

CITY OF TORONTO

HOT WEATHER RESPONSE FRAMEWORK
(2019)

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SECTION 1 INTRODUCTION

1.1 General

The summer season begins on May 15 and ends on September 30 each year. The City of Toronto's Hot Weather Response (HWR) Framework is its protocol for hot weather response. Since 2000, the Hot Weather Response Committee, chaired by Toronto Public Health (TPH), has developed, monitored and sought to improve Toronto's response to hot weather. Committee members consist mainly of key partners who provide direct services under the HWR Framework. Each year, the HWR Committee has a pre-season meeting to confirm the coordination and implementation of the HWR Framework and a post-season de-brief to review the effectiveness of the response during the summer season.

The HWR Framework is a living document and is reviewed and up-dated on an annual basis. An electronic version of the framework is provided to HWR Committee members, in addition to being posted on the City of Toronto website. It is the responsibility of each Committee member to ensure all those involved in the response are familiar with the current response activities.

In the event of a severe and prolonged heat event, additional actions may be implemented at a divisional or corporate level under the provisions of TPH's or the City's Emergency Plan.

1.2 Purpose

The HWR Framework outlines the implementation and coordination of hot weather response activities with a focus on reducing the negative health impacts of extreme heat.

1.3 Vulnerability

Everyone is vulnerable to the effects of extreme heat, but some people are more at risk than others. These groups of people include socially isolated seniors, people who are unemployed or underemployed, recent immigrants and people whose first language is not English. Other at-risk groups include people with chronic and pre-existing illnesses, people who are not acclimatized to hot weather, children, outdoor workers and people who are marginally housed or experiencing homelessness.

TPH and Environment and Climate Change Canada estimate that heat contributes to an average of 120 premature deaths per year in the City. Based on the Climate Drivers Study, as Toronto experiences hotter days and longer heat episodes, the impact of heat on health is expected to increase.

1.4 Background and History

Toronto's Hot Weather Response System was initially established in 1999 and at that time used humidex as a threshold for calling alerts. A forecast humidex of at least 40 would have resulted in the issuance of a Heat Alert. Due to the unpredictability and changing nature of humidex, from 2000 to 2001, TPH collaborated with the Toronto Atmospheric Fund and the University of Delaware to develop a Heat Health Alert System expressly for Toronto, based on a complex synoptic system. Heat Alerts were issued when weather conditions suggested that the likelihood of a high level of mortality was between 25 and 50 percent greater than what would be expected on a typical day. Extreme Heat Alerts were issued when weather conditions

suggest that the likelihood of a high level of mortality was at least 50 percent greater than what would be expected on a typical day.

In the summer of 2015, TPH participated in a pilot of the Provincial Harmonized Heat Alert and Response System (HARS). Heat Alerts were called when Environment Canada issued a Level 2 warning. A level 2 warning was indicative of two consecutive days with daytime high temperatures $\geq 31^{\circ}\text{C}$, together with overnight low temperatures $\geq 20^{\circ}\text{C}$, or Humidex values ≥ 40 . Extreme Heat Alerts were called when Environment and Climate Change Canada's Level 2 warning extended beyond 2 days.

With the pilot being successful, a Provincial Heat Warning and Information System (HWIS) was fully implemented in 2016 for all public health units in Ontario. To be consistent with the other health units in Ontario, as well as Environment and Climate Change Canada, the terminology used to refer to the alerts was changed to Heat Warnings and Extended Heat Warnings.

1.5 What's New

Evidence demonstrates that heat is growing in intensity and heat waves are more frequent and longer in duration due to climate change. In 2019, the City of Toronto Board of Health recommended that the City transition its hot weather response activities to an all-summer approach. An all-summer approach will promote the City's resilience to heat and climate change in the long-term.

