

# DRAFT HEAT ALERT AND RESPONSE PLAN



#### 1.0 Introduction

Climate projections by Environment Canada indicate that the region of south-western Ontario can expect extreme heat events of increasing intensity, duration and frequency. This plan is intended to define what constitute a heat event for the Town of Amherstburg that would warrant a response by public authorities. It describes a three-tier alert structure for such events and the appropriate communications and other response protocols. It also outlines how to involve non-government organizations and community groups to improve the resiliency of specific vulnerable populations and the public-at-large to heat health impacts.

This draft document is part of a pilot project supported by Health Canada to develop a heat alert and response system for the Town of Amherstburg. This draft version of the Heat Alert and Response Plan (HARP) is dated January 2011.

## 2.0 Objectives

The goal of the HARP is to improve the resiliency among residents of the Town of Amherstburg region to extreme heat. In order to achieve this goal, the overarching objectives of this plan are to:

- Provide direction to decision makers on taking action during an extreme heat event based on the outline alert protocol.
- Educate the public about the heat health risks, notification and appropriate protective measures.
- Identify ways and means of reaching vulnerable populations concerning appropriate protective measures.
- Engage non-government organizations and community groups to support the communication and outreach strategy of the HARP.

## 3.0 Roles and Responsibilities

The following core organizations were all active participants on the Heat Alert and Response System Advisory Committee (HARSAC)

## 3.1 Amherstburg Health Unit (Lead)

Contact: Medical Officer of Health

#### **Roles and Responsibilities:**

- Monitor Environment Canada's Humidex forecast, April thru October
- Contact Environment Canada regarding special weather statements and forecasts
- Determine the appropriate heat notification level

- Contact City of Detroit to exchange information prior to and during extreme heat events
- Notify media and community partners of change in level
- Conduct debriefings after extreme heat events
- Undertake annual evaluations of the HARP in the fall
- Add webcross link button to the Town of Amherstburg Health Unit's website
- Coordinate with Detroit to develop heat-health messaging
- Execute education campaign and training

#### 3.2 Canadian Red Cross

**Contact:** Disaster Management Coordinator

#### **Roles and Responsibilities:**

- Maintain network of (respite) community partner organizations
- Conduct annual workshop to train the leadership of the community partner organizations
- Provide volunteers, including member of the First Aid Service (FAS) team to provide support

## 3.3 Town of Amherstburg Municipalities

#### 3.3.1 Corporate Communications

Contact: Municipal Marketing & Communications Officer

#### **Roles and Responsibilities:**

- Assist with the dissemination of information regarding extreme heat events
- Provide web cross link to Stay Cool Amherstburg webpage between April and October

#### 3.3.2 Environmental Master Plan Office

**Contact:** Municipal Environmental Coordinator

#### **Roles and Responsibilities**:

- Assist with the dissemination of information regarding extreme heat events
- Continue to coordinate efforts with Health Canada on heat health and other associated health issues (i.e. air quality)
- Continue to support the Heat Alert and Response Plan
- Explore adaptation strategies to build a more heat resilient community

#### 3.3.3 Fire and Rescue Services

Contact: Municipal Fire Chief or Community Emergency Management Coordinator (CEMC)

#### **Roles and Responsibilities:**

- Assist with the dissemination of information regarding extreme heat events
- Prepare first responders with heat-health messaging
- Provide web cross link to Stay Cool Amherstburg webpage between April and October

#### 3.3.4 Parks & Facility Operations and Recreation

Contact: Municipal Parks Marketing & Communications Officer

#### **Roles and Responsibilities:**

- Assist with the dissemination of information regarding extreme heat event
- Provide annual list of public facilities with air conditioning (and generators) with normal hours of operation that the general public can access if required
- Monitor the use of pools and explore options to extend hours during extreme heat events

#### 3.3.5 Police Services

Contact: Municipal Police Chief

#### **Roles and Responsibilities:**

- Assist with the dissemination of information regarding extreme heat event
- Prepare first responders with heat-health messaging

