

Function:	Extreme Temperature Response Protocol	
Date/Time Created:	November 30, 2022	<b>Last Revision:</b> November 21, 2023
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## Introduction

Extreme temperatures impact people in different ways, depending on age, underlying medical conditions and how well they are acclimatized to experienced conditions. Exposure to extreme temperatures for long periods without reprieve can make it difficult for the human body to maintain a consistent body temperature. This plan identifies the role of the City of Lethbridge, and external stakeholders during extreme temperature events.

## Purpose

1. Ensure the community is provided with the issued warning, and what precautions to take when temperatures reach extreme levels.
2. Coordinate community response when temperatures reach extreme levels.
3. Ensure the high-risk populations are cared for when temperatures reach extreme levels.
4. Provide cooling or heating centers when appropriate.
5. Activate the City’s Municipal Emergency Management Plan (MEMP) when appropriate.

## Scope

This plan was developed to guide emergency planning and response to a heat wave, or cold/freeze event in the City of Lethbridge. It is flexible, scalable and may be used during a response to an extreme heat or extreme cold event of any severity. This

## Extreme Heat

The Heat Alert protocol, developed by Environment and Climate Change Canada (ECCC) and adapted by the Province of Alberta, involves three stages. Prior to an alert, ECCC will send out special weather statements which forecast increased temperatures approaching an alert stage. This allows for pre-planning and public education messaging to be developed and distributed by Alberta Health and amplified by other agencies throughout the community.

Heat Alerts are activated when conditions are severe enough to present a substantial threat to the life or health of the community such as:

- When Environment Canada issues a Heat Notice: Get Prepared
- When Environment Canada issues a Heat Warning: Take Action


- When Environment Canada issues an Expanded Heat Warning: Be Informed

Heat Alert Levels	What does it mean?
<b>Level 1:</b> Early Heat Notice: Get Prepared	Advance notice that a heat event is forecasted in your region
<b>Level 2:</b> Heat Warning: Take Action	A Heat Warning is active in your region
<b>Level 3:</b> Expanded Heat Warning: Be Informed	A Heat Warning plus other heat hazard factors* are active in your region
<b>City Defined Heat Warning</b>	At the discretion of the City Manager identifying a local emergency exists, based on weather forecasts and community need

\* Including but not limited to duration, poor air quality event, or other factors such as electricity Grid Alert.

### What is a heat event?

Heat warnings are issued in Alberta when:

	<p><b>South:</b> When 2 or more consecutive days of daytime maximum temperatures are expected to reach 32 C or warmer and nighttime minimum temperatures are expected to remain at 16 C or warmer</p>
	<p><b>Rest of Alberta:</b> When 2 or more consecutive days of daytime maximum temperatures are expected to reach 29 C or warmer and nighttime minimum temperatures are expected to remain at 14 C or warmer.</p>

### City Defined Heat Alert

In the event the City has identified a heat emergency exists, or potentially exists, outside of the thresholds defined by ECCC, the City Manager may utilize Section 551(1) of the Municipal Government Act (MGA) to activate the Extreme Temperature Response Plan.

- Section 551(1): in an emergency a municipality may take whatever actions or measures are necessary to eliminate the emergency.
- Section 541(b): "emergency" includes a situation in which there is imminent danger to public safety or of serious harm to property.

## **Agency Response Actions**

### Environment and Climate Change Canada

Provide current and forecasted temperatures, issue weather warnings, heat warnings and extreme heat emergencies. Potential issuing of broadcast intrusive alert by Alberta's Alert Ready program. Participation in AEMA led coordination calls to provide situation updates to regional stakeholders.

### Alberta Health

The Provincial health authority will coordinate proactive services for more vulnerable people who may be at risk during the heat event, including ensuring heat warnings are sent out with tips for staying cool and advice to help vulnerable community members.

Patient monitoring in any Health Authority operated care facility.

