

## The Urgent Need for a Maximum Heat By-Law in Windsor



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## **1. Introduction**

The City of Windsor, like hundreds of other communities across Canada, faces a growing threat from extreme heat as a result of climate change. In November 2019, Windsor's City Council joined global peers in declaring a Climate Change Emergency, recognizing the need to protect its citizens and economy from climate impacts.<sup>1</sup> Yet despite this commitment, Windsor still has no maximum indoor temperature by-law to limit dangerous heat in residential apartments. This policy gap leaves many tenants, especially those without air conditioning, at risk of serious health impacts from heat exposure in their own homes.

Extreme heat is not just uncomfortable; it is deadly. Environment and Climate Change Canada identifies extreme heat events as the deadliest weather-related emergencies in the country, causing more fatalities on average than any other climate hazard.<sup>2</sup> As of early 2022, over 650 municipalities in Canada had declared climate emergencies, which is an acknowledgment that immediate actions are needed to reduce greenhouse gas emissions and adapt to intensifying heat, floods, and other climate impacts.<sup>3</sup> Protecting residents from extreme heat through measures like a maximum indoor temperature by-law must be a key part of Windsor's climate adaptation and public health response.

## **2. Rising Temperatures and Extreme Heat in Windsor**

Climate data shows that temperatures in Windsor and across Canada are rising at an unprecedented rate. The national average temperature has already increased by 1.7 °C from 1948 to 2016, and is projected to continue to rise an additional 1.8 °C - 6.3 °C by the end of this century.<sup>4</sup> As global temperatures climb, extreme heat waves are becoming longer, more frequent, and more intense.<sup>5</sup>

Windsor, being Canada's southernmost city, is on the front lines of this warming. It already experiences some of the country's hottest summer conditions – summer days often top 30 °C, and Windsor historically has had the highest humidex values in Canada due to its heat and humidity.<sup>6</sup> Climate projections indicate Windsor will face more extreme heat days than any other city in

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<sup>1</sup> City of Windsor, "Degrees of Change: Climate Change Adaptation Plan" (2020) at 2, online: <<http://www.citywindsor.ca/Documents/residents/environment/Climate%20Change%20Adaptation%20Plan%20-%20FINAL.pdf>>.

<sup>2</sup> Environment and Climate Change Canada, "Canada's National Adaptation Strategy: Building Resilient Communities and a Strong Economy" (1 August 2023) at 6, online: <<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy.html>>.

<sup>3</sup> Government of Canada, "National Adaptation Strategy: Action Plan" (3 June 2024), online: <<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/national-adaptation-strategy/action-plan.html>>.

<sup>4</sup> Government of Canada, "Changes in Temperature" (9 April 2019), online: <<https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/trends-projections/changes-temperature.html>>.

<sup>5</sup> Health Canada, "Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials" (2011), online: <<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/communicating-health-risks-extreme-heat-events-toolkit-public-health-emergency-management-officials-health-canada-2011.html>>.

<sup>6</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation", online: <<https://changingclimate.ca/map/windsor-assessing-heat-health-vulnerabilities-to-inform-adaptation/>>.

Ontario in coming decades. Projections indicate a steep rise in extreme heat, with days above 30°C expected to more than double by mid-century and to more than triple by the 2080s.<sup>7</sup> A recent national climate risk assessment found that Windsor is at the greatest risk in Canada for frequent extreme heat days, ranking first ahead of other hot-spot cities like Hamilton, Niagara Falls and St. Catharines.<sup>8</sup>

Since 1940, Windsor's average temperature has risen by nearly 1°C.<sup>9</sup> Looking ahead, scientists project that by 2050 Ontario's average annual temperature will climb 2.5°C to 3.7°C above the 1961–1990 baseline. Combined with forecasts that the number of days over 30°C (86°F) in Windsor could almost quadruple between 2071 and 2100, these trends raise serious health concerns.<sup>10</sup> Public health data reveals a troubling correlation: at roughly 29 °C ambient temperature, excess mortality begins to rise among Windsor's population.<sup>11</sup> In other words, when outdoor temperatures approach the mid-30s °C with humidity, deaths in Windsor increase beyond normal levels, which is a clear warning sign. With Windsor's climate on track to push well beyond that threshold regularly, the health stakes are enormous.