#### 3.3.6 211/311 Call Centre

Contact: Manager of 211/311 Call Centre

#### **Roles and Responsibilities:**

Assist with the dissemination of information regarding extreme heat event

#### 3.4 City of Detroit

**Contact:** Emergency Preparedness Coordinator (Department of Health & Wellness Promotion – Office of Emergency & Public Health Preparedness)

#### **Roles and Responsibilities:**

- Exchange information with the Town of Amherstburg Health Unit prior to and during extreme heat events
- Coordinate with the Town of Amherstburg Health Unit to develop heat-health messaging

## 3.5 Community Care Access Centre

Contact: Accreditation Manager

#### **Roles and Responsibilities:**

- Maintain network of (respite) community partner organizations
- Assist with the dissemination of information regarding extreme heat event

## 3.6 Town of Amherstburg

**Contact:** Emergency Management Coordinator

#### **Roles and Responsibilities:**

- Support preparedness among County municipalities and local organizations through ongoing exchange of information about heat-health and emergency response best practices
- Prepare first responders with heat-health messaging
- Provide web cross link to Stay Cool Amherstburg webpage between April and October
- Develop and organize extreme table-top simulations for local emergency response agencies, taking place as needed

### 3.7 Amherstburg EMS

Contact: Deputy Chief, Planning & Physical Resources

#### **Roles and Responsibilities:**

- · Prepare first responders with heat-health messaging
- Provide emergency medical response to the public during extreme heat events
- Report to the Medical Officer of Health the prevalence of heat-related illnesses

The sustainability and success of the HARP will be in part due to the large number of organizations that have committed to the development and implementation of this plan. A list of all community partners is listed in Appendix A.

## 4.0 Heat Alert Triggers

## 4.1 Monitoring (April thru October)



Starting in April of each year, the Town of Amherstburg Health Unit will begin monitoring the Environment Canada forecast for extreme heat events.

Environment Canada monitors both temperature and humidity. The combination of temperature and humidity reflects the perceived temperature and is reported as the Humidex reading. Environment Canada defines an extremely high

humidex reading as over 40. In such conditions, all unnecessary activity should be curtailed.

## 4.2 Heat Advisory (Level 1)



A heat advisory is intended to signal an impending heat event of particular concern for vulnerable populations, such as the elderly and children, as well as anyone who is physically active or outdoors for a prolonged period of time. It is also meant to signal to various agencies that they should be in a state of readiness for a possible escalation in the severity of weather conditions.

At this stage, EMS (Emergency Medical Services), hospitals, and selected health professionals are expected to begin regular reporting to the Medical Officer of Health on specific data for heat-related illness.

#### 4.2.1 Who activates/deactivates

The Medical Officer of Health (MOH) of the Town of Amherstburg Health Unit is responsible for activating a heat advisory Level 1.

#### 4.2.2 When

A Heat Advisory Level 1 is called when one of the following conditions are met:

1 day with a humidex forecasted above 40

#### 4.2.3 What happens

- 1) A media release along with an email blast will be sent to all community partners and any member of the public that has signed up to be notified.
- 2) For information purposes, the MOH will notify the Emergency Preparedness Coordinator from the City of Detroit Department of Health & Wellness Promotion.
- 3) EMS and area hospitals will be reminded that they are expected to report back to the Town of Amherstburg Health Unit regarding possible heat-related illnesses, for the duration of the heat advisory. These illnesses are summarized in Appendix B.
- 4) Selected pharmacists, as identified by the Amherstburg County Pharmacists Association, will submit a brief summary of their observations by email to the MOH, at the end of each day for the duration of the heat advisory.

- 5) Information from EMS, hospitals and pharmacists will be considered by the MOH in determining if and when to activate the Level 2 (Heat Warning) protocol.
- 6) The MOH will notify EMS, hospitals, and the selected pharmacists, once reporting is no longer required, based on return to normal weather conditions satisfactory to the MOH.

## 4.3 Heat Warning (Level 2)



A heat warning is designed to signal impending health risks to the public-atlarge due to a prolonged extreme heat wave. Specific actions are advised for vulnerable populations, such as visits and phone calls by community organizations. EMS and area hospitals should anticipate increased admissions and make preparations to cope. A number of other agencies

such as Canadian Red Cross, Salvation Army and Fire & Rescue, are expected to be in a state of readiness for possible impacts affecting the public-at-large.