In 2019, the City will be strengthening its response to hot weather. Rather than issuing a separate Heat Warning, to avoid duplication, the City will amplify Environment and Climate Change Canada's Heat Warnings via social media, traditional media, and internal networks. TPH will share early heat warning notifications from Environment and Climate Change Canada with partners, and will encourage all City partners and stakeholders to regularly check the Environment and Climate Change Canada website for forecast and warning information. TPH will also promote the use of Environment and Climate Change's WeatherCAN application (downloadable on mobile devices) for up-to-date information on the issuance of heat warnings.

As a part of transitioning to an all summer approach, emphasis will be on providing heat relief through familiar, public locations closer to where vulnerable people are located. Rather than operating occasional Cooling Centres that are only open on Heat Warning days, the public can access approximately 270 cool spaces in the City of Toronto's Heat Relief Network, which is coordinated by TPH. The Heat Relief Network includes libraries, community centres and pools, some Civic Centres and City facilities, drop-ins, and several private and non-profit organizations, including some shopping malls and YMCA locations. These are available during their regular business hours and will be actively promoted to the public seeking relief from the heat. Shelters and 24-Hour Respite centres are also available for individuals experiencing homelessness. An interactive online map will direct residents to these numerous cool spaces and information on hot weather and health at www.toronto.ca/keepcool.

To better reach vulnerable populations in hot weather, a proactive outreach initiative will be piloted for the summer of 2019. Staff with lived experience of homelessness will engage with

people in areas around the drop-in centres, shelters, and 24-hour respite sites to provide information about tips to "beat the heat," refer people to nearby locations that provide a cool space, and connect people with additional resources and referrals as needed. This pilot will be reviewed and recommendations made in fall 2019.

Information about heat and health will be further promoted through distribution of educational resources to community-based partners and members of the Heat Relief Network, as applicable. TPH is also implementing a neighbour-checking pilot program at targeted locations.

Responding to hot weather requires a collaborative and coordinated approach across the City and its partners, and TPH will continue to engage relevant partners in preparation for and throughout the upcoming 2019 summer season.

1.6 Authority

The current authority for implementing the HWR Framework is provided through the noted City of Toronto Council directive. It states that "the Hot Weather Response Plan piloted in 2001 be implemented on an annual basis and the appropriate City officials be authorized and directed to take the necessary steps to give effect thereto" (*Clause No.1 Report No.3 of the Board of Health adopted by Council on April 16, 17 and 18, 2002 in accordance with the provisions of Chapter 27 of the City of Toronto Municipal Code*).

The Mayor under the provisions of the City of Toronto Municipal Code, Chapter 59 and provincial legislation, Emergency Management and Civil Protection Act has the legal authority to declare an emergency and to take necessary protective measures. Severe and prolonged hot weather may continue and be declared as an emergency. The heat event may initially be forecasted as a Heat Warning by Environment and Climate Change Canada; however, the intensity and magnitude may be such that other measures in addition to those identified in the HWR Framework would become necessary.

Chapter 59 also establishes the Toronto Emergency Management Program Committee (TEMPC) comprised of a number of key executives, including the Medical Officer of Health (MOH) who has the lead role in providing advice and direction on health-related matters. Other members of TEMPC include the Mayor, the Deputy Mayor, City Manager, the three Deputy City Managers and other senior officials.

1.7 Members of the Hot Weather Response Committee

The HWR Framework is coordinated by TPH and includes both City and community partners. HWR Committee members that provide direct services under the framework are listed below. Section 3 of the HWR Framework (Roles and Responsibilities) outlines all the pre-agreed activities for each member.

SECTION 2 OPERATIONS

2.1 Notification of Heat Warnings Issued by Environment and Climate Change Canada

The Hot Weather Response Framework is in effect from May 15 to September 30 each year. Environment and Climate Change Canada notifies public health units in advance of issuing a Heat Warning. TPH will share this early notification information that a Heat Warning will be issued with HWR Committee members so that they can plan and/or modify operations as needed in response to hot weather (e.g. increased communication with clients, promotion of nearby cool spaces, encouraging checking on neighbours). HWR participating members are responsible for notifying TPH of any changes to contact names and telephone numbers and ensuring that their own internal distribution lists are current.

