

## **Recommendations for Municipalities** **Focus: Extreme Heat and Rental Housing**



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## **1. BACKGROUND**

**TEMPERATURE IS RISING IN CANADA.** As of January 18, 2022, 644 municipalities across Canada have declared a climate emergency.<sup>1</sup> As global temperatures continue to rise as a result of climate change, so will the length, frequency, and intensity of extreme heat events. Average mean temperature in Canada has risen by 1.7°C from 1948 to 2016 and is expected to increase between 1.8°C and 6.3°C by the end of the century.<sup>2</sup> The average annual temperature in northern Canada has risen by 2.3°C over the same period, about triple the global rate.<sup>3</sup> Canadians will experience a stark increase in both daytime and nighttime temperatures. For example, by 2051-2080, overnight temperatures in Toronto during heatwaves will remain at or above 21°C, representing an increase of 1.7°C.<sup>4</sup>

**EXTREME HEAT EVENTS HAVE MAJOR HEALTH IMPLICATIONS.** Various life-threatening conditions can occur when the body cannot maintain its core temperature of approximately 36.6°C due to excessive external heat.<sup>5</sup> These include dehydration, cramps, heat exhaustion, and heat stroke.<sup>6</sup> During the summer of 2018 in Quebec, the hottest summer on record in 146 years, 86 heat-related deaths were recorded.<sup>7</sup> In British Columbia, between June 25 and July 1, 2021, 619 heat-related deaths were recorded.<sup>8</sup> Extreme heat is a public health emergency and action must be taken by all municipalities to reduce heat-related deaths.

## **2. EXTREME HEAT AND VULNERABLE PEOPLE**

**VULNERABLE POPULATIONS FACE HIGHER RISKS.** Equity concerns must be built into any policy measure to address extreme heat as certain populations are more at risk for heat-related illnesses and death. These populations include seniors, infants and young children, individuals with chronic illnesses and mobility challenges, and individuals that are socially disadvantaged.

### ***British Columbia***

A report published by the Government of British Columbia, entitled “Extreme Heat and Human Mortality” found that it was vulnerable people who died during the extreme heat event in 2021.

- 90% of the 619 people who died in British Columbia during last year’s heat wave were over 60 years old.<sup>9</sup>

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<sup>1</sup> Random Acts of Green “644 Municipalities Have Declared a Climate Emergency” (January 18, 2022), online: <https://raog.ca/climate-emergency-declarations-canada/>.

<sup>2</sup> Government of Canada, “Changes in Temperature” (April 9, 2019), online: <https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/trends-projections/changes-temperature.html>.

<sup>3</sup> Government of Canada, “Changes in Temperature” (April 9, 2019)

<sup>4</sup> Climate Atlas, “Heat Waves and Health, A Special Report on Climate Change in Canada” (August, 2019), online: <https://climateatlas.ca/sites/default/files/PCC%20-%20Heat%20Waves%20and%20Health%20-%20Nov%202019.pdf> at page 3.

<sup>5</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (June 7, 2022), online: [https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme\\_heat\\_death\\_review\\_panel\\_report.pdf](https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme_heat_death_review_panel_report.pdf) at page 11.

<sup>6</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 11.

<sup>7</sup> Annick Poiras, “Extreme Heat Waves in Quebec”, online: <https://climatedata.ca/case-study/extreme-heat-waves-in-quebec/>.

<sup>8</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 4.

<sup>9</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 13.

- 91% were registered with at least one chronic disease registry.<sup>10</sup>
- Deaths were higher among those living in socially or materially deprived neighbourhoods. Poor quality housing, homelessness and overall deprivation were identified as risk factors for increased mortality rate.<sup>11</sup>
- 98% of heat-related deaths occurred indoors. Most of the 619 people who died were in homes without adequate cooling systems.<sup>12</sup>

## Quebec

An analysis of the deaths in the 2018 Quebec heat wave made similar findings that vulnerable people were most impacted by the extreme heat event:

- Elderly people, those that are socially isolated, and those with chronic diseases or psychotic disorders were most vulnerable to heat.<sup>13</sup>
- The majority of decedents lived in an urban heat island.<sup>14</sup>
- 8/53 decedents in Montreal lived in a senior's home.<sup>15</sup>
- Most decedents did not have access to air conditioning.<sup>16</sup>