### Alberta Emergency Management Agency

AEMA works with local governments and First Nations to support communities. Once the threat of an emergency develops, AEMA will provide details to local governments, First Nations, and lead agencies through the Daily Provincial Operations Center Situation Report. Should resources be needed, AEMA will assist with the logistics for acquisition.

### City of Lethbridge

The following actions can be taken by the City of Lethbridge in support of a heat event:

#### Preseason

- Update Lethbridge's Extreme Heat Response Protocol
- Update Lethbridge's Extreme Heat information on the City website
- Participate in regional exercises and forums to discuss and improve heat response.
- Prepare heat messages and identify communication channels.
- Publicly promote downloading the Alberta Emergency Alert app, the Province's public emergency notification system
- Conduct contingency planning for a/c and power supply in city owned facilities.
- Assess and validate a list of facilities which can be used by the public to escape the heat.
- Ensure adequate supplies are procured, such as extra water for public distribution and staff needs.
- Recognize those most vulnerable to health impacts of extreme heat. Studies show certain groups of people are more vulnerable to hot weather mortality and morbidity. Of the following groups, there is an overwhelming base of evidence suggesting that older adults are at greater risk for mortality during hot weather. More so for persons over the age of 70. ECCC identifies additional individual factors resulting in an increased vulnerability:
  - No air conditioning.

- Poor health status
- Social isolation
- Low income
- Dangerous behaviors during extreme heat events (strenuous physical activity, inadequate hydration, inappropriate clothing).
- Type and location of place of work and/or residence (people in occupations with exposure to high temperatures or those living on higher residential floors without air conditioning)

### **Level 1: Early Heat Notice**

- Monitor forecasted temperatures to ensure a state of readiness
- Distribute updates accordingly to appropriate city staff
- Be prepared to amplify messaging as provided by Alberta Health to provide further reach into the community if necessary

### **Level 2: Heat Warning**

- Advertise city owned facilities of which the public can use to escape the heat
- Consider staffing requirements needed to distribute water, conduct check-ins to those identified as more vulnerable to a heat event (Appendix II), operate public facilities used for heat relief and increase medical responses
- Employ a multi-agency communication strategy to disseminate relevant information to the public
- Leveraging the City webpage, social media, digital billboards, newsletters and any other opportunity to reach the public to educate on mitigative actions they can take such as:
  - It's not outdoor temperatures that matter – it's indoors
  - Use awnings, shutters, blinds, window films
  - Indoor temperatures can peak far later in the day than outdoor temperatures
  - Close windows approximately between 10 am to 8 pm (check outdoor and indoor temp)
  - Use fans to move cooler air in
  - Fans do not lower body temp for vulnerable people – do not rely on as a primary cooling method
  - Need to spend a long time in a cooling center to benefit

### **Level 3: Expanded Heat Warning**

Once ECCC with Alberta Health issues an Expanded Heat Warning, all actions at the lower tier will continue with the addition of the following:

- The City of Lethbridge Director of Emergency Management will participate in coordination activities at the local and provincial level, and call for a situation update
- Undertake community outreach focusing on high-risk populations and groups that support them

- Consider extending hours and/or opening additional areas for heat relief
- Distribute resources to the public, such as water for those experiencing heat-related conditions
- Increase the available on-duty first responders to build capacity into the emergency response system
- Increase the number of staff to operate facilities used for refuge to support the public
- Increase the number of staff to distribute water to at-risk individuals
- Continue to communicate to the public including messaging done during the Heat Warning, plus:
  - Indoor environments without air conditioning may become dangerously hot
  - Monitor indoor temperatures (26 and below is safe, 26-31 may pose risk to the most susceptible people, sustained exposure to over 31 should be avoided for most susceptible populations, if it is 31 degrees at home, go somewhere else that is cooler)
  - Indoor temperatures peak around 8 pm and maybe dangerous overnight
  - Check on others multiple times a day, especially in the evening
  - Escape the heat by going to cool places such as the mall, rec center or library

**Alert Rescinded**

Once the heat event no longer poses a threat to public safety, ECCC and Alberta Health will issue a cancellation alert.