When Environment and Climate Change Canada issues a Heat Warning, TPH relays that information to key partners who have major responsibilities under the HWR. In addition, the public can receive notification about Heat Warnings through Environment and Climate Change Canada's [WeatherCAN application](#). The WeatherCAN application allows the public to receive weather alert notifications in specific geographical locations as well as receive information about latest weather forecasts.

2.2 Severe and Prolonged Heat Event and / or Hot Weather Emergency

Neither a prolonged heat event nor a heat emergency is automatically triggered by a pre-determined set of weather related or other criteria. When a heat event is severe and/or prolonged, so that its effects strains the capacity of the health and social services sectors and/or has other effects such as power or water shortages, the MOH may request the Toronto Office of Emergency Management to activate the City of Toronto's Emergency Operations Centre (EOC).

The EOC coordinates the response and provides an established and recognized point of authority to coordinate response resources, personnel and incident information. The decision to escalate the municipal response to an emergency category will be taken in consultation with the MOH and other impacted City Divisions, coordinated by the Toronto Office of Emergency Management.

If the decision is made to escalate the municipal response (i.e. an emergency is declared), municipal and agency efforts will be directed by the Toronto Emergency Management Program Committee (TEMPC) Control Group as outlined in the City of Toronto Emergency Plan. The TEMPC Control Group has the authority and responsibility to initiate, co-ordinate, direct and otherwise bring about the implementation of Toronto's Emergency Plan, expend funds required to obtain and distribute emergency materials, equipment and supplies and obtain volunteer support from public agencies. See the City of Toronto Emergency Plan for further details including emergency notification levels (See City website: http://insideto.toronto.ca/oem/pdf/emergency_levels_table.pdf).

2.3 Communications

Timely and effective communication of information to the public and between participating agencies is important throughout the summer, and also when Environment and Climate Change Canada issues Heat Warnings. A number of educational resources, "Tips to Beat the Heat", have been developed and circulated with partner agencies.

The City website www.toronto.ca/keepcool (or as current) provides information about nearby cool spaces the public can access to seek relief from the heat. In addition, the City's website contains information on heat relief and provides current weather conditions. Training materials about heat and health are provided to members of the Heat Relief Network to support their communication with clients and community members. In addition, by providing HWR partners with Environment and Climate Change Canada's early notifications of Heat Warnings, partners can increase their own communications with clients.

Key spokespersons from City Divisions including Strategic Communications and Toronto Public Health, have been identified to respond to general media requests during extreme heat. Other impacted Divisions, such as Shelter, Support & Housing Division may also responds to questions from the media, as needed.

2.4 Occupational Health and Safety

The City is committed to providing and maintaining safe and healthy working conditions for all employees. Staff safety during hot weather and in particular during Heat Warnings is a priority. City employees have access to further information on how to avoid heat-related illness, which is posted on the City's internal web site by Human Resources Occupational Health and Safety. Other participating agencies and members are encouraged to provide additional information to their staff.

The City's Heat Stress Policy and related Guidelines are available at:

<http://we.toronto.ca/intra/hr/policies.nsf/9fff29b7237299b385256729004b844b/5c11533205f65f4085256988006a018a?OpenDocument>

<http://we.toronto.ca/intra/hr/policies.nsf/9fff29b7237299b385256729004b844b/8c36b99c9fa9ec0285256a8e0054e46e?OpenDocument>

SECTION 3 ROLES AND RESPONSIBILITIES

3.1 Toronto Public Health

Healthy Environments

Healthy Environments is responsible for the overall administration and coordination of the HWR Framework. Healthy Environments responsibilities include the following:

- Consult with Environment and Climate Change Canada on forecasted Heat Warnings.
- Maintain notification lists and initiate notification process to share information from Environment and Climate Change Canada.
- Chair the HWR Committee and provide overall leadership and direction regarding hot weather response.
- Develop and coordinate distribution of HWR educational resources.
- When requested by the MOH, conduct site visits to all known rooming, boarding and lodging homes during an extended heat event to confirm the implementation of the Hot Weather Protection Plan to evaluate its effectiveness and to provide Landlord packages as required.
- Investigate reports of critical incidents (possible heat related illness or death) reported to TPH from Toronto Paramedic Services.

