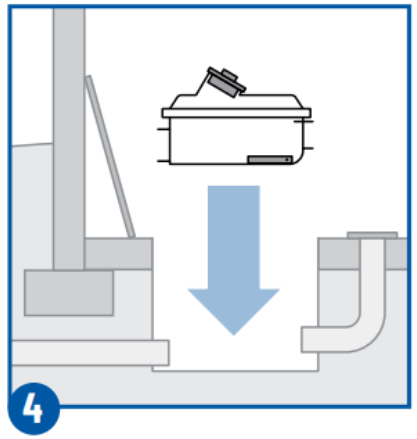
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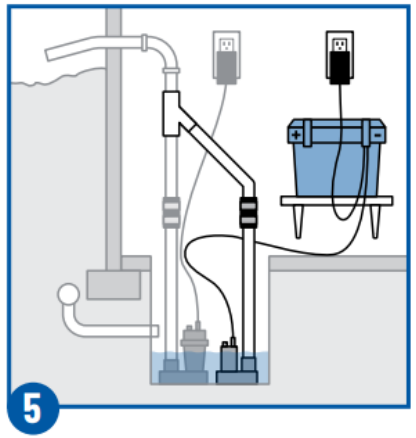
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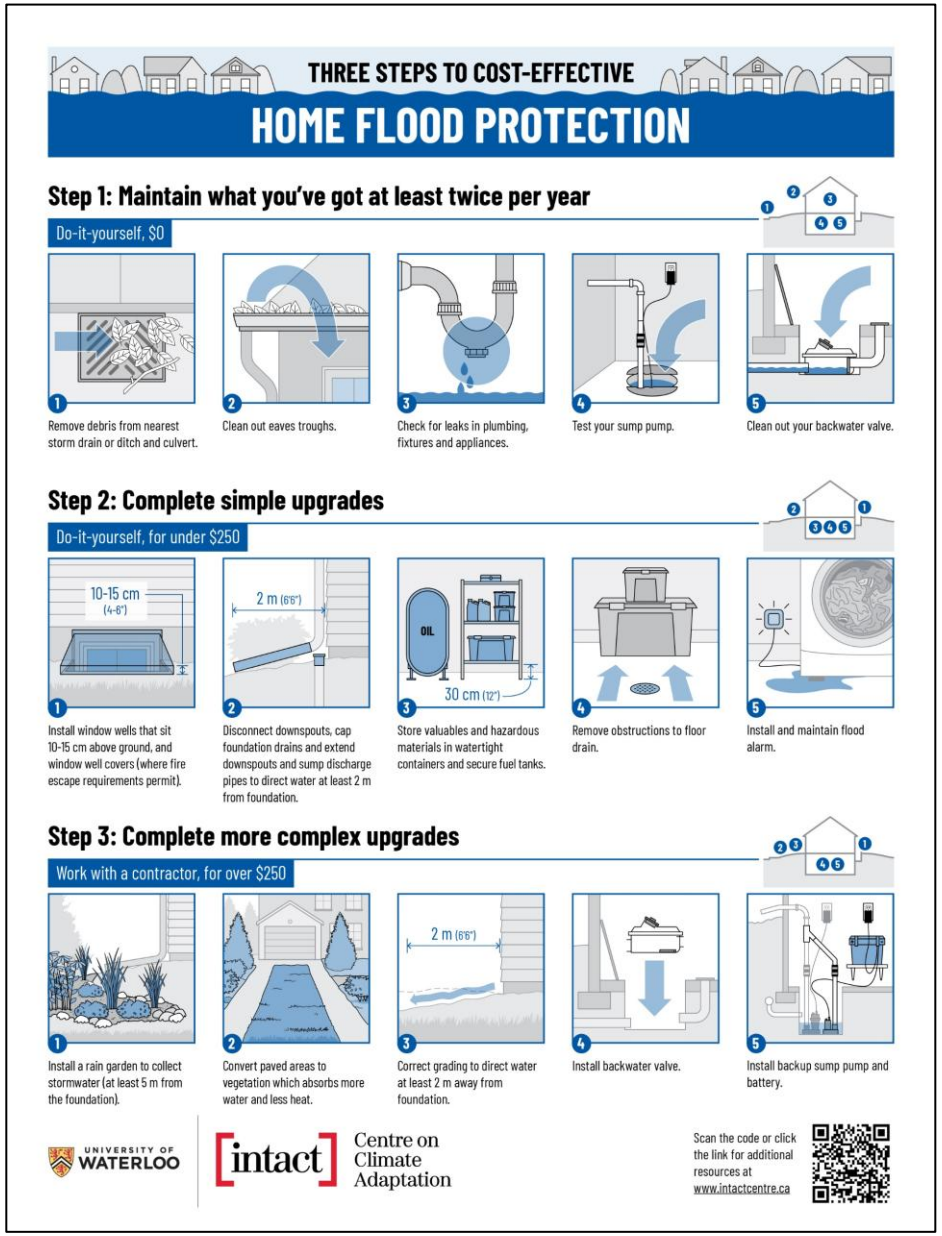