### **3. Extreme Heat is a Public Health Emergency**

Extreme heat is a serious public health emergency. When the human body can no longer maintain a core temperature of ~36.6 °C, heat-related illnesses and injuries occur.<sup>12</sup> These range from dehydration and heat rashes to cramps, fainting, heat exhaustion, and potentially fatal heat stroke.<sup>13</sup> Tragically, recent extreme heat events in Canada have resulted in hundreds of deaths, revealing our vulnerability.

#### **Case Study: Quebec**

In Quebec, the summer of 2018 was the hottest on record in 146 years, and 86 heat-related deaths were recorded during a severe heat wave.<sup>14</sup> Many of the victims of Montreal's 2018 heat event were seniors living alone; in fact, 8 of the 53 people who died in Montreal were residents of a

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<sup>7</sup> City of Windsor, "Degrees of Change: Climate Change Adaptation Plan" (2020) at 2, online.

<sup>8</sup> Joanna Eyquem & Blair Feltmate, "Irreversible Extreme Heat: Protecting Canadians and Communities from a Lethal Future" (April 2022) at 33, online: <<https://www.intactcentreclimateadaptation.ca/irreversible-extreme-heat-protecting-canadians-and-communities-from-a-lethal-future/>>.

<sup>9</sup> Karina Richters, "Climate Change Adaptation in Windsor, Ontario", online: <<https://www.uwindsor.ca/glier/439/climate-change-adaptation-windsor-ontario>>.

<sup>10</sup> Karina Richters, "Climate Change Adaptation in Windsor, Ontario".

<sup>11</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>12</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (7 June 2022) at 11, online: <[https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriageand-divorce/deaths/coroners-service/death-review-panel/extreme\\_heat\\_death\\_review\\_panel\\_report.pdf](https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriageand-divorce/deaths/coroners-service/death-review-panel/extreme_heat_death_review_panel_report.pdf)>.

<sup>13</sup> 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-finalreport\\_e\\_final.pdf](https://www.cpha.ca/sites/default/files/uploads/resources/climateaction/2023-11-net-zero-finalreport_e_final.pdf)>.

<sup>14</sup> Climate Data Canada, "Extreme heat waves in Québec," online: <<https://climatedata.ca/case-study/extreme-heat-waves-in-quebec/>>.

single long-term care home that lacked adequate cooling.<sup>15</sup> An evaluation found that the majority of those who died in Montreal’s heat wave did not have access to air conditioners or heat pumps and lived in urban heat island areas with lots of concrete and little shade.<sup>16</sup>

### Case Study: British Columbia

Canada’s worst climate disaster to date was the “heat dome” that struck Western Canada in late June 2021.

In British Columbia, 619 heat-related deaths occurred in one week (June 25 - July 1, 2021).<sup>17</sup> A review by the B.C. Coroner found 98% of those 619 people died indoors in their homes.<sup>18</sup> Over 90% of the victims were over the age of 60, and over 67% of decedents were over the age of 70.<sup>19</sup> The deaths were concentrated in socially or materially deprived neighbourhoods with older, poor-quality housing, which are conditions that allowed indoor temperatures to climb to lethal levels.<sup>20</sup> The Chief Coroner’s report explicitly identified sustained high indoor temperatures as the primary cause of death in the 2021 heat disaster.<sup>21</sup> During the heat dome, outdoor temperatures might drop a bit overnight, but trapped heat kept indoor temperatures dangerously high. The B.C. Centre for Disease Control warned that people were most in danger when indoor temperatures stayed above 26 °C throughout the multi-day heat wave.<sup>22</sup>

The federal government’s new National Adaptation Strategy identifies extreme heat events as among the most acute climate-related health threats to Canadians, and sets a goal to eliminate all heat-related deaths by 2040.<sup>23</sup> As our climate warms, extreme heat can quickly turn deadly without adequate protections in place.

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<sup>15</sup> 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](https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/BilanCanicule2018VF.pdf)>.

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

<sup>17</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (7 June 2022) at 11.

<sup>18</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (7 June 2022) at 17.

<sup>19</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (7 June 2022) at 13.

<sup>20</sup> Government of British Columbia, “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” (7 June 2022) at 29.

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

<sup>23</sup> Environment and Climate Change Canada, “Canada’s National Adaptation Strategy: Building Resilient Communities and a Strong Economy” (1 August 2023) at 23.

