

# IRREVERSIBLE EXTREME HEAT: PROTECTING CANADIANS AND COMMUNITIES FROM A LETHAL FUTURE

Urban areas are the hot spots of global warming. Extreme heat, alongside flooding and wildfire, is a key risk to the health and well-being of Canadians. Urgent action is required NOW to manage risk and avoid worsening impacts – and ultimately FATALITIES – resulting from rising heat. The ‘Irreversible Extreme Heat’ guide presents practical actions that Canadians can undertake to reduce risks in relation to extreme heat.

## Impacts

Extremely hot temperatures and heat waves can be deadly and have a severe impact on:



### Infrastructure and Services

- Electrical distribution problems
- Disrupted digital and telecommunications services
- Damage to transportation infrastructure - rail, roads, bridges
- Reduced water availability
- Increased demand for health and social services



### Health

- Increase in physical health issues and heat-related deaths
- Adverse affects on mental health and wellbeing
- Increased challenges for populations at risk e.g. older adults, low income families, homeless people



### Natural Environment

- Water-stressed plants
- Reduced insect populations
- Changes in bird communities
- Reduced water quality



### Economy

- Reduced economic productivity
- Increased costs of loss of life and reduced quality of life

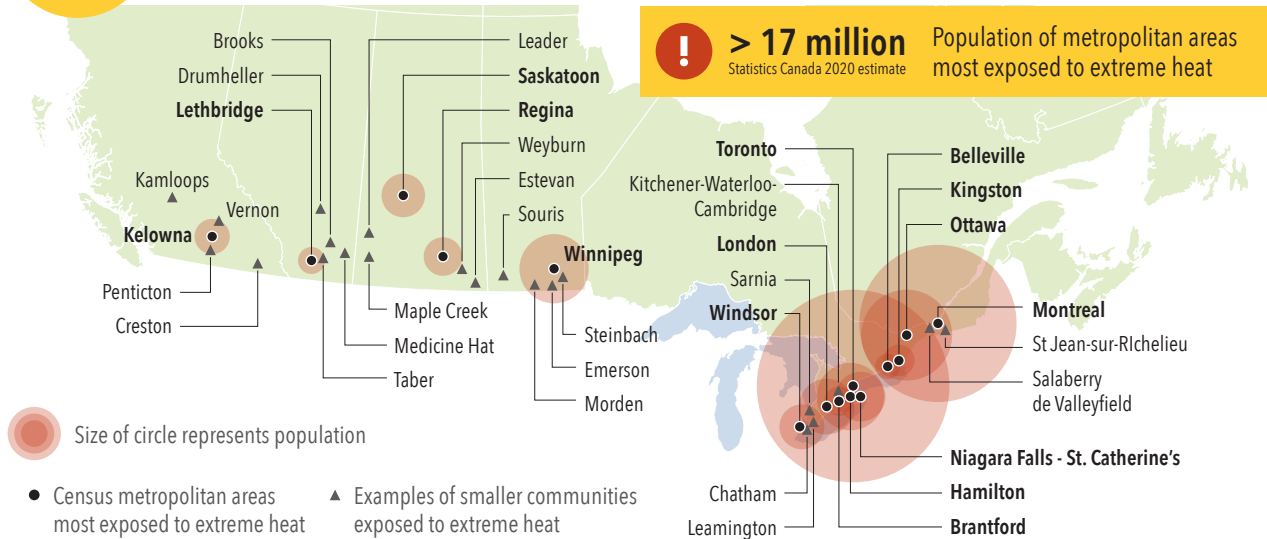


### Heat-related deaths

526 in British Columbia 2021 86 in Quebec 2018

## Risk

Millions of Canadians live in the metropolitan areas and smaller communities where projected extreme heat indicators are most severe (2051-2080).



## Actions

The ‘Irreversible Extreme Heat’ guide presents 35 practical actions that Canadians can undertake to reduce risks related to extreme heat. Here is a small selection of the actions:

Actions fall into three categories

Three groups of Canadians have a role to play, by acting on their own and encouraging others to act to build resilience to extreme heat at the local and community scale



Individuals



Property Owners and Managers



Communities

Non-structural (planning and behavioural changes)	Green Infrastructure (working with nature)	Grey Infrastructure (improving buildings and public infrastructure)
Work with neighbours, friends and family to prepare	Plant and maintain trees	Install shading devices (shutters, awnings, overhangs, blinds, heat-resistant curtains)
Understand building-scale vulnerabilities to extreme heat	Install a green (vegetated) roof	Install and maintain backup power generation (e.g. to maintain air conditioning in designated “cool” rooms)
Develop extreme-heat emergency plan	Expand vegetated areas and water bodies and absorb more water (forming a blue-green infrastructure network)	Adapt community infrastructure to extreme heat (e.g. transport, utilities, water supply)



### Actions can deliver additional benefits

Solutions that work with nature can improve biodiversity, help to reduce flooding, and increase carbon storage. Energy efficiency and resilience to extreme heat can be improved at the same time, reducing energy consumption and greenhouse-gas emissions.

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Canadian alarm bells should be ringing loud and clear in relation to extreme heat. Everyone has a responsibility to reduce their own risks from extreme heat, and an opportunity to help protect others more vulnerable than themselves.

35  
actions

See all 35 actions in the *Irreversible Extreme Heat: Protecting Canadians and Communities From a Lethal Future* report at <https://www.intactcentreclimateadaptation.ca/irreversible-extreme-heat-protecting-canadians-and-communities-from-a-lethal-future>