### **3. WHY IS INDOOR COOLING ESSENTIAL?**

**PUBLIC COOLING CENTRES ARE NOT ADEQUATE** for those with mobility challenges, disabilities, or respiratory problems. Although these public cooling centres are essential for unhoused people or outside workers, they are not adequate for those indoors or those with disabilities. For individuals with mobility and respiratory issues, movement is further impaired by extreme heat.<sup>17</sup> Getting to a public cooling centre is extremely difficult or near impossible. The most vulnerable populations during an extreme heat event, and the majority of the people who died in British Columbia during the extreme heat event in 2021, needed resources within their homes to survive.<sup>18</sup>

Similarly, common cooling rooms in resident buildings have been found to be ineffective. Common cooling rooms have been described as “effectively useless” by long-term care advocates as most residents stay in their rooms and staff often do not have the opportunity to bring all residents down to these rooms.<sup>19</sup>

**LANDLORDS ARE NOT CURRENTLY OBLIGATED TO COOL BUILDINGS.** Landlords across Canada are obligated to provide a minimum level of heat. For example, the *Residential Tenancies Act* in Ontario defines heat as a ‘vital service’ that the landlord is

<sup>10</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 14.

<sup>11</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 17.

<sup>12</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 5.

<sup>13</sup> Santé Montreal, “Heat Wave Summer 2018 in Montreal”, online:

[https://santemontreal.qc.ca/fileadmin/fichiers/professionnels/DRSP/Directeur/Rapports/Resume\\_EnqueteChaleurMtl\\_2018\\_Anglais.pdf](https://santemontreal.qc.ca/fileadmin/fichiers/professionnels/DRSP/Directeur/Rapports/Resume_EnqueteChaleurMtl_2018_Anglais.pdf) at page 1.

<sup>14</sup> Santé Montreal, “Heat Wave Summer 2018 in Montreal” at page 1.

<sup>15</sup> Center-Sud-de-l'Île-de-Montréal Integrated University Health and Social Services Center, “Heat Wave: July 2018 – Montreal Preliminary Assessment”, online: [https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07\\_juillet/BilanCanicule2018VF.pdf](https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/BilanCanicule2018VF.pdf) at page 2.

<sup>16</sup> Santé Montreal, “Heat Wave Summer 2018 in Montreal” at page 1.

<sup>17</sup> Brishti Basu, “They were trying to figure out how to stay alive: Disability advocates slam heatwave response”, *Capital Daily* (June 7, 2022), online: <https://www.capitaldaily.ca/news/disability-advocates-slam-heatwave-response>.

<sup>18</sup> Brishti Basu, “They were trying to figure out how to stay alive: Disability advocates slam heatwave response”

<sup>19</sup> Katherine DeClerq, “All Ontario long-term care homes now have air conditioning, but not all have them in resident rooms”, CTV News (May 27, 2021), online: <https://toronto.ctvnews.ca/all-ontario-long-term-care-homes-now-have-air-conditioning-but-not-all-have-them-in-resident-rooms>.

obligated to supply and O. Reg. 517/06: Maintenance Standards, section 15 provides details on heating systems within all habitable space in rental units.<sup>20</sup> Air-conditioning or cooling is not similarly defined. As a result, the *Residential Tenancies Act* does not include similar requirements for cooling.

In the Government of British Columbia's report following the extreme heat event and deaths in the summer of 2021, high indoor temperature was identified to be the primary cause of injury and death.<sup>21</sup> The B.C. Centre for Disease Control found that people were most in danger when indoor temperatures remained above 26°C throughout the event.<sup>22</sup> A study in New York also found that humidity exposure and indoor heat above 26°C increased the proportion of emergency calls due to cardiovascular and respiratory distress.<sup>23</sup> A study by the American Journal of Alzheimer's Disease & Other Dementias found that the symptoms of dementia were significantly exacerbated when patients were exposed to temperatures above 26°C.<sup>24</sup> In elderly people, chair rise and balance were significantly lower when these individuals were exposed to a temperature of 27°C, demonstrating increased mobility problems.<sup>25</sup> Therefore, it is crucial that indoor temperatures remain under 26°C.