#### **4. Why Indoor Cooling and a Maximum Heat By-law Are Essential**

During extreme heat events, the safest place should be one's home. Nearly 70% of Canadians spend the majority of their time indoors at home;<sup>24</sup> a number that has increased even further during the COVID-19 work-from-home era. This means our housing conditions and whether we have cooling, ventilation, insulation, and shade often determine our exposure to heat. Tenants, in particular, are among the most heat-vulnerable. They often live in older apartment buildings or high-rise buildings that lack air conditioning and cannot be easily cooled, and they typically do not have the authority to install central air conditioning or high-powered AC units on their own.<sup>25</sup> Many lower-income tenants also cannot afford the higher electricity costs of running AC if they have it, or they live in units where window ACs are impractical or even prohibited.

##### ***Cooling Rooms or Cooling Centers are Inadequate***

Researchers looked at the physiological impacts of temporary periods of cooling during a heatwave and determined that the benefits of temporary cooling were transient. In a simulated 9-hour heat wave, older adults who had access to air conditioning for two hours saw temporary benefits but ultimately their core body temperatures were statistically equivalent with older adults who did not access air conditioning when they returned to a hot environment.<sup>26</sup>

A recent systematic literature review in *Oxford Open Climate Change* concluded:

“Mechanistically, cooling centres have intuitive appeal as an intervention to protect public health during adverse hot weather. ... However, the available data did not allow the authors to identify how long or at what time of day a visit to cooling environment was most effective (considering the potential dangers of nighttime heat stress) or how to promote use of cooled spaces (especially by the most vulnerable). Whilst we know cool environments reduce heat stress it is not clear that cooling centres are an effective, efficient or equitable means to achieve this for a given population, especially with regards to protecting those most vulnerable to adverse heat.” [emphasis added]<sup>27</sup>

Public cooling centers, such as libraries, community centers, or malls, are not an adequate solution to extreme heat on their own, especially for people with disabilities, mobility challenges, or those without reliable access to transportation.<sup>28</sup> The British Columbia Coroner's Report found that

<sup>24</sup> Carlyn J. Matz et al., “Effect of Age, Season, Gender and Urban-Rural Status on Time-Activity: Canadian Human Activity Pattern Survey 2 (CHAPS 2)” (2014) 11:2 International Journal of Environmental Research and Public Health.

<sup>25</sup> ACORN Tenant Union, “Engaging Tenants in Climate Action” (July 2024), online: <<https://acorncanada.org/wp-content/uploads/2024/07/Ottawa-Climate-Report-2024.pdf>>.

<sup>26</sup> Robert D. Meade et al., “Efficacy of Cooling Centers for Mitigating Physiological Strain in Older Adults during Daylong Heat Exposure: A Laboratory-Based Heat Wave Simulation” (2023) 131:6 Environmental Health Perspectives.

<sup>27</sup> Charles Dearman et al., “Public health effectiveness of cooling centres during periods of adverse hot weather: a systematic literature review” (2025) 5:1 Oxford Open Climate Change.

<sup>28</sup> Brishti Basu, “They were trying to figure out how to stay alive: Disability advocates slam heatwave response” (7 June 2022), online: <<https://www.capitaldaily.ca/news/disability-advocates-slam-heatwave-response>>.

people with mobility issues may not be able to access cooling centres. Solutions must focus on cooling for people who cannot easily leave their residences for health or mobility reasons.<sup>29</sup>

Moreover, cooling centers do nothing to help people cope with stifling indoor heat at night, when they need to sleep. Advocates for the residents of long-term care facilities and other seniors' homes called common cooling areas "effectively useless", since most residents stay in their rooms.<sup>30</sup>

### ***Indoor Cooling Standards of 26 °C Must Apply to all Rental Units***

A maximum temperature by-law would address this gap by requiring landlords to provide and maintain a safe level of cooling in rental homes, essentially the mirror image of municipal minimum heat standards that protect tenants in winter.

Windsor's property standards by-law, *By-Law Number 9-2019*, sets a minimum temperature standard for every dwelling and dwelling unit of 22 °C.<sup>31</sup> There is no equivalent maximum temperature standard for dwellings.

The provincial *Residential Tenancies Act* designates heat as a "vital service" that must be supplied to rental units during cold months.<sup>32</sup> However, air conditioning or cooling is *not* defined as a vital service, and there is no equivalent requirement to keep indoor temperatures below a maximum threshold in hot weather.

