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The Urgent Need for a Maximum Temperature By-Law in the City of Toronto

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1. Introduction

It has been almost 5 years since the Toronto City Council unanimously declared a climate emergency on October 2, 2019.¹ The City has also acknowledged that the climate crisis grows more urgent every year and that Canada is alarmingly warming at twice the global rate.² However, the City has yet to pass a maximum temperature by-law that would require rental units to be cooled to a maximum of 26°C to address extreme heat, leaving tenants at risk of serious health impacts from heat exposure.

TEMPERATURES IN CANADA AND TORONTO ARE RISING AT AN UNPRECEDENTED RATE

As of January 18, 2022, over 650 municipalities across Canada have declared a climate emergency.³ As global temperatures continue to rise due to climate change, so will the length, frequency, and intensity of extreme heat events.⁴

Canadians have already begun to experience a stark increase in both daytime and nighttime temperatures. The average mean temperature in Canada has risen by 1.7°C from 1948 to 2016 and is expected to drastically increase between 1.8°C and 6.3°C by the end of the century.⁵

The City of Toronto projects that by 2040-2050, the city will experience approximately 66 days with temperatures reaching above 30°C.⁶ By 2051-2080, overnight temperatures in Toronto are predicted to remain at or above 21°C during extreme heat events.⁷

EXTREME HEAT EVENTS HAVE MAJOR HEALTH IMPLICATIONS

Extreme heat is a public health emergency and immediate action must be taken by all municipalities to reduce heat-related illnesses and deaths. Various life-threatening conditions can occur when the body cannot maintain its core temperature of approximately 36.6°C due to

¹ Item – 2019.MM10.3, Declaring a Climate Emergency and Accelerating Toronto’s Climate Action – by Mayor John Tory, seconded by Councillor Mike Layton (October 2, 2019), online: <https://secure.toronto.ca/council/agenda-item.do?item=2019.MM10.3>

² City of Toronto, “About the Climate Crisis”, online: <https://www.toronto.ca/services-payments/water-environment/environmentally-friendly-city-initiatives/about-the-climate-crisis/>

³ Random Acts of Green, “650 Municipalities Have Declared a Climate Emergency in Canada” (January 18, 2022), online: <https://raog.ca/climateemergency-declarations-canada/>; see also Item – 2019.MM10.3.

⁴ Government of Canada, “Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials” (2011) at 1, online: https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/climat/heat-chaleur/heat-chaleur-eng.pdf

⁵ Government of Canada, “Changes in Temperature” (April 9, 2019), online: <https://www.canada.ca/en/environment-climatechange/services/climate-change/canadian-centre-climate-services/basics/trends-projections/changes-temperature.html>

⁶ City of Toronto, “Preparing for Extreme Weather”, online: <https://www.toronto.ca/services-payments/water-environment/live-green-toronto/preparing-for-extreme-weather/>

⁷ Prairie Climate Centre, “Heat Waves and Health: A Special Report on Climate Change in Canada” (August 2019) at 3, online: <https://climateatlas.ca/sites/default/files/PCC%20-%20Heat%20Waves%20and%20Health%20-%20Nov%202019.pdf>

excessive heat.⁸ These include dehydration, skin rashes, cramps, heat exhaustion, heat stroke and premature death.⁹

In Quebec, 2018 was the hottest summer on record in 146 years and 86 heat-related deaths were recorded.¹⁰ In British Columbia, 619 heat-related deaths were recorded between June 25 and July 1, 2021.¹¹ There is no comparable information on heat-related deaths in Ontario as the Coroner's Office does not adequately track heat-related deaths.¹² As the impacts of the climate emergency worsen, we can expect more extreme heat events and all of the corresponding health risks in Toronto.

2. The People Most Vulnerable to Extreme Heat in Toronto

CANADA'S NATIONAL ADAPTATION STRATEGY

Canada's National Adaptation Strategy calls for ambitious and collective adaptation action that is equitable and inclusive to ensure that everyone's lives and welfare are protected from the impacts of a changing climate. The strategy goes on to identify extreme heat as the deadliest weather-related event in the country.¹³ With an objective of protecting people from urgent climate-related health risks, the Strategy sets a target of 2040 to eliminate all heat-related deaths.¹⁴

CASE STUDY – QUEBEC

An analysis of the deaths in Quebec during the extreme heat event in 2018 found that people who were older, socially isolated, low-income, and those with a chronic disease or a psychotic

⁸ Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (June 7, 2022) at 11, 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>

⁹ Kim Perrota, "Climate change, population health and health equity: Public health strategies and five local climate solutions that produce health and health equity benefits" (November 2023) at 47, online: https://www.cpha.ca/sites/default/files/uploads/resources/climateaction/2023-11-net-zero-final-report_e_final.pdf

¹⁰ Annick Poitras, "Extreme Heat Waves in Quebec", online: <https://climatedata.ca/case-study/extreme-heat-waves-in>

¹¹ Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" at 4.

