



Sudbury & District

Health Unit

Service de
santé publique



City of Greater Sudbury

Hot Weather Response Plan

For Public Release

Version 1.3

**Always Prepared.
Toujours prêts.**



Emergency Preparedness Préparation aux situations d'urgence

www.greatersudbury.ca www.grandsudbury.ca

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Introduction

Interest in the impact of heat on human health has increased dramatically in recent years, due to notable tragic events such as the heat waves in the United States in 1995, 1999 and 2006, and in Europe in 2003 and 2006.

There is strong consensus in the scientific community that climate change is occurring and that average global temperatures will rise substantially during this century. Global warming is anticipated to increase the number of air pollution and heat-related deaths worldwide. Cities around the world are moving to develop heat-health warning systems and public health response plans.

Extreme heat impacts different people in different ways, depending on their age, underlying medical conditions and how well they are acclimatized to hot conditions. Exposure to extreme heat over prolonged periods of time without access to cooling intervals (such as typically occur at night) makes it hard for the human body to maintain a consistent internal temperature. This stress can result in a rise of internal temperature, and/or increased stress on respiratory and circulatory systems. Either circumstance can result in related health problems or death. Even a short break from the extreme heat helps to reduce this stress.

Research studies show that socially isolated seniors are at highest risk of heat-related morbidity and mortality. Other at-risk groups include people with chronic and pre-existing illnesses including mental illness, children and people who have low incomes or are homeless.

The City of Greater Sudbury (CGS) and the Sudbury & District Health Unit (SDHU) have collaborated to develop a Hot Weather Response Plan (HWRP) for Greater Sudbury.

The HWRP is intended 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.

The best defense against heat-related illness is prevention: staying cool, drinking fluids, moderating physical activities and wearing loose, light-coloured clothing.

The SDHU annually reviews and revises a number of educational materials that outline general precautions to take during hot weather. These bilingual materials are widely distributed to the public, and to community organizations including clinics, daycares, long-term care facilities, seniors' residences, health care professionals, religious institutions, sports and recreational facilities, food banks, playground associations, school boards and Aboriginal groups. Moreover, this information is also available electronically on the CGS and SDHU websites.

Essential Components

The essential components of such initiatives include public education and preparedness, public warnings and response action plans.

Public Education:

- Beat the Heat Campaign (May/June)
- Website – CGS and SDHU
- Brochures and publications
- Public media messaging

Monitoring:

- Monitoring of weather forecasts
- Identifying weather situations that adversely affect human health

Response:

- Implementing mechanisms for issuing warnings when a weather situation is forecasted which could adversely affect health
- Promoting public health activities to prevent heat-related illness and death
- Increased community outreach
- Increased surveillance
- Dissemination of educational material
- Distribution of bottled water to high-risk populations
- Identify potentially dangerous situations
- Opening of cooling centres when appropriate
- Provision of transportation to cooling centres

Objectives

The objectives of the HWRP are:

- To ensure that all agencies working with vulnerable groups are provided with information on what precautions to take when temperatures reach extreme levels
- To coordinate a community response when temperatures reach extreme levels
- To ensure that high-risk populations are cared for when temperatures reach extreme levels
- To provide cooling centres when appropriate
- To activate the City's Emergency Response Plan when appropriate

Roles and Responsibilities

The Sudbury & District Health Unit will:

- Provide public education
- Determine activation of HWRP
- Notification of CGS for dissemination of the activation through the CGS communication network
- Determine deactivation of the HWRP at level 2 and level 3, in conjunction with the CGS

Every day between May 15 and October 15, the SDHU monitors weather data from Environment Canada, including temperature, humidex and smog forecasts for the City of Greater Sudbury.

Forecasted humidex values are compared to the following thresholds to determine the appropriate heat advisory level under which the city should be placed.

Level	Advisory Status	Threshold
1	Heat Advisory	Forecasted humidex of 36 for at least 2 consecutive days (48 hrs)
2	Heat Alert	Forecasted humidex of 40 for at least 2 consecutive days (48 hrs) OR Forecasted humidex of 36 for at least 2 consecutive days (48 hrs) with Smog Alert
3	Extreme Heat Alert	Forecasted humidex of 45 for at least 2 consecutive days (48 hrs) OR Forecasted humidex of 40 for at least 2 consecutive days (48 hrs) with Smog Alert

Procedure

Following confirmation by the Medical Officer of Health (MOH), the advisory status is declared, and the activation procedures set forth in this response plan are followed.