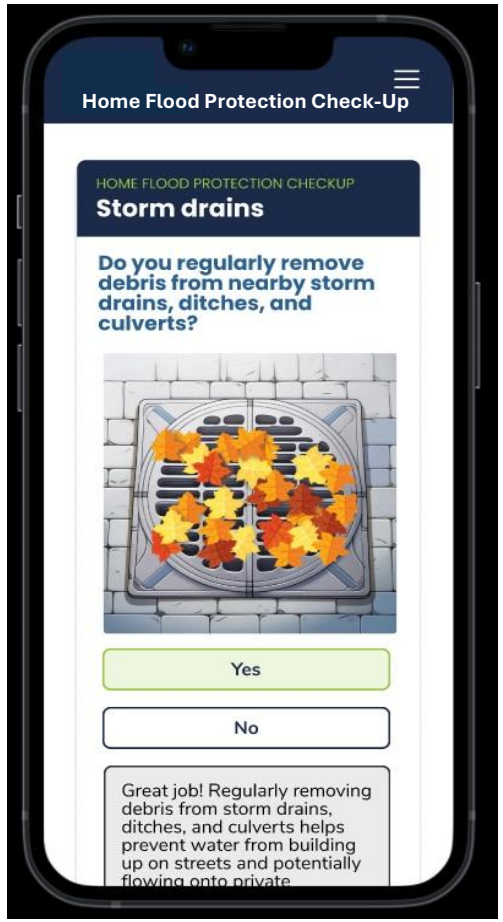
Install backwater valve.



Install backup sump pump and battery.