#### 4.3.1 Who activates/deactivates

The Medical Officer of Health (MOH) of the Town of Amherstburg Health Unit (back-up: Director of Health Protection) is responsible for activating a heat warning Level 2.

#### 4.3.2 When

A Heat Warning Level 2 is called when one of the following conditions is met:

- 4 consecutive days with humidex forecasted above 40
- 1 day with a humidex forecasted above 45
- 4 days with a minimum night time humidex forecasted of 28
- Escalation of heat-health impacts

#### 4.3.3 What happens

- 1) A media release along with an email blast will be sent to all community partners and any members of the public that have signed up to be notified.
- 2) For information purposes, the MOH will notify the Emergency Preparedness Coordinator from the City of Detroit Department of Health & Wellness Promotion.
- 3) The MOH will request the Canadian Red Cross to contact community partners to confirm their continued cooperation and make any revisions to the public directory of Community Partners, as necessary.
- 4) The MOH will advise the Canadian Red Cross of the potential for a change in the alert level from Level 2 to Level 3, thereby allowing the Red Cross an opportunity to prepare for deployment of mobile cooling stations in the event of a Heat Emergency (Level 3).
- 5) The Community Emergency Management Coordinator (CEMC) will consult with Enwin Utilities and other area utililities to briefly review their disaster planning for a potential widespread power outage.

## 4.4 Heat Emergency (Level 3)



A Heat Emergency is the highest stage in the Heat wave Plan and denotes a state of emergency. This would occur when a heat wave is so severe and/or prolonged that its effects extend outside health and social care, such as power or water shortages, and/or where the capacity of health and social care systems to respond is threatened.

#### 4.4.1 Who activates/deactivates

The Head of the respective municipal Council (Mayor or alternate), in consultation with members of the Community Control Group (CCG), which includes: Chief Administrative Officer (CAO), Community Emergency Management Coordinator (CEMC), Medical Officer of Health (MOH), etc will be responsible for activating a Heat Emergency (Level 3).

#### 4.4.2 When

A Heat Emergency will be called at the discretion of the Head of Council (Mayor or alternate). A decision would be reached based on circumstances prevailing at the time and through consultation with the Community Control Group (CCG) as described in the respective municipal Emergency Response Plan.

#### 4.4.3 What happens

 Activation/deactivation of the emergency notification system, pursuant to the respective municipal Emergency Response Plan. Steps include: formal declaration/termination of an emergency, media release, notification to organizations and activation/deactivation of the Emergency Operations Centre (EOC). The full Emergency Response Plans should be available on the respective municipal websites

## 5.0 Preparing for Heat

## **5.1 Community Partner Preparedness**

Early each spring, the list of community partners (Appendix A) should be contacted to review the following;

- 1) Verify primary and secondary contacts
- 2) Determine if each partner is still able to provide support to the program
- 3) Determine if they need additional resources (ie posters, flyers, etc)
- 4) Determine their capacity and availability of support staff in the event of a prolonged heat wave.

#### 5.2 Places to Cool Down

A list of places to cool down is provided in Appendix C. This list should be reviewed in the spring to verify hours of normal operation.

## 5.3 Stay Cool Amherstburg

The website should be updated routinely prior to and during the heat season. Communications tools developed as support to the community partners should be provided on the website in formats that allow easy downloading and printing.

The places to stay cool should also be updated to ensure that the information remains accurate.

The number of visits to the website should be monitored and used to evaluate the success of the awareness campaign.

#### 5.4 211 Call Centre

211 should be provided with all updated information as it pertains to the heat alert and response plan and awareness campaign.

211 will also be asked to track the number of calls received for heat related questions. This information will assist in the evaluation of the awareness campaign.

#### 5.5 Education

The Education Campaign will be lead by the Amherstburg County Health Unit and the Town of Amherstburg's Environmental Coordinator. Community partnerships will be crucial for the success of this campaign. Such partnerships will be necessary to ensure that the messages are getting out across the community.

