

# The City of Toronto's Hot Weather Response Plan (2017)



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## **SECTION 1 INTRODUCTION**

### **1.1 General**

The City of Toronto's Hot Weather Response (HWR) Plan is a protocol for hot weather response and is comprised of both proactive and reactive components. Since 2000, the Hot Weather Response Committee, chaired by Toronto Public Health (TPH), has developed, monitored and sought to improve Toronto's HWR plan. Committee members consist mainly of key partners who provide direct services under the HWR plan. Each year, the HWR committee has a pre-season meeting to confirm the coordination and implementation of the HWR plan and a post-season de-briefing to review the effectiveness of the response during Heat/Extended Heat Warnings.

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

In the event of a severe and prolonged heat event, the HWR plan also identifies actions that may be taken to escalate the response under the provisions of the City's Emergency Plan.

### **1.2 Purpose**

The purpose of the HWR plan is to provide a framework for the implementation and coordination of hot weather response activities which focus on reducing the negative health impacts of extreme heat. The plan's main objective is to alert those most at risk of heat-related illness that hot weather conditions are either imminent or currently exist, and to take appropriate precautions.

### **1.3 Vulnerability**

Everyone is vulnerable to the effects of extreme heat, but people on the lower end of the socio-economic scale tend to be disproportionately affected. These groups of people include socially isolated seniors, racialized minorities, 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 including mental illness, people who are not acclimatized to hot weather, children, outdoor workers and people who are marginally housed or homeless.

### **1.4 Background**

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 Celsius, would have resulted in the issuance of a Heat Alert. Due to the unpredictability and rapidly 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 forecast when weather conditions suggest that the likelihood of a high level of mortality is at least 50 percent greater than what would be expected on a typical day.

In May 2015, Toronto Public Health agreed to participate in a 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  $\geq 40$ . Extreme Heat Alerts were called when Environment 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 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**.

TPH and Environment Canada estimate that heat contributes to an average of 120 premature deaths per year in the City, and that the likelihood of mortality increases on each day of a heat episode. As Toronto experiences hotter days and longer heat episodes, the impact of heat on health is expected to increase.

## **1.5 Authority**

The current authority for implementing the HWR Plan 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 a heat emergency. The heat event may initially be forecasted as a Heat Warning or Extended Heat Warning, however, the intensity and magnitude may be such that other measures in addition to those identified in the HWR plan would become necessary.

Chapter 59 also establishes the Toronto Emergency Management Program Committee (TEMPC) comprised of a number of key executives, including the 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.

## **1.6 Members of the Hot Weather Response Plan**

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

## **SECTION 2 OPERATIONS**

### **2.1 Notification, Activation and Termination of the Hot Weather Response Plan**

TPH is responsible for the notification, activation and termination of the HWR plan. Following the MOH declaration or termination of a Warning, immediate notification to the public and all those participating in the response is critical. All Notification lists are continuously updated and each participating member is responsible for notifying TPH of any changes to contact names and telephone numbers and ensuring that their own internal fan-out lists are current.

There are two distinct groups that TPH notifies when a Warning is declared:

- Key Response Notification Group
- General Notification Group

#### **Key Response Notification Group**

The Key Response Notification Group consists of key partners who have major responsibilities under the HWR plan and are immediately notified by telephone or email once a warning has been declared and terminated by the MOH. The members of this group are Toronto Paramedic Services and Toronto Public Health Strategic Support.

#### **General Notification Group**

A broader list consisting of over 1000 community agencies, individuals servicing vulnerable populations, City staff and the general public receive notifications via e-mail. Individuals on this list are responsible for ensuring that their email addresses are current.

### **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 an extended heat event is severe and/or prolonged, so that its effects extend outside healthcare services and social services, such as power or water shortages, and/or strains the capacity of the health and social services sectors, the MOH will request the Toronto Office of Emergency Management to activate the City of Toronto's Emergency Operations Centre (EOC).

The EOC complements 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 from an Extended Heat Warning will be taken in consultation with the MOH and other impacted City Divisions, coordinated by the Toronto Office of Emergency Management. A prolonged heat event would primarily be a public health issue although this would need to be confirmed at the time of the event.

If the decision is made to escalate the municipal response (i.e. an emergency is declared), the City of Toronto Emergency Plan will be implemented and municipal and agency efforts will be directed by the Toronto Emergency Management Program Committee (TEMPC) Control Group. 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](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 critical during a Heat/Extended Heat Warning. TPH Communications issues media releases to outlets seven days a week whenever a Warning is called or terminated. News releases are also e-mailed to City of Toronto Strategic Communications. In addition, TPH Heat Warning website is updated to reflect the current status.

Key spokespersons from Toronto Public Health and Toronto Shelter Support and Housing Administration have been selected to respond to media requests during Heat/Extended Heat Warnings.

### **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/Extended Heat Warnings is a priority. City employees (both management and staff) 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**

#### **Medical Officer of Health**

The MOH or designate declares and terminates Heat or Extended Heat Warnings, conducts media interviews as appropriate and may request the activation of the City's Emergency Operations Centre in the event of a severe and prolonged heat emergency.