Home Flood Protection Resources

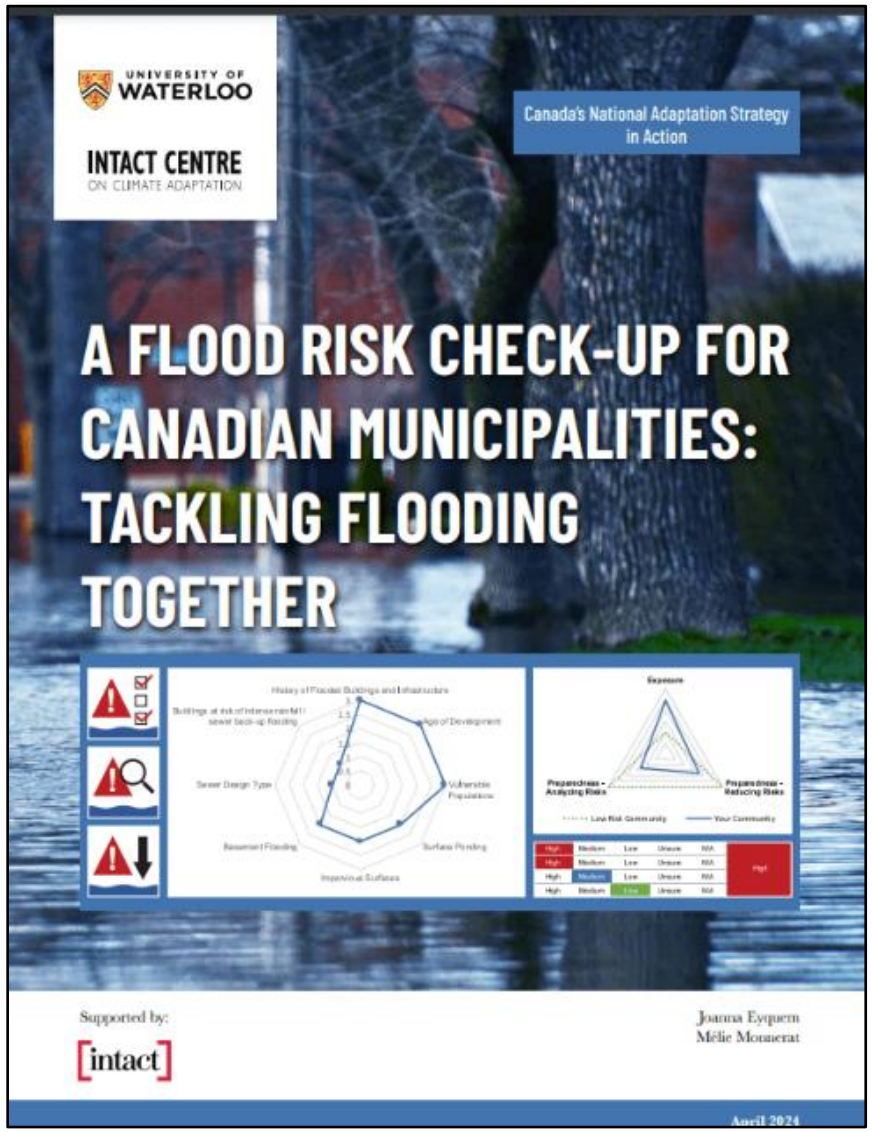






These resources have been adopted by provinces, insurers, and municipalities, and are used in resident outreach programs nationally.

Municipal Flood Risk Check-Up



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

A) Combined Flood Hazards
B) Intense Rainfall/Sewer Back-Up
C) River Flooding
D) Coastal or Shoreline Flooding (including Great Lakes and tidal portions of the St. Lawrence River)

THREE LEVELS OF A FLOOD-READY COMMUNITY

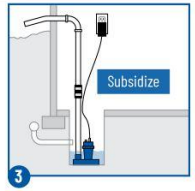
Level 1: Residential and Commercial Buildings



1 Provide user-friendly flood risk maps and scores to help homeowners and renters understand risk.



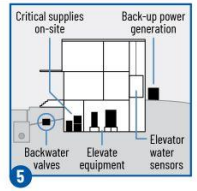
2 Provide infographics to help homeowners and renters reduce their flood risk.



3 Subsidize home flood protection measures (e.g., backwater valves, sump pumps, downspout disconnections).



4 Engage commercial real-estate property owners in flood resilience.

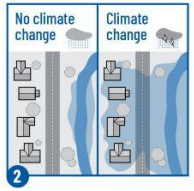


5 Mandate flood resilience measures for new homes, apartments and condos.

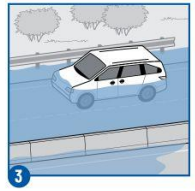
Level 2: Community-Based Flood Risk Management



1 Conduct an annual flood risk check-up to assess and prepare for heavy rainfall, river, and coastal flooding.



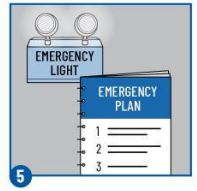
2 Assess how climate change is impacting intense rainfall, river and coastal flood hazards.



3 Identify critical infrastructure vulnerabilities (e.g., for water, transport, electricity supply) and implement risk reduction actions.

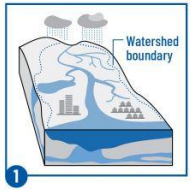


4 Determine where socio-economically vulnerable people may require additional adaptation support (e.g., financial assistance).



5 Implement and regularly update flood warning and communication systems, and emergency response plans (e.g., engage practice drills).

Level 3: Watershed and Shoreline Management



1 Assess wider influences on river and coastal flood risk to identify solutions that may be located outside of the community.



2 Engage with other communities and watershed planning organizations to develop strategic flood solutions.



3 Manage or restore existing natural assets to provide flood risk protection.



4 Do not develop on current and future river and coastal floodplains.



5 Work with property owners and encourage them to consider moving away from high-risk areas.

For more detailed guidance download the Municipal Flood Risk Check-Up and complete it once a year to identify progress and priorities.

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