However, there is currently no legal standard created to protect the health of vulnerable tenants. When Toronto Public Health inspectors measured indoor temperatures at buildings 2-3 storeys high, they found temperatures ranged from 32-39°C during an extreme heat event.<sup>26</sup>

#### **4. MODEL BY-LAW**

This model by-law is a recommendation for municipalities to adopt. It combines various legal sources including O. Reg. 517/06: Maintenance Standards, Mississauga's Adequate Temperature By-Law 0110-2018, Durham's Community Adaptation Plan and Vancouver's Omnibus Climate Emergency Building Report.

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**WHEREAS** sections 8, 9 and 11 of the Municipal Act, 2001, S.O. 2001, c.25, (the "Municipal Act, 2001") authorize a municipality to pass by-laws necessary or desirable for municipal purposes, and in particular, paragraphs 5, 6 and 8 of subsection 11(2) provide that a lower-tier municipality may pass by-laws respecting the economic, social and environmental well-being of the municipality, the health, safety and well-being of persons, and the protection of persons and property;

**AND WHEREAS** section 425 of the Municipal Act, 2001 authorizes a municipality to pass by-laws providing that a person who contravenes a by-law of the municipality passed under that Act is guilty of an offence;

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<sup>20</sup> *Residential Tenancies Act*, 2006, S.O. 2006, c. 17; O. Reg. 517/06: Maintenance Standards, s 15

<sup>21</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" at page 22.

<sup>22</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" at page 22.

<sup>23</sup> Uejio, C. K, et al. (2016). Summer indoor heat exposure and respiratory and cardiovascular distress calls in New York City, NY, US. *Indoor air*, 26(4), 594-604.

<sup>24</sup> Tartarini, F et al. (2017). Indoor air temperature and agitation of nursing home residents with dementia. *American Journal of Alzheimer's Disease & Other Dementias*, 32(5), 272-281.

<sup>25</sup> Lindemann, U et al. (2017). Effect of indoor temperature on physical performance in older adults during days with normal temperature and heat waves. *International journal of environmental research and public health*, 14(2), 186.

<sup>26</sup> City of Toronto, "Reducing Health Risk from Extreme Heat in Apartment Buildings" (June 11, 2015), online: <https://www.toronto.ca/legdocs/mmis/2015/hl/bgrd/backgroundfile-81510.pdf>

**AND WHEREAS** section 436 of the Municipal Act, 2001, provides that a municipality may pass a by-law providing that the municipality may enter on lands at any reasonable time for the purpose of carrying out an inspection to determine whether a by-law of the municipality has been complied with;

**AND WHEREAS** sections 444 and 445 of the Municipal Act, 2001, provide that the municipality may make an order requiring the person who contravened the by-law or who caused or permitted the contravention or the owner or occupier of the land on which the contravention occurred to discontinue the contravening activity or to do work to correct the contravention;

**AND WHEREAS** \_\_insert city name\_\_ considers it necessary to regulate cooling in all rented or leased dwellings.

## **DEFINITIONS**

1. In this By-Law:

**“adequate and suitable cooling”** means an indoor air temperature in the dwelling unit that does not exceed 26 degrees Celsius (26°C).

**“dwelling unit”** means one or more habitable rooms used or designed to be used for human habitation;

**“habitable space”** means a room or area used or intended to be used for living, sleeping, cooking or eating purposes and includes a washroom;

**“landlord”** includes,

(a) the owner of a rental unit or any other person who permits occupancy of a rental unit, other than a tenant who occupies a rental unit in a residential complex and who permits another person to also occupy the unit or any part of the unit,

(b) the heirs, assigns, personal representatives and successors in title of a person referred to in clause (a), and

(c) a person, other than a tenant occupying a rental unit in a residential complex, who is entitled to possession of the residential complex and who attempts to enforce any of the rights of a landlord under a tenancy agreement or this Act, including the right to collect rent;

**“tenant”** includes a person who pays rent in return for the right to occupy a rental unit and includes the tenant’s heirs, assigns and personal representatives, but “tenant” does not include a person who has the right to occupy a rental unit by virtue of being,

(a) a co-owner of the residential complex in which the rental unit is located, or

(b) a shareholder of a corporation that owns the residential complex;

## **ADEQUATE AND SUITABLE COOLING**

2. (1) Adequate and suitable cooling shall be provided and maintained so that the room temperature at 1.5 metres above floor level and one metre from exterior walls in all habitable space and in any area intended for normal use by tenants, including recreation rooms and laundry rooms but excluding locker rooms and garages, is a maximum of 26°C.