#### **Healthy Environments**

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

- Monitor, evaluate and maintain the Hot Weather Information System (HWIS)
- Notify and consult with the MOH on forecasted Heat/Extended Heat Warnings
- Maintain notification lists and initiate notification process
- Update the heat alert website
- Conduct media interviews, as appropriate
- Chair the HWR Committee and provide overall leadership and direction regarding hot weather response
- Develop and coordinate distribution of HWR educational resources
- Procure and provide TTC tokens to Shelter, Support and Housing Administration for distribution, as appropriate
- 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 Toronto Public Health from Toronto Emergency Medical Services or the Office of the Chief Coroner, Toronto Region
- Operation of the seven designated Cooling Centres

#### **Vulnerable Adults and Seniors Team (VAST)**

Vulnerable Adults and Seniors Team (VAST) provides public education on hot weather and health through seminars, presentations and displays during hot weather season. Groups targeted include seniors, home support agencies, meals on wheels and congregate dining programs and property managers of Toronto Community Housing.

#### **Child Health and Development (CHD)**

Child Health and Development Directorate provides a wide range of services for families from the prenatal period to the child's 4th birthday. This may include individual home visits, parenting groups, and TPH clinics where Heat Safety education and resources are also shared.

CHD also has a targeted response by Public Health Nurses to known clients who may be at high risk of severe health impacts due to hot weather during Heat and Extended Heat Warnings.



### **Performance and Standards**

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**

Timely and effective communication to the public and partner agencies is critical when a warning is declared. TPH Strategic Support issues media releases and provides Strategic Communications with an electronic copy of the release. They also arrange media interviews for key spokespersons and will make the necessary logistical arrangements for news conferences, as needed.

### **Communicable Disease Control**

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**

### **Toronto Shelter, Support & Housing Administration**

Shelter, Support and Housing Administration (SS&HA) issues a request that all hostels make adjustments to permit clients to occupy air-conditioned space in common areas.

SS&HA provide street outreach to the homeless through the Streets to Home Team and ensure ongoing coordination of street outreach services to people who are homeless, provided by community agencies through SS&HA's various funding streams.

### **Toronto Paramedic Services**

Emergency Paramedic Services Community Medicine Program works with TPH to utilize various forms of media in delivering messages on the potential health risk of hot weather conditions. TPS maintains the ability to act as key spokespersons for media request, either through the Community Paramedicine Program or the After Hours On-Call Media Group.

As well, TPS has agreed to report 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 H-DOC and in the event of a severe prolonged heat event would have the TPS H-DOC fully operational within a couple of hours to help coordinated City's Hot Weather Response.

### **Toronto Community Housing Corporation**

Toronto Community Housing Corporation circulates education materials and communicates with tenants to ensure they are informed about precautions to take during hot weather, including 24-hour access to air conditioned common rooms where they exist, during Heat/Extended Heat Warnings.

### **Toronto Parks, Forestry and Recreation**

Parks, Forestry and Recreation encourage people to go to city pools to cool off or stay in the shade in parks, and allow people to remain in public parks during Warnings. 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 extend their hours during Extended Heat Warnings. During alerts, community centre's post notices about the Heat/Extended Heat Warnings and are available as places for people to cool off during regular business hours selected locations operate as Cooling Centres.

### **Toronto Police Service**

The Toronto Police Service, when notified of a Heat/Extended Heat Warning, ensures that its members pay special attention to areas where vulnerable citizens at risk of heat-related illness are found and encourages them to go to a safe place.

### **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/Extended Heat Warning and are available as places for people to cool off 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.

### **Toronto 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 Medical Officer of Health 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**

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.

### **3.3 Community Partners**

#### **Office of the Chief Coroner, Toronto Region**

The Office of the Chief Coroner contacts TPH to report deaths where heat may be a contributing factor (possible heat-related deaths) identified during routine investigations within one business day. The coroner's office also confirms prior to the upcoming hot weather season to existing protocols and key contact information regarding notifications of possible heat-related deaths.

#### **Community Care Access Centres**

Community Care Access Centres identify vulnerable clients and develop response plans for them on Heat/Extended Heat Warning days and share timely information and warning notices with their respective contracted service provider organizations.

#### **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/Extended Heat Warning days.

#### **Community Health Centres**

Receive Heat/Extended Heat notifications. Individual centres may post alert notifications and contact high risk clients, provide "Beat the Heat" education and display hot weather resource materials.

#### **Change Toronto**

The City of Toronto opens Cooling Centres during Extended Heat Warnings. Cooling Centres are designated air-conditioned locations designed to allow people and their pets to escape the heat, rest, have a drink, have a light snack and get information on how to "Beat the Heat". The Cooling Centres are opened, staffed and operated under the direction of Toronto Public Health.

#### **Environment and Climate Change Canada**

Environment and Climate Change Canada provides TPH with weather forecasts, Heat Warnings and consultation services as needed.

## SECTION 4 ATTACHMENTS

### Attachment 1 - Key Terms/Abbreviations

#### Key Terms

**Heat Warnings** are issued by TPH, 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  $\geq 40$ .

**Extended Heat Warnings** are issued by TPH (from day 3 onwards) when there is a forecast of greater than 2 consecutive days with daytime high temperatures  $\geq 31^{\circ}\text{C}$ , together with overnight low temperatures  $\geq 20^{\circ}\text{C}$ , or Humidex values  $\geq 40$ .

#### **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

**Attachment 2 – Hot Weather Response Committee Terms of Reference**  
**Revised October 9, 2008**

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**Background**

Since 2000 Toronto Public Health has coordinated the response to heat events 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 Plan is reviewed and updated on an annual basis. The HWR Committee will:

- Review, evaluate and make recommendations to changes to the Hot Weather Response Plan.
- Facilitate hot weather response communication, coordination and collaboration across divisions and member agencies.
- Identify new or emerging extreme heat event 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 Community Care Access Centre
- Toronto Emergency Medical 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 15<sup>th</sup> the start of the hot weather season and in the fall following September 30<sup>th</sup> the end of the hot weather season.