



**CITY OF HAMILTON**  
**PUBLIC HEALTH SERVICES**  
 Healthy Environments Division

<b>TO:</b>	Mayor and Members Public Health Committee
<b>COMMITTEE DATE:</b>	April 29, 2024
<b>SUBJECT/REPORT NO:</b>	Heat Response Strategy (BOH24010) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	Matthew Lawson (905) 546-2424 Ext. 5823 Sally Radisic (905) 546-2424 Ext. 5549 Shelley Rogers (905) 546-2424 Ext. 1275
<b>SUBMITTED BY:</b>	Kevin McDonald Director, Healthy Environments Division Public Health Services
<b>SIGNATURE:</b>	

### RECOMMENDATION

- (a) That the Heat Response Strategy attached as Appendix “A” to Report BOH24010, with the exception of Action Numbers 6, 7, 9 and 10 be approved;
- (b) That the Hamilton Paramedic Service report to the General Issues Committee regarding the operational feasibility of having the Mobile Integrated Health program increase outreach and wellness checks to clients during periods of extreme heat (Action Number 6);
- (c) That the Director of Environmental Services, Public Works report to the General Issues Committee regarding the feasibility of installing shade structures in areas identified using heat and equity mapping, and the installation of misting stations in priority locations (Action Numbers 7 and 9); and,
- (d) That the Director of Transit, Public Works report to the General Issues Committee regarding the operational feasibility of offering free or discounted transportation during heat warnings and extended heat warnings to act as cooling places (Action Number 10).

### EXECUTIVE SUMMARY

In May 2023, Public Health Services indicated it would bring more information regarding a Community Heat Response Strategy to the Public Health Committee (see Public

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OUR Mission: To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner.

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Health Committee Report BOH23019). The Community Heat Response Strategy (see Appendix “A” to Report BOH24010) consists of ten actions building on the City’s annual Heat Response Plan (see Appendix “B” to Report BOH24010) with the first five heat-related interventions already in practice along with the last five “new” interventions for Committee’s consideration moving forward.

**Alternatives for Consideration – See Page 5**

**FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

Financial: Not Applicable.

Staffing: Not Applicable.

Legal: Not Applicable.

**HISTORICAL BACKGROUND**

At the May 1, 2023 Public Health Committee Meeting, Public Health Services indicated it would bring more information regarding a Community Heat Response Strategy for 2024-2027 to the Public Health Committee in Q1 2024 (see Public Health Committee Report BOH23019).

**POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

The Community Heat Response Strategy aligns with mandated work for Public Health Services as outlined in the Ontario Public Health Standards’ “Healthy Environments” program standard. Additionally, this recommendation aligns with Council’s direction at the “Special” Public Health Committee Meeting on May 15, 2023:

“That staff in the Licensing and By-law Services Division be directed to prepare an Information Report for Q4 2023 identifying the 2024 priorities and timelines for the development of “new” by-laws, including an Adequate Temperature By-law and report back to the Planning Committee”.

**RELEVANT CONSULTATION**

Throughout the development of the Community Heat Response Strategy, consultation and engagement occurred with staff across relevant City divisions, as well as local community partners providing services to individuals disproportionately impacted by extreme heat, through the Extreme Heat Working Group including the following members:

- Association of Community Organizations for Reform Now (ACORN);

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- Accessibility Committee for Persons with Disabilities;
- Canadian Health Association for Sustainability and Equity;
- City Housing Hamilton;
- City of Hamilton, Housing Services;
- City of Hamilton, Office of Climate Change Initiatives;
- City of Hamilton, Parks and Cemeteries;
- City of Hamilton, Public Health Services;
- City of Hamilton, Recreation;
- Environment Hamilton;
- Hamilton 350;
- Hamilton and District Apartment Association;
- Hamilton Community Legal Clinic;
- Hamilton Public Library;
- Hamilton Roundtable for Poverty Reduction;
- Hamilton Street Railway (HSR);
- Native Women's Centre;
- Salvation Army;
- Seniors Advisory Committee;
- Victorian Order of Nurses (VON);
- Wesley; and,
- YWCA Hamilton.

## **ANALYSIS AND RATIONALE FOR RECOMMENDATION**

The City of Hamilton Climate Science Report<sup>1</sup> predicts that the number of consecutive days that the temperature rises above 30°C will increase and that heat waves, defined as three days or more where the temperature is over 30°C or 40 on the humidex scale, will be more frequent, as well as temperatures over 35°C. Further, research has identified increases in temperature-related mortality with future climate change impacts along with the need for urgent action.<sup>2</sup>

Health Canada (2022) has identified that at-risk groups for extreme heat events include older adults, low-income earners, people with chronic illnesses (i.e., breathing problems, mental illness, heart problems).<sup>3</sup> Moreover, the Hamilton Paramedic Service

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<sup>1</sup> City of Hamilton Climate Science Report.