The City of Greater Sudbury will:

- notify its community partners and health care agencies by email through its communication network that the plan has been activated,
- open cooling centres when appropriate,
- extend hours of supervision at public beaches.

Activation of the Hot Weather Response Plan

The following actions are taken following declaration of a heat advisory:

Level 1 – Heat Advisory

- The SDHU notifies CGS Emergency Management (EM) of the declaration.
- CGS EM notifies all community heat response partners through their communication network.
- Health Unit issues a news release that includes the following information:
 - heat advisory issued,
 - the criteria upon which the advisory is based,
 - general information on heat-related health effects,
 - recommended protective measures for the public,
 - recommended preventive measures for the public where applicable (e.g. smog reduction strategies),
 - means by which to obtain additional information,
 - emphasis on the need for citizens to check in on friends, family and neighbours who may be vulnerable to the heat, and may need assistance in implementing recommended protective actions,
 - SDHU responds to health-related media requests and posts news release on the SDHU website,
 - CGS posts news release on the city's website.

Level 2 – Heat Alert

- All actions listed in Level 1 continue.
- News releases are jointly prepared and released by CGS and SDHU.
- CGS may implement any or all of the following additional actions if appropriate:
 - distribution of bottled water to vulnerable populations in conjunction with community partners, such as Canadian Red Cross,
 - expanding location and hours of operation of public swims at city pools,
 - requesting that local utilities halt all service cancellations until after heat advisory has passed,
 - extending hours of operation and supervision at municipal beaches,
 - opening cooling centers at the following city facilities
 - Public Libraries & Citizen Service Centres
 - Garson Community Centre - Garson
 - McClelland Community Centre – Copper Cliff
 - T.M. Davies Community Centre - Lively
 - Kinsmen Community Centre - Lively
 - Dr Edgar Leclair Community Centre – Azilda
 - Dowling Leisure Centre – Dowling
 - Centennial Community Centre – Hanmer.

Level 3 – Extreme Heat Alert

- All actions listed in Level 1 and Level 2 continue
- News releases are jointly prepared and released by CGS and SDHU
- CGS may implement any or all of the following additional actions if appropriate:
 - activation of CGS Municipal Emergency Response Plan
 - notification of the Community Control Group
 - consideration of extending hours at cooling centres to 24 hours a day
 - evacuation of high risk individuals to cooling centres
 - free shuttles service by Greater Sudbury Transit to cooling centres
- increase public outreach using additional resources such as
 - police
 - postal workers on rounds
 - utility staff
- broader distribution of water
- distribution of fans

Deactivation of the Hot Weather Response Plan

There is no deactivation of a Level 1 Heat Advisory.

The SDHU, in consultation with CGS, is responsible for declaring the end of the Heat Alert at Level 2 and Level 3. Deactivation occurs only following confirmation by the MOH.

The SDHU notifies CGS EM of the declaration.

The end of a declaration will be communicated to community partners through the CGS EM communication network.

A Level 2 - Heat Alert or Level 3 - Extreme Heat Alert should only be deactivated on a day on which Environment Canada's 2-day forecast (i.e. today and tomorrow) includes neither a humidex value that exceeds the threshold nor a Smog Alert.

Conservative deactivation thresholds are recommended, as prematurely halting municipal and public health responses to extreme heat has been shown to be associated with additional deaths.

Following confirmation, a news release will be issued jointly by the CGS and the SDHU.

The news release will:

- announce the end of the heat alert and/or extreme heat alert
- specify the criteria upon which the deactivation is based
- specify the need for continued vigilance against heat-related health effects within vulnerable populations as there can be a lag period between exposure to heat and ill health effects
- provide directions on where the public may obtain additional information
- announce the closure of cooling centres

Evaluation of the Hot Weather Response Plan

The City of Greater Sudbury and the Sudbury & District Health Unit will review the effectiveness of the Hot Weather Response Plan and make any necessary revision annually.

Information will be collected regarding the implementation of the Hot Weather Response Plan including the number of advisories issued; the number of days under advisory conditions, actions taken and estimated associated costs.