This is the trigger by which the City can scale down all activated heat event-related activities. Following this, an after-action report will be conducted to analyze the effectiveness of the response and to outline improvements to the City of Lethbridge Extreme Temperature Response Protocol.

Environment and Climate Change Canada is charged with determining the need for temperature-related warnings. Forecasted daily temperatures and humidex values are compared to the following thresholds to determine if a temperature-related warning is required in Southern Alberta.

**Extreme Cold**

In Alberta, an extreme cold warning is issued when temperatures or the wind chill index reach minus 40 C or colder. Being exposed for short periods in these conditions can be dangerous.

<b>Advisory Status</b>	<b>Threshold</b>
<b>Extreme Cold Warning</b>	Issued when the temperature or wind chill is expected to reach minus 40° C for at least two hours
<b>City Defined Cold Warning*</b>	At the discretion of the City Manager identifying a local emergency exists, based on weather forecasts and community need

Extreme Cold Weather Events will be declared by Alberta Health when conditions meet ECCC thresholds and are expected to be associated with elevated health risks for vulnerable individuals. The intent of calling a warning is to:

- Warn people who are vulnerable to cold weather and their service providers and caregivers that such conditions are expected or already exist in the City
- Urge vulnerable people to take measures to protect their health
- Trigger response activities by the City and community partners to protect vulnerable people within the city (e.g., enhance services)

When issuing an Extreme Cold Warning, Alberta Health also considers other factors that may increase the impact of cold weather on health such as precipitation, low daytime temperatures, days/nights of cold weather in a row, and sudden cold weather.

### **City Defined Cold Warning**

In the event the City has identified a cold emergency exists, or potentially exists, outside of the thresholds defined by ECCC, the City Manager may utilize Section 551(1) of the Municipal Government Act (MGA) to activate the Extreme Temperature Response Plan.

- Section 551(1): in an emergency a municipality may take whatever actions or measures are necessary to eliminate the emergency.
- Section 541(b): “emergency” includes a situation in which there is imminent danger to public safety or of serious harm to property.

### **Agency Response Actions**

#### Environment and Climate Change Canada

Provide current and forecasted temperatures, issue extreme cold warnings. Potential issuing of broadcast intrusive alert by Alberta’s Alert Ready program. Participation in AEMA led coordination calls to provide situation updates to regional stakeholders.

#### Alberta Health

The Provincial health authority will coordinate proactive services for more vulnerable people who may be at risk during the cold event, including ensuring cold warnings are sent out with tips for staying warm and advice to help vulnerable community members.

Patient monitoring in any Health Authority operated care facility.

#### Alberta Emergency Management Agency

AEMA works with local governments and First Nations to support communities. Once the threat of an emergency develops, AEMA will provide details to local governments, First Nations and lead agencies

through the Daily Provincial Operations Center Situation Report. Should resources be needed, AEMA will assist with the logistics for acquisition.

## City of Lethbridge

The following actions can be taken by the City of Lethbridge in support of a cold event.

### Preseason

- Update Lethbridge's Extreme Temperature Response Protocol
- Update Lethbridge's Extreme Temperature information on the City website
- Participate in regional exercises and forums to discuss and improve cold response.
- Prepare cold messages and identify communication channels.
- Publicly promote downloading the Alberta Emergency Alert app, the Province's public emergency notification system
- Conduct contingency planning for heat and power supply in city owned facilities
- Assess and validate a list of facilities which can be used by the public to escape the cold
- Recognize those most vulnerable to health impacts of extreme cold.