<https://www.hamilton.ca/sites/default/files/2022-10/climate-change-impact-adapatationplan-science-report.pdf>

<sup>2</sup> Hebbert et al., 2023. Future temperature-related excess mortality under climate change and population aging scenarios in Canada. Canadian Journal of Public Health. 114:726–736. <https://link.springer.com/article/10.17269/s41997-023-00782-5>

<sup>3</sup> Health Canada. 2022. Extreme heat events: Health risks and who is at risk of extreme heat events. <https://www.canada.ca/en/health-canada/services/climate-change-health/extreme-heat/who-is-at-risk.html>

through their Mobile Integrated Health Program provide on-site advanced medical assessments, treatment, and coordination of care, addressing various health concerns impacting the at-risk populations identified above by Health Canada.<sup>4</sup> Given their existing successful Mobile Integrated Health program and expertise, there is opportunity for the Hamilton Paramedic Service to increase outreach and wellness checks to clients during periods of extreme heat and leverage current services.

Additionally, research has found that misting stations had cooling effects in skin temperature as both measured and reported by study participants in various parts of the world including: Arizona, the United States of America; Antofagasta, Chile; Rome and Ancona, Italy, and Osaka, Japan.<sup>5</sup> Hence, the City of Vancouver, British Columbia has also provided misting stations as a cooling intervention for their population which are easily located and accessed via a mapping tool on their website.<sup>6</sup> Hence, misting station implementation as a cooling intervention could be added to Hamilton's existing cool places map on the city's website providing cooling effects to Hamilton's population during extreme heat events.<sup>7</sup>

Further, in an effort to provide access to cooling interventions (e.g. recreation centres, libraries, public pools, misting stations, etc.) and recognizing that transportation is often a barrier<sup>8</sup> particularly for people disproportionately impacted by extreme heat including the at-risk population identified by Health Canada, there is a need to consider free or discounted transportation during heat warnings and extended heat warnings to cool places.

Therefore, ten Community Heat Response Strategy actions were identified via research evidence<sup>9</sup> and consultation with staff across relevant City divisions, as well as local

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<sup>4</sup> Hamilton Paramedic Service 2022 Annual Report.

[https://www.hamilton.ca/sites/default/files/2023-08/emergency\\_hps-annual-report-2022-final\\_0.pdf](https://www.hamilton.ca/sites/default/files/2023-08/emergency_hps-annual-report-2022-final_0.pdf)

<sup>5</sup> Black-Ingersoll et al., 2022. A Literature Review of Cooling Center, Misting Station, Cool Pavement, and Cool Roof Intervention Evaluations. *Atmosphere*. 13(7).

<https://www.mdpi.com/2073-4433/13/7/1103>

<sup>6</sup> City of Vancouver, British Columbia. 2023. Stay safe in the summer heat.

<https://vancouver.ca/home-property-development/hot-weather.aspx>

<sup>7</sup> City of Hamilton. 2023. Heat Warnings and Health-Related Illness.

<https://www.hamilton.ca/people-programs/public-health/environmental-health-hazards/heat-warnings-heat-related-illness>

<sup>8</sup> Widerynski, S. et al., 2017. The Use of Cooling Centers to Prevent Heat-Related Illness: Summary of Evidence and Strategies for Implementation. *Climate and Health Technical Report Series*, Climate and Health Program, Centers for Disease Control and Prevention. <https://www.cdc.gov/climateandhealth/docs/UseOfCoolingCenters.pdf>

<sup>9</sup> Institute for Health Economics, Alberta Canada. 2022. Adaptation Strategies for Reducing Extreme Heat Health Impacts: A Rapid Review.

community partners providing services to individuals disproportionately impacted by extreme heat, through the Extreme Heat Working Group. The first five Community Heat Response Strategy actions are interventions already in practice and the last five are “new” interventions to be considered for implementation moving forward (see Appendix “A” to Report BOH24010).

**ALTERNATIVES FOR CONSIDERATION**

Public Health Committee may direct staff to revise any of the Community Heat Response Strategy actions (i.e. Action 1 through Action 10 in Appendix “A”), including a further examination of additional interventions.

**APPENDICES AND SCHEDULES ATTACHED**

Appendix “A” to Report BOH24010:	City of Hamilton Community Heat Response Strategy 2024
Appendix “B” to Report BOH24010:	City of Hamilton Community Heat Response Plan March 2024

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<https://www.ihe.ca/publications/adaptation-strategies-for-reducing-extreme-heat-health-impacts-a-rapid-review>