¹² Canadian Environmental Law Association, "Heat-related Death Tracking Ontario" (July 14, 2021), online: https://cela.ca/wp-content/uploads/2021/07/Letter_Tracking_Heat-Related_Deaths.pdf

¹³ Environment and Climate Change Canada, "Canada's National Adaptation Strategy: Building Resilient Communities and a Strong Economy" (August 1, 2023) at 6, online: <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html>

¹⁴ Environment and Climate Change Canada, "Canada's National Adaptation Strategy: Building Resilient Communities and a Strong Economy" (August 1, 2023) at 23.

disorder were most vulnerable to the impacts of heat.¹⁵ For example, 8 of the 53 people who died in the City of Montreal during the 2018 heat wave lived in a long-term care home.¹⁶ An evaluation of heat-related deaths in Quebec further found that the majority of the people who died did not have access to active cooling like air-conditioners or heat pumps and lived in an urban heat island, such as Montreal.¹⁷

CASE STUDY – BRITISH COLUMBIA

After the 2021 extreme heat event in British Columbia, the provincial government found that 98% of the 619 deaths occurred indoors.¹⁸ Of these 619 people, 90% were over the age of 60. Most of the people who died did not have adequate cooling systems. Notably, deaths were higher among those living in socially or materially deprived neighborhoods with poor-quality housing. Unhoused individuals and overall deprivation were also identified as risk factors for increased mortality rates.¹⁹

The Chief Coroner of British Columbia explicitly identified high indoor temperatures as the primary cause of injury and death during this extreme heat event.²⁰ This report goes on to state:

“During this time, hot air became trapped indoors and continued to rise over time. Although outdoor temperatures decreased overnight, residences did not cool off, exposing people to harmful high temperatures for extended periods of time. The BC Centre for Disease Control (BCCDC) identified that people were most in danger when indoor temperatures remained above 26 degrees throughout the heat event.”²¹

TORONTO’S MOST VULNERABLE RESIDENTS ARE AT RISK FROM EXTREME HEAT

The City of Toronto must ensure equity concerns are central to policy measures that address extreme heat as certain populations are more at risk for heat-related illnesses and death. These

¹⁵ Santé Montreal, “Heat Wave Summer 2018 in Montreal” (2018) at 1, online :

https://santemontreal.qc.ca/fileadmin/fichiers/professionnels/DRSP/Directeur/Rapports/Resume_EnqueteChaleur_Mtl_2018_Anglais.pdf

¹⁶ Center-Sud-de-l’Île-de-Montréal Integrated University Health and Social Services Center, “Heat Wave: July 2018 – Montreal Preliminary Assessment” (2018) at 2, online:

https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/BilanCanicule2018VF.pdf

¹⁷ Center-Sud-de-l’Île-de-Montréal Integrated University Health and Social Services Center, “Heat Wave: July 2018 – Montreal Preliminary Assessment” (2018) at 2.

¹⁸ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (June 7, 2022) at 5.

¹⁹ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (June 7, 2022) at 17.

²⁰ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (June 7, 2022) at 22.

²¹ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (June 7, 2022) at 22.

populations include seniors, infants and young children, individuals with chronic illnesses and mobility challenges, and individuals that are socially disadvantaged.

Tenants are more susceptible to extreme heat events because many are unable to control the temperature within their rental units. In 2018, the City of Toronto reported that only 6% of apartment buildings in Toronto are reported to have air conditioning.²² When Toronto Public Health inspectors measured indoor temperatures in 2-3 story buildings, they found temperatures dangerously ranging from 32°C to 39°C during an extreme heat event.²³

The Association of Community Organizations for Reform Now (“ACORN”) released a *Beat the Heat! Report* in 2023 that voices the concerns of over 150 tenants in Toronto.²⁴ These tenants are suffering from poor sleep, fatigue, headaches, and the inability to concentrate or complete tasks due to extreme heat. Over 20% of the tenants also reported experiencing heat stroke, a medical emergency. To cope with the heat, most tenants must run fans in their units with only a third of them attending public indoor spaces or outdoor spaces.

A CBC investigation installed heat and humidity sensors inside 10 Toronto apartments last summer.²⁵ Eighty percent of apartments had temperature readings indoors of 26°C or higher for the majority of the summer months. Telling the story of Mamo and her 86-year-old mother, the CBC investigation found that temperatures in Mamo’s apartment reached a high of 28.07°C, with the heat index making it feel more like 31.2°C. Meanwhile, inside Khalil Aldroubi’s Scarborough apartment, where he lives with his wife and five children, the hottest temperature recorded was 29.79°C. With such high indoor temperatures, it is impossible for these families to keep cool enough to be safe from the impacts of extreme heat.