- (2) Subsection (1) does not apply to a rental unit in which the tenant can regulate the temperature and a maximum temperature of 26°C can be maintained.
  - (3) Every residential complex shall have cooling equipment capable of maintaining the temperature levels required by subsection (1).
  - (4) Only cooling equipment approved for use by a recognized standards testing authority shall be provided in a room used or intended for use for sleeping purposes.
3. Section 2 shall be implemented by the landlord within one year of the passing of this by-law.

#### **4. OTHER RECOMMENDATIONS**

These recommendations are suggested to be implemented **above and beyond** the model municipal by-law requiring adequate and suitable cooling by all landlords.

1. **Activate public spaces as temporary cooling centres during extreme heat events.** During a heat event, the City of Hamilton opens sites for residents to cool off. A map of these locations is posted publicly on their website.
2. **Provide free public transportation to cooling locations during an extreme heat event to increase accessibility.** As part of its Heat Response Plan, the City of Greater Sudbury provides free bus transportation to cooling centres.
3. **Distribution of bottled water to high-risk populations.** As part of its Heat Response Plan, the City of Greater Sudbury provides bottled water to vulnerable populations in conjunction with community partners, such as the Red Cross and Salvation Army.
4. **Enhance protection of outside workers during extreme heat.** The City of Windsor in its Climate Adaption Plan will identify options to modify outdoor staff work schedules and/or move tasks to earlier in the day, or into shaded areas. Windsor will also provide sun protection options and investigate cooler uniform options.
5. **Mapping to identify vulnerable populations.** Heat vulnerability maps show where "hotspots" in the city overlap with populations who may be more vulnerable to heat. These maps allow community partners to deliver heat-related resources to those that need it most. Toronto Public Health has developed several heat vulnerability maps.
6. **Work with landlords and community organizations to establish a vulnerable persons registry to communicate with them and their caregivers proactively during extreme weather.** Durham Public Health gives local municipalities and community partners early notification of extreme heat events who then provide services for vulnerable individuals. An email is posted on their webpage for organizations to subscribe to early notifications.

The following amendments should also be made to the Ontario *Residential Tenancies Act*:

7. **Section 15 of the O. Reg. 517/06 should be amended to include maximum heat protections.** Maximum heat protections should be passed by the province to ensure all tenants across the province are protected from the health impacts of extreme heat.
8. **Any ongoing cost to the tenant for adequate and suitable cooling should only reflect the actual cost of the additional service.** The *Residential Tenancies Act* should explicitly prevent landlords from charging more for ongoing cooling services than the actual monthly cost of the service.

9. **Any term of a lease restricting the ability of tenants to cool their units should be declared void by the *Residential Tenancies Act*.** An amendment to the *Residential Tenancies Act* should recognize that previous agreements restricting the use of air-conditioning by renters shall be considered void.

Targeted federal and provincial programs should be created to assist landlords with meeting the requirements of the by-law.

10. **Provincial and federal funding for energy retrofit programs should explicitly include building upgrades to provide cooling.** Currently, there are a number of programs available to assist the owners of large buildings with energy retrofits. Those programs should be widened and targeted to low-income rental properties. Those programs should explicitly include funding for retrofits to allow for cooling as a critical climate adaptation measure.

Ontario Electricity Support Program should account for any increase in costs to tenants from cooling.

11. **The Ontario Energy Board should increase the Ontario Electricity Support Program on-bill credit amount to reflect any higher electricity usage to adequately cool dwelling units.** The Ontario Electricity Support Program provides on-bill credit amounts for eligible electricity users. The program is reviewed every three years. At the next review, the Ontario Energy Board should review on-bill credit amounts to ensure it reflects the cost of using air-conditioning in summer months.