The beginning of the heat season represents a timely opportunity to build public awareness of heat wave notification protocol (internally and with the general public), associated health risks, and protective measures. The heat season is defined roughly as the period from mid-April to early-October. In addition to the Stay Cool Amherstburg website and 211, a marketing campaign will be executed. The marketing campaign may vary year-to-year depending on the funding and the success of certain tactics implemented. Posters, banners, brochures, advertisements, fridge magnets are all examples of tactics that may be implemented.

Train the trainer sessions will be conducted in the Spring of 2011. These sessions will provide an overview of the history and future of excessive heat in Town of Amherstburg, heat-related illness, and how the community partners can support the heat alert and response plan. A list of participants in the train the trainer sessions will be maintained and those able to provide support to the program will be listed as a community partner in Appendix A.

## **6.0 Supporting Documents**

This heat alert and response plan was developed with support of Health Canada's Climate Change and Health Office through a two-year pilot project. The pilot project has allowed Health Canada to develop numerous information resources that are intended to support Canadian communities in developing

their own heat alert and response plans. These resources were developed through lessons learned in the four pilot communities and will also be useful in the evaluation and adaptation of this heat alert and response plan.

The following is a list of documents developed through the pilot project with the assistance of Health Canada:

#### Amherstburg specific documents

- Extreme Heat Event, Exercise HARS Reality, February 24, 2010
- Assessment of Vulnerability to the Health Impacts of Extreme Heat in Amherstburg
- Communications Audit, Strategy and Big Picture Landscape

#### Health Canada documents, Heat Resilient Canadians and Communities

- Guidelines for Assessing Health Vulnerability and Adaptation to Extreme Heat Events
- Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials
- Audience Specific Public Heat-Health Fact Sheets
- Best Practices for Developing Heat Alert and Response Systems to Protect Canadians
- Guidelines for Health Care Workers Regarding Extreme Heat Events
- Facts Sheets for Health Care Workers
- Simulating Extreme Heat Events to Develop Heat Alert and Response Systems
- Extreme Heat Events User Guide for health care organizations

## APPENDIX A

## **Community Partners**

## Confirm support of Community Partners each spring

Community Partner	Contact Info Support pledged		
To be completed April/May 2011			

#### APPENDIX B

Heat-Health Illnesses – Draft from Health Canada's Communication Tool kit.

## Extreme heat events can lead to one or more of the following health effects presented in descending order of severity<sup>1</sup>

**Heat stroke** – Most serious type of heat illness that is a result of body heat overload. Signs of heat stroke may include a core body temperature greater than 40°C/104°F, complete or partial loss of consciousness and/or reduced mental ability. Sweating is not a good indicator of heat stroke as there are two types of heat stroke:

- 1. **Classic** Accompanied by little or no sweating, usually occurring in children, persons who are chronically ill, and older adults
- Exertional Accompanied by increase in body temperature because of strenuous
  exercise or occupational exposure in combination with environmental heat and where
  sweating is usually present

**Heat exhaustion** – Caused by excessive loss of water and salt. Symptoms may include heavy sweating, weakness, dizziness, nausea, headache, diarrhea, and muscle cramps.

**Heat fainting** – Caused by the loss of body fluids through sweating, and by lowered blood pressure due to pooling of blood in the legs. Symptoms include temporary dizziness resulting from insufficient flow of blood to the brain while a person is standing.

**Heat edema** – Heat-induced swelling frequently noticeable in the ankles, feet and hands and is most often seen in people who are not regularly exposed to heat.

**Heat rash** – Is a result of inflammation of clogged sweat glands and is accompanied by tiny red spots on the skin, which may give a prickling sensation.

**Heat cramps** – Caused by a salt imbalance resulting from a failure to replace salt lost through excessive sweating. Symptoms are sharp muscle pains.

## APPENDIX C

## List of Places to Stay Cool

## Reviewed each spring for updated hours of operation

Location	Address	Hours of Operation	Contact Name /	A/C	Generator	Any Conditions	
			Phone Number	Yes/no	Yes/no		
Community Centres							
Libraries							
Pools							
Spray Pads							
Non- Municipally owned facilities							
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