Vulnerable Adults and Seniors Team (VAST)

The Vulnerable Adults and Seniors (VAS) Team provides public education upon request on hot weather and health through presentations during the hot weather season. The VAS team will educate all VAS program clients on how to protect themselves from extreme weather illness or injury. In addition, VAS clients deemed to be at risk of extreme weather-related illness by the VAS Public Health Nurse, will be contacted when heat warnings or emergencies from a prolonged heat event are declared.

Child Health and Development (CHD)

The Child Health and Development Directorate collaborates with organizations, communities, families, caregivers, pregnant individuals and those in their reproductive years to optimize early childhood experiences, improve outcomes for newborns and children, and reduce health inequities.

During the hot weather season, CHD staff will regularly share heat health information and resources with clients through home visits, groups (e.g. prenatal & parenting), clinics (e.g. breastfeeding, infant hearing and developmental screening), and community settings. CHD also has a targeted hot weather response by Public Health Nurses to known clients who may be at high risk of severe health impacts due to hot weather during Heat Warnings.

Performance and Standards

The Emergency Planning and Preparedness (EPP) team within TPH Performance and Standards provides emergency preparedness and business continuity planning expertise and

training. The EPP team participates in networks, partnerships and public education related to emergency management. In addition, EPP can:

- Support the application of the Incident Management System model to manage the response to a severe or prolonged heat event.
- Support the use of Emergency Management Communication Tool (EMCT), which is a communication and coordination tool amongst various healthcare sector partners (e.g. hospitals, other health units), which may be used during a severe and prolonged heat event and/or hot weather emergency.
- Support the use of Emergency Response Management System (ERMS), which can send out a mass staff notification to all of TPH Staff.
- Liaise with the Toronto Office of Emergency Management on matters related to emergency management (e.g. training, systems).

Strategic Support

Throughout the summer, TPH Strategic Support works with the MOH and other TPH staff to arrange media interviews and other communication activities related to hot weather and health, in addition to the communications role of the City of Toronto's Chief Communications Officer.

Communicable Disease Control

Upon request, the Communicable Disease Liaison Unit distributes hot weather resource packages to hospitals in Toronto, discusses content that will be displayed in emergency room and their distribution to patients seen for heat-related illness.

3.2 City Agencies, Boards, Commissions, Corporations and Divisions

Shelter, Support & Housing Administration

Shelter, Support and Housing Administration (SSHA) provides street outreach to the homeless through the Streets to Home Team and ensures ongoing coordination of street outreach services to people who are experiencing homelessness, provided by community agencies through SSHA's various funding streams. In 2019, SSHA will pilot an outreach initiative to reach vulnerable populations during hot weather.

Toronto Paramedic Services

Toronto Paramedic Services (TPS) works with TPH to provide heat relief support to higher risk areas in the City. TPS maintains the ability to act as key spokespersons for media requests, either through the Community Paramedicine Program or the After Hours On-Call Media Group.

As well, TPS reports critical incidents (death or transfer of an individual to hospital believed to be heat-related where the environmental conditions observed by the paramedic indicate possible excessive heat exposure) to TPH for investigation.

TPS maintains the ability to activate the DOC and in the event of a severe prolonged heat event would have the TPS DOC fully operational within approximately two hours to help coordinated City's Hot Weather Response.

Parks, Forestry and Recreation

Parks, Forestry and Recreation encourages people to go to city pools to cool off or stay in the shade in parks. Parks Ambassadors visit City parks to provide information with telephone numbers and locations of services where people who are homeless can go to cool down. A number of swimming pools may extend their hours based on weather conditions and resources up until August 31st each year.