A 2007 study published in the Canadian Journal of Public Health looked at hot weather patterns in Toronto spanning the last five decades with the purpose of assessing the associated burden of mortality. The study found that, on average, there were 120 heat-related deaths per year in Toronto, with mortality rates being the greatest during the months of July and August.²⁶ Extreme heat and climate change have gotten worse in the 17 years since this study.

INDOOR HEAT ABOVE 26°C IS DANGEROUS

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

²² City of Toronto, “Mitigating the Negative Impacts of Extreme Heat in Apartment Buildings” (April 26, 2018), online: <https://www.toronto.ca/legdocs/mmis/2018/ls/bgrd/backgroundfile-114428.pdf>

²³ 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>

²⁴ Association of Communities for Reform Now, “Beat the Heat! Toronto ACORN Report” (2023), online: <https://acorncanada.org/wp-content/uploads/2023/08/Toronto-ACORN-Beat-the-Heat-report.pdf>

²⁵ Farrah Merali, “Experts sound the alarm on dangerously hot temperatures inside Toronto apartments” (September 14, 2023), online: <https://www.cbc.ca/news/canada/toronto/urban-heat-study-looks-at-temperatures-inside-toronto-apartments-without-ac-1.6965281>

²⁶ L. David Pengelly et al, “Anatomy of Heat Waves and Mortality in Toronto” (September 1, 2007) 98 Can J Public Health 364-388, online: <https://link.springer.com/article/10.1007/BF03405420>

and death.²⁷ The BCCDC found that people were most in danger when indoor temperatures remained above 26°C throughout the event.²⁸

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.²⁹ 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.³⁰ 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.³¹ Therefore, it is crucial that indoor temperatures remain under 26°C.

3. Why is Indoor Cooling Essential?

COOLING OUTSIDE OF THE HOME IS NOT ADEQUATE

For those with mobility challenges, disabilities, or respiratory problems, public cooling centers are not adequate. Although these public cooling centres are essential for unhoused people or outside workers, they are not adequate for people living in rental units without active cooling. For individuals with mobility and respiratory issues, movement is further impaired by extreme heat.³² Getting to a public cooling centre is extremely difficult or near impossible. The majority of the people who died in British Columbia during the extreme heat event in 2021 needed resources within their homes to survive.³³

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.³⁴

²⁷ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 22.

²⁸ Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” at page 22.

²⁹ Uejio, C., 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, online: <https://pubmed.ncbi.nlm.nih.gov/26086869/>

³⁰ 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.

³¹ 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, online: <https://pubmed.ncbi.nlm.nih.gov/28429641/>

³² 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>

³³ Brishti Basu, “They were trying to figure out how to stay alive: Disability advocates slam heatwave response”, *Capital Daily* (June 7, 2022).

³⁴ Katherine DeClerq, “All Ontario long-term care homes now have air conditioning, but not all have them in resident rooms”(May 27, 2021), online: <https://toronto.ctvnews.ca/all-ontario-long-term-care-homes-now-have-air-conditioning-but-not-all-have-them-in-residentrooms>

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 obligated to supply and in *O. Reg. 517/06: Maintenance Standards*, section 15 provides details on heating systems within all habitable space in rental units.³⁵ Air-conditioning or cooling is not similarly defined.

4. City of Toronto’s Response to the Climate Emergency

TORONTO’S HEAT RELIEF STRATEGY

In May 2023, the City of Toronto implemented a Heat Relief Strategy designed to reduce incidences of heat-related illness and death in Toronto due to extreme heat.³⁶ However, aside from educating tenants on their options to keep cool, this strategy is silent on the dire need for cooling inside tenants’ homes. An adequate temperature by-law will shift the onus of keeping cool away from individual tenants, who are often unable to adequately address the temperature within their dwelling units, and will ensure a more unified and enforceable response across the City.

REQUEST TO IMPLEMENT AN ADEQUATE TEMPERATURE BY-LAW (ITEM – 2023.MM7.8)

Councillor Shelley Carroll brought forward Motion MM7.8 – Request to Implement an Adequate Temperature By-law.³⁷ The Motion was adopted by City Council on June 14, 2023. In summary, the Motion directs the following:

- Municipal Licensing & Standards and Environment & Energy to report back to the Planning and Housing Committee by the first quarter of 2024 on the feasibility of options for the City to effectively require all landlords who control the temperature in leased residential premises to, in part, not exceed a specified temperature.
- Municipal Licensing & Standards, Social Development, Finance, & Administration, Housing Secretariat, and Environment & Energy, in consultation with the Medical Officer of Health, to report back to the Planning and Housing Committee by the first quarter of 2024 on what minimum and maximum temperatures should be specified for leased residential premises, and for cooling centres, that protect tenants’ health and are consistent with TransformTO.

³⁵ *Residential Tenancies Act*, 2006, S.O. 2006, c. 17; *O. Reg. 517/06: Maintenance Standards*, s 15.

³⁶ City of Toronto, “City of Toronto Heat Relief Strategy” (May 2023), online: <https://www.toronto.ca/wp-content/uploads/2023/05/8f1c-Heat-Relief-Strategy-2023finalAODA.pdf>

³⁷ Item-2023.MM7.8 – Request to Implement an Adequate Temperature By-law – by Councillor Shelley Carroll, seconded by Councillor Amber Morley (June 14, 2023), online: <https://secure.toronto.ca/council/agenda-item.do?item=2023.MM7.8>

- Customer Experience and Municipal Licensing & Standards to report back to the Planning and Housing Committee by the first quarter of 2024 on how to improve data collection and analysis capacity as it relates to extreme temperatures in rental housing.

We urge Toronto City Council to ensure that these reports are presented to committee as soon as possible for feedback and implementation.

5. Model By-Law for the City of Toronto

A maximum temperature by-law in the City of Toronto would require landlords to provide infrastructure so that tenants may cool their units either through heat pumps, air conditioning or other means, and maintain a maximum temperature of 26°C within the residential unit.

The following draft by-law combines various legal sources including *O. Reg. 517/06: Maintenance Standards*, Toronto's Municipal Code, Property Standards, § 629-38. Heating and air conditioning, Mississauga's Adequate Temperature By-Law 0110-2018, Durham's Community Adaptation Plan, and Vancouver's Omnibus Climate Emergency Building Report.

WHEREAS section 8 of the *City of Toronto Act, 2006*, S.O. 2006, c. 11, Sched. A, ("*City of Toronto Act, 2006*") authorizes the municipality to pass by-laws necessary or desirable for municipal purposes, and in particular, paragraphs 5, 6 and 8 of subsection 8(2) provide that the municipality may pass by-laws respecting the economic, social and environmental well-being of the municipality, including respecting climate change, the health, safety and well-being of persons, and the protection of persons and property;

AND WHEREAS section 366(1) of the *City of Toronto Act, 2006* authorizes the 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;

AND WHEREAS section 376(1) of the *City of Toronto Act, 2006* provides that the 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 section 385(1) of the *City of Toronto Act, 2006* provides 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 the City of Toronto 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 the *Residential Tenancies Act*, including the right to collect rent;

“qualified tradesperson” is someone who is a licensed Refrigeration and Air Conditioning Systems Mechanic or Electrician, including apprentices of the trade, as per the Skilled Trade Public Register³⁸, or someone else who is qualified to professionally install the approved cooling device.

“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;

³⁸ Skilled Trades Ontario, “Public Register Search”, (2023), online:
<https://services.skilledtradesontario.ca/STOportal/app/public-search>

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 spaces 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 dwelling unit shall have cooling equipment capable of maintaining the temperature levels required by subsection (1).

(4) Only cooling equipment approved for use by a recognized standard testing authority shall be provided in a room used or intended for use for sleeping purposes.

(5) The landlord is responsible for the safe installation of the approved cooling equipment by a qualified tradesperson.
3. Section 2 shall be implemented by the landlord within one year of the passing of this by-law.

6. Interim Recommendations

Residents in the City of Toronto need relief from the extreme heat before this upcoming 2024 summer. Along with the urgent need to implement a maximum temperature by-law in Toronto, CELA recommends the following interim and complementary measures:

1. **Implement a program to provide and install free heat-pumps or air conditioners** to income-eligible tenants and seniors in Toronto.
2. **Provide income-eligible tenants with financial support** to cover any additional, ongoing utilities costs associated with using new active cooling infrastructure.
3. Expand current funding assistance programs to **provide landlords with funding to make capital expenditures** to upgrade buildings to be energy efficient and include active cooling infrastructure. The funding *must* stipulate that the costs of these capital upgrades cannot be passed on to tenants.
4. **Direct Toronto Public Health to track heat-related death and emergency room visits** related to exposure to heat during extreme heat events.
5. **Implement emergency measures:**

- **Mandate that temporary cooling spaces** are air conditioned and available in all apartment buildings.
- **Equip public and community spaces** - such as community centres, schools and libraries - to serve as cool spaces in the most impacted communities during extreme and prolonged heat waves.
- **Provide free TTC rides on extreme heat days** to allow for mobile cooling and to make it easier for people suffering from heat to travel to cool public and community spaces.
- **Protect vulnerable tenants in case of infrastructure failures**, such as ensuring there are backup power generators for apartments so that seniors and people with mobility devices are able to leave hot apartments during a heatwave-induced power outage.