### **Extreme Cold Warning**

- Monitor forecasted temperatures to ensure a state of readiness
- Distribute updates accordingly to appropriate city staff
- Be prepared to amplify messaging as provided by Alberta Health to provide further reach into the community if necessary
- Advertise city owned facilities of which the public can use to escape the cold
- Conduct check-ins to those identified as more vulnerable to a cold event (Appendix II), operate public facilities used for cold relief and increase medical responses
- Employ a multi-agency communication strategy to disseminate relevant information to the public
- Leveraging the City webpage, social media, digital billboards, newsletters and any other opportunity to reach the public to educate on mitigative actions they can take such as:
  - Stay safe, warm and protected
  - Stay indoors when possible. If you have to travel by car, know your route ahead of time and make sure you have a well-stocked emergency kit in your vehicle.
  - Dress in warm, windproof layers. Watch for signs of frostbite, which can occur in less than 10 minutes in extreme cold
  - When working outside, do not over exert yourself. Sweating can lead to hypothermia which can be fatal.
  - Make sure your pets have warm shelter during a cold snap
- The City of Lethbridge Director of Emergency Management will participate in coordination activities at the local and provincial level, and call for a situation update

- Undertake community outreach focusing on high-risk populations and groups that support them
- Consider extending hours and/or opening additional areas for cold relief
- Increase the available on-duty first responders to build capacity into the emergency response system
- Increase the number of staff to operate facilities used for refuge to support the public
- Continue to communicate to the public including messaging done during the Cold Warning, plus:
  - Check on others multiple times a day, especially in the evening
  - Escape the cold by going to warm places such as the mall, rec center or library

### **Alert Rescinded**

Once the cold event no longer poses a threat to public safety, ECCC and Alberta Health will issue a cancellation alert.

This is the trigger by which the City can scale down all activated cold event-related activities. Following this, an after-action report will be conducted to analyze the effectiveness of the response and to outline improvements to the City of Lethbridge Extreme Temperature Response Protocol.

## **Roles and Responsibilities**

### **Director of Emergency Management (DEM)**

- Provide public education relating to hazard awareness and individual emergency preparedness
- The DEM monitors weather data from Environment and Climate Change Canada, including temperature and humidex for the City of Lethbridge.
- Emergency Management receives notification from Environment and Climate change Canada when heat or extreme cold warnings will be issued based on upcoming forecasts.
- Notify the Emergency Management Agency (ELT) and Emergency Advisory Committee (Council) of a forecasted extreme temperature event
- Support public communication
- Convene stakeholder meetings as required
- The DEM may elect to activate the City's Emergency Coordination Center (ECC)

### **City Manager**

- Receive updates from the DEM
- Activate the Extreme Temperature Response Protocol utilizing Section 551(1) MGA if satisfied a temperature-related emergency exists, outside of defined thresholds by ECCC

### **Community Social Development (CSD)**

- Upon notification through DEM, CSD will liaise with community service providers to:



- Ensure initial notifications and situational updates are received
- Assist with needs assessments for additional resources or response components and communicate needs to DEM for logistical support

### **Emergency Social Services (ESS)**

- In the event additional facilities or supports are required, the City ESS team may be activated to provide:
  - Emergency shelters and included elements (i.e., emergency food, clothing, shelter, family reunification)
  - Activation and coordination of disaster service providers (i.e., Canadian Red Cross & the Salvation Army)
  - Operational oversight for emergent challenges through the ECC
- Note: If activating an emergency shelter, the City must notify Alberta Health Services (AHS) to confirm activation and compliance with Public Health standards

### **Emergency Shelters and Community Organizations**

- Share information on prevention of temperature-related illness to clients
- Inform staff and volunteers regarding summer and winter operating plans
- Activate relevant response plans
- Collaborate with other shelters and community organizations to support vulnerable populations
- Collaborate with first responders on any necessary interventions and responses

# Appendix A: Emergency Facilities

## Comfort Center Locations:

### City of Lethbridge-Operated Facilities

- Lethbridge Transit Park N' Ride
- Lethbridge Public Library: Main and Crossing Branch
- Helen Schuler Nature Center

### Community-based Facilities (Publicly available contacts)

- Interfaith Food Bank: 403-320-8022
- Lethbridge Food Bank: 403-320-1879

## **Reception Center Venues – Redacted – See ESS Plan**