Toronto Public Library

Libraries display key health messages about hot weather and heat-related illness throughout the summer. During warnings, libraries post notices about the Heat Warnings and are available as places for people to cool off and access water during regular business hours. During visits to schools to talk to children and teachers about summer library programs, library staff includes summer safety and hot weather messages in their information sessions. Libraries also actively promote educational information through the library branches to vulnerable populations through and the Home Library Service.

Office of Emergency Management

The Office of Emergency Management (OEM) maintains the Emergency Operations Centre (EOC) in a state of operational readiness. During a severe or prolonged heat event, the MOH may request that the EOC be activated. The EOC may be activated with or without a Declaration of an Emergency. However, it will be activated once an emergency declaration has been made.

Toronto Animal Services

Toronto Animal Services develops and disseminates hot weather safety messages for pet owners and attends to sick or injured stray dogs or cats if confined or immobile, and critically sick, injured or distressed wildlife if confined or immobile and attended by someone.

311 Toronto

311 Toronto offers a 24/7 telephone service to provide information about City Services and programs, including hot weather response and the Heat Relief Network.

3.3 Community Partners

Ontario Community Support Association

Members of the Ontario Community Support Association, an organization of home support agencies serving frail and isolated seniors, distributes to their clients information and education

on heat-related illness. They also participate in training on recognizing the symptoms and providing first aid for heat-related illness, and contact vulnerable clients on Heat Warning days.

Environment and Climate Change Canada

Environment and Climate Change Canada provides TPH and other City Divisions and community organizations with weather forecasts, Heat Warnings and consultation services as needed.

SECTION 4

4.1 Key Terms

Heat Warnings are issued by Environment and Climate Change Canada, when there is a forecast of two consecutive days with daytime high temperatures $\geq 31^{\circ}\text{C}$, together with overnight low temperatures $\geq 20^{\circ}\text{C}$, or Humidex values ≥ 40 .

Severe and Prolonged Heat Event / Heat Emergency

Although no specific conditions trigger this event, the magnitude or the discussions amongst City staff may be sufficient to refer to the event as such.

Abbreviations

EOC	Toronto Emergency Operations Centre
H-DOC	Health Division Operations Centre (EMS)
HWRP	Hot Weather Response Plan
HC	Healthy Communities
CHD	Child Health and Development
MOH	Medical Officer of Health
OEM	Toronto Office of Emergency Management
SS&HA	Shelter, Support and Housing Administration
TEMPC	Toronto Emergency Management Program Committee
TPH	Toronto Public Health

4.2 Attachment 2 – Hot Weather Response Committee Terms of Reference

Background

Since 2000 Toronto Public Health has coordinated hot weather response through a Hot Weather Response Plan. The Hot Weather Response Committee which is chaired by Toronto Public Health includes member organizations that may have specific roles and responsibilities outlined within the plan. The purpose of the Hot Weather Response Committee is to provide updates on services, identify issues and make recommendations regarding improvements to the plan.

Mandate

The Hot Weather Response Committee ensures that the Hot Weather Response Framework is reviewed and updated on an annual basis. The HWR Committee will:

- Review and make recommendations to changes to the Hot Weather Response Framework.
- Facilitate hot weather response communication, coordination and collaboration across divisions and member agencies.
- Identify new or emerging hot weather response issues.

Accountability

The Hot Weather Response Committee is accountable to the Board of Health, through the Medical Officer of Health.

Membership

The committee includes representation from:

- Toronto Public Health
- Toronto Paramedic Services
- Toronto Community Housing Corporation
- Toronto Parks, Forestry and Recreation
- Toronto Animal Services (Municipal Licensing & Standards)
- Toronto Public Library
- Toronto Office of Emergency Management
- Toronto Police Service
- Toronto Shelter, Support and Housing Administration

Meeting Times

The committee will meet in the spring prior to May 15th the start of the hot weather season and in the fall following September 30th the end of the hot weather season.