Lexington-Fayette Urban County
Extreme Heat
Incident-Specific Plan

Lexington-Fayette Urban County
Division of Emergency Management

Table of Contents

1 Introduction 3
1.1 Purpose 3
1.2 Scope 3
1.3 Document Authority 3
1.3.1 Document Maintenance and Review 4
2 Objectives 4
3 Roles & Responsibilities 4
3.1 Primary Coordinating Agency 4
3.2 Local Agencies and Organizations 4
3.3 State, Regional, and Federal Agencies and Organizations 5
4 Activation Threshold 5
4.1 Heat Index Readings and Heat-related Medical Conditions 5
5 The Heat Index 7
6 Phases 9
7 Vulnerable Populations 10

Appendix A Lexington Office of Homelessness Prevention & Intervention Emergency Weather Plan 12

Introduction

Interest in the impact of heat on human health has increased dramatically in recent years. There is a 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 heath 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 health problems or death. Even a short break from the extreme heat helps reduce this stress.

1.1 Purpose

This document is the Lexington-Fayette Urban County Government (LFUCG) Incident-Specific Plan (ISP) for an Extreme Heat Event. Henceforth, this plan will refer to Extreme Heat Event as an "EHE" and will refer to the geographic and political entity of Lexington-Fayette Urban County as "Lexington Fayette".

EHE are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. EHE do not strike victims immediately, but their cumulative effects slowly take the lives of vulnerable populations. This ISP describes the integrated and coordinated emergency management efforts that various local, state, and federal government and non-government entities will undertake to protect public safety.

1.2 Scope

This EHE ISP includes the threshold for response activation, description of heat indices and associated health risks, response activities by heat emergency phase, and cooling centers by location.

1.3 Document Authority

The Lexington-Fayette Urban County Government Division of Emergency Management (LFUCG DEM) developed and maintains this EHE ISP and accompanying attachments and references that govern response actions related to emergencies.

Supporting agencies shall develop and maintain their own similar documents for internal use, which must be compatible with, and in support of, the overall LFUCG Emergency Operations Plan (EOP) and this ISP. All such documents must comply with the national Response Framework (NRF) and National Incident Management System (NIMS).

1.3.1 Document Maintenance and Review

The LFUCG DEM is the owner of this document.

The document owner will review this plan annually and, as needed, update it to accommodate changing demographics and other factors.

2 Objectives

In an EHE event, Lexington Fayette's objectives will be:

- 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

3 Roles & Responsibilities

The following entities will be involved in Lexington Fayette's response to an EHE event.

3.1 Primary Coordinating Agency

LFUCG DEM is the primary Lexington Fayette coordinating agency for a response to an EHE event.

3.2 Local Agencies and Organizations

The lead agencies and organizations for each emergency support function (ESF) and support annex have policy-making and primary response duties during an EHE activation. Some of these entities may be primary agencies in other ESFs; others may support or assist other ESFs during crises. Each of these entities has personnel who train and exercise and have specific knowledge or skill sets to assist DEM during the response, recovery, or mitigations phases of an EHE event.

In addition, each lead agency or organization may call on additional agencies and organizations to provide support functions for that ESF or support annex.

Each of these entities has personnel who train and exercise and have specific knowledge or skill sets to assist DEM during the preparedness, response, or recovery phase of an EHE event.

A. American Red Cross (ARC), Bluegrass Chapter

B. Lexington Division of Enhanced 911 (E911)

C. Lexington Division of Fire and Emergency Services (Lexington Fire Department – LFD)

D. Lexington Division of Police (Lexington Police Department – LPD)

E. Lexington-Fayette County Health Department (LFCHD)

F. LexCall/311

G. Lexington-Fayette Office of Homelessness Prevention and Intervention

H. Lexington Division of Parks and Recreation

I. The Lexington Senior Center

J. LexTran

K. Local healthcare entities

3.3 State, Regional, and Federal Agencies and Organizations

The following government agencies and organizations have primary or supporting duties during Lexington Fayette's response to a EHE event.

This list may be shortened or expanded based on the specific needs of the emergency.

A. Kentucky Department of Military Affairs (DMA)

B. Kentucky Community Crisis Response Board (KCCRB)

C. Kentucky Cabinet for Health and Family Services

4 Activation Threshold

Preparedness plans must be in place before an EHE occurs, and increased readiness efforts must begin when high temperatures are forecast rather than when they arrive.

The threshold for activation of a response, by phase, are as follows:

Phase 1 – Readiness: The threshold for implantation of Phase 1 will be when the HEAT INDEX is expected to reach 95 Degrees Fahrenheit as described in the Office of Homelessness Prevention and Intervention annual emergency weather plan and/or the National Weather Service issues a Heat Advisory.

Phase 2 – Heat Watch: The threshold for implantation of Phase 2 will be when the National Weather Service's issues an Excessive Heat Watch.

Phase 3- Heat Emergency – The threshold for implementation of Phase 3 will be when the National Weather Service Issues an Excessive Heat Warning for Fayette County, that is expected to last 3 or more days.

The Lexington-Fayette Urban County Government Emergency Management will monitor the NWS advisories and will notify all partners within 24 hours when a Heat Wave is predicted.

4.1 Heat Index Readings and Heat-related