Medical research supports setting a specific temperature limit. 26 °C (about 79 °F) is widely cited by health experts as the maximum safe indoor temperature for vulnerable populations. For example, during the 2021 heat disaster, B.C. officials observed that injuries and deaths spiked when indoor temperatures remained over 26 °C throughout the heat event.<sup>33</sup> Research from New York City has linked indoor heat (and high humidity) above 26 °C to increased emergency calls for cardiac and breathing distress.<sup>34</sup> Other studies have documented worsened agitation and cognitive impairment in dementia patients when room temperatures exceed roughly 26 °C, and even healthy seniors show reduced strength and balance at 27 °C indoor environments.<sup>35 36</sup>

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<sup>29</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (7 June 2022) at 11.

<sup>30</sup> Katherine DeClerq, "All Ontario long-term care homes now have air conditioning, but not all have them in resident rooms" (27 May 2021), online: <<https://toronto.ctvnews.ca/all-ontario-long-term-care-homes-now-have-air-conditioning-but-not-all-have-them-in-residentrooms>>.

<sup>31</sup> City of Windsor, by-law No 9-2019, *A By-Law to Establish Standards for the Maintenance and Occupancy of All Property in the City of Windsor* (2019), s 3.5.

<sup>32</sup> *Residential Tenancies Act, 2006*, SO 2006, c 17; *Maintenance Standards*, O Reg. 517/06, s 15.

<sup>33</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (7 June 2022) at 22.

<sup>34</sup> C.K. Uejio et al., "Summer indoor heat exposure and respiratory and cardiovascular distress calls in New York City, NY, US." (2016) 26:4 *Indoor Air*.

<sup>35</sup> Federico Tartarini et al., "Indoor Air Temperature and Agitation of Nursing Home Residents with Dementia" (2017) 32:5 *American Journal of Alzheimer's Disease & Other Dementias*.

<sup>36</sup> Ulrich Lindemann et al., "Effect of Indoor Temperature on Physical Performance in Older Adults during Days with Normal Temperature and Heat Waves" (2017) 14:2 *International Journal of Environmental Research and Public Health*.

The B.C. Coroner recommended 26 °C indoors as a critical benchmark.<sup>37</sup> In short, indoor heat above 26 °C can be dangerous, and tenants should not be forced to endure it for prolonged periods. A maximum heat by-law would oblige landlords to take reasonable measures to keep apartments at safe temperatures during hot weather. This kind of requirement can prevent tragedies.

## **5. Windsor's Unique Vulnerabilities: Why Windsor Needs a Maximum Heat By-law**

All communities face challenges from extreme heat, but Windsor is especially at risk due to a combination of climate, housing, and demographic factors. Geographically, Windsor's location in the Great Lakes region gives it a humid continental climate that can produce oppressive humidity and high nighttime temperatures during heat waves.<sup>38</sup>

The city's dense urban areas also suffer from the Urban Heat Island (UHI) effect where concrete and asphalt trap heat, making some neighborhoods significantly hotter than outlying areas with more greenery.<sup>39</sup> In fact, heat mapping studies have documented pronounced UHIs in the Windsor-Detroit region and along the urban corridor stretching to Toronto.<sup>40</sup> These hot zones often overlap with areas of socioeconomic disadvantage, compounding the risks.

A comprehensive Heat Vulnerability Assessment for the City of Windsor, completed in 2011 with support from Health Canada, found that people living in Windsor are vulnerable to extreme heat and that proactive measures are needed.<sup>41</sup> The assessment identified several key factors that heighten Windsor's risk:

- **High rates of chronic illness:** Compared to Ontario and Canada as a whole, Windsor's population has higher prevalence of conditions like high blood pressure, diabetes, asthma, heart disease and obesity.<sup>42</sup> These health issues make individuals more susceptible to heat-related complications, as their bodies are less able to cope with heat stress. Sadly, many of the same chronic illnesses are among the leading causes of vulnerability for heat fatalities (e.g. cardiovascular disease, respiratory illness).<sup>43</sup>
- **Large population of seniors and social isolation:** Windsor is home to many older adults, some living alone, some in assisted-living or long-term care, who are particularly sensitive

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<sup>37</sup> Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (7 June 2022) at 22.

<sup>38</sup> Laura De Carolis, "The Urban Heat Island Effect in Windsor, ON: An Assessment of Vulnerability and Mitigation Strategies" (August 2012) at 1, online: [https://www.citywindsor.ca/Documents/residents/environment/environmental-master-plan/topics-of-interest/UHIE\\_Report%20final.pdf](https://www.citywindsor.ca/Documents/residents/environment/environmental-master-plan/topics-of-interest/UHIE_Report%20final.pdf) citywindsor.ca>.

<sup>39</sup> Laura De Carolis, "The Urban Heat Island Effect in Windsor, ON: An Assessment of Vulnerability and Mitigation Strategies" (August 2012) at 1.

<sup>40</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>41</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>42</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>43</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

to heat.<sup>44</sup> Social isolation is a known risk factor; people who do not have family or community regularly checking on them can succumb to heat in their homes without anyone realizing until it is too late.<sup>45</sup> Ensuring safe indoor conditions is crucial for protecting seniors in Windsor.

- **Housing quality and lack of cooling in homes:** Perhaps most striking, the vulnerability assessment noted that out of approximately 4,728 community housing units in Windsor-Essex (publicly managed social housing), the vast majority do not have air conditioning.<sup>46</sup> These units are home to thousands of low-income individuals and families, many of whom are seniors or have disabilities. Without AC, these residents are at extreme risk of indoor heat injury. Many older multi-unit buildings in Windsor were constructed when central AC was not standard; window AC units are not provided by landlords and may be insufficient in severe heat. The lack of other cooling amenities in the public realm, such as very few water fountains or misting stations in parks, can also increase health risks during heat waves for people who cannot easily cool off at home.<sup>47</sup>
- **Economic and social factors:** Windsor has faced economic hardships over the years which contribute to pockets of poverty.<sup>48</sup> Lower-income residents may be unable to afford running portable air conditioners or may live in substandard housing. Language barriers, mental health issues, or lack of awareness can prevent some individuals from accessing cooling centers or understanding heat warnings.<sup>49</sup> Additionally, Windsor's position on the U.S. border means the city hosts large summertime events (festivals, fireworks, sports tournaments, etc.) that attract crowds. A heat wave during one of these events could expose not only locals but also thousands of visitors to dangerous conditions.<sup>50</sup> This adds urgency for the city to have strong heat response measures in place.

A maximum temperature by-law is so urgently needed in Windsor because it directly targets overheated housing, one of the city's critical climate vulnerabilities.

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<sup>44</sup> Government of Canada, "Economic profile: Windsor (CMA), Ontario" (24 April 2025), online: <<https://www.canada.ca/en/immigration-refugees-citizenship/campaigns/immigration-matters/local-economies/windsor.html>>.

<sup>45</sup> Health Canada, "Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials" (2011).

<sup>46</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>47</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>48</sup> Statistics Canada, "Chart 4 – Households in Southern Ontario most likely to report difficulty meeting financial needs" (3 November 2023), online: <<https://www150.statcan.gc.ca/n1/daily-quotidien/231103/cg-a004-png-eng.htm>>.

<sup>49</sup> Health Canada, "Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials" (2011).

<sup>50</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

## **6. Windsor's Climate Action and Policy Context**

Windsor has conducted climate adaptation planning for many years, and a maximum heat by-law would complement and strengthen those ongoing efforts. Notably, Windsor was one of the first municipalities in Ontario to develop a climate adaptation plan in 2012, recognizing early on that preparing for climate impacts was essential.<sup>51</sup> That initial plan, and its 2020 update, include a variety of actions aimed at building a resilient and livable community in the face of climate extremes.<sup>52</sup> For example, Windsor's Adaptation Plan outlines measures to expand green infrastructure like trees and cool roofs to mitigate the urban heat island, to improve emergency preparedness for heat waves, and to educate the public on heat illness prevention.<sup>53</sup>

Under Action 7.9 of the plan, the city and the Windsor-Essex County Health Unit have been working to enhance communication and education around the impacts of extreme heat on human health.<sup>54</sup> The City and Health Unit have also maintained the "Stay Cool Windsor-Essex" Heat Alert and Response System (HARS) since 2011.<sup>55</sup> This system establishes criteria for declaring heat warnings and emergency heat alerts, and it coordinates the opening of cooling centers, extended pool hours, splash pads, and dissemination of safety information when extreme heat hits. The HARS program, which was officially adopted in 2011 after the vulnerability assessment, also maps out "places to stay cool" and identifies populations that require outreach during heat events.<sup>56</sup>

However, none of Windsor's current strategies ensure that people's own dwellings remain at a safe temperature, though it is increasingly clear that filling this policy gap is necessary.

A by-law could be integrated with Windsor's existing enforcement of property standards and building maintenance. For instance, during heat warnings, by-law officers or public health inspectors could respond to complaints of excessive indoor heat in rental buildings, just as they do for lack of heat complaints in winter. Additionally, the City could pair the by-law with support programs to help landlords and low-income housing providers install cooling equipment, for instance leveraging provincial or federal grants for energy-efficient heat pumps, which provide cooling in summer and heating in winter). Crucially, it would shift responsibility onto building owners to ensure safe living conditions, rather than placing the full burden on individuals to seek relief or risk serious health outcomes.

## **7. Model By-Law for the City of Windsor**

Under Ontario's *Municipal Act, 2001* and the *Building Code Act*, cities have broad powers to pass by-laws concerning the economic, social and environmental well-being of the municipality, including respecting climate change, the health, safety and well-being of persons, and to regulate

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<sup>51</sup> Karina Richters, "Climate Change Adaptation in Windsor, Ontario".

<sup>52</sup> Karina Richters, "Climate Change Adaptation in Windsor, Ontario".

<sup>53</sup> City of Windsor, "Degrees of Change: Climate Change Adaptation Plan" (2020) at 51.

<sup>54</sup> City of Windsor, "Degrees of Change: Climate Change Adaptation Plan" (2020) at 82.

<sup>55</sup> Canada in a Changing Climate, "Windsor: Assessing Heat-health Vulnerabilities to Inform Adaptation".

<sup>56</sup> Windsor-Essex County Health Unit, "Heat Warnings" (2025), online: <<https://www.wechu.org/your-environment/heat-warnings-and-extended-heat-warnings>>.

property standards.<sup>57</sup> The courts have upheld that municipalities can act on environmental and health concerns as part of their general welfare powers.<sup>58</sup> Indeed, many cities like Windsor already mandate minimum heat standards, and some municipalities have implemented maximum temperature rules for certain types of housing. A Windsor by-law would be firmly grounded in this existing legal framework.

A maximum temperature by-law in the City of Windsor 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 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.

**WHEREAS** sections 8, 9 and 10 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 10(2) provide that a single-tier 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 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;

**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** the City of Windsor considers it necessary to regulate cooling in all rented or leased dwellings.

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<sup>57</sup> *Municipal Act, 2001*, SO 2001, c 25, ss 8, 10, and 11; *Building Code Act, 1992*, SO 1992, c 23, ss 15.1(3), 15.2.

<sup>58</sup> *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)*, 2001 SCC 40 (CanLII); *CroplifeCanada v. Toronto (City)*, 2005 CanLII 15709 (ONCA); *Kenora (City) v. Eikre Holdings Ltd.*, 2018 ONSC 7635 (CanLII).

## 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 Register,<sup>59</sup> 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;

## 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.

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<sup>59</sup> Skilled Trades Ontario, “Public Register Search” (2023), online:  
<<https://services.skilledtradesontario.ca/STOportal/app/public-search>>.

(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 bylaw.

## **8. Conclusion and Recommendations**

Windsor is experiencing a hotter, more dangerous climate reality. The science is unequivocal that without adaptation, extreme heat will exact a growing toll on the city's residents, especially the most vulnerable. A maximum indoor temperature by-law is a necessary step to protect public health in the face of this threat.

We recommend that the City of Windsor draft and adopt a Maximum Temperature By-law for rental housing by the next summer season. Key elements should include:

- A definition of “adequate and suitable cooling”, e.g. an indoor air temperature at or below 26 °C, measured 1.5 m off the floor, not near a window;
- Requirements for landlords to provide and maintain cooling systems; and
- An effective enforcement mechanism with fines for non-compliance.

The City should also pass complementary policies such as: financial incentives or grants to help landlords retrofit buildings with energy-efficient cooling like heat pumps, which would support both climate adaptation and mitigation goals; a targeted program to install free or subsidized heat pumps or air conditioners for low-income and elderly tenants, building on models used in some jurisdictions; and expansion of tree planting and green infrastructure programs to systematically cool hot neighborhoods over time. Public communication will be important as well, as tenants need to know their rights under the new by-law and how to seek help if their unit becomes dangerously hot, and landlords should be educated on compliance and available support.

In the face of increasingly extreme summer weather, every person should be safe in their homes. By requiring landlords to maintain safe temperatures in rental units, Windsor can ensure that every resident has a basic level of protection during heat waves, akin to the protection we take for granted against freezing indoor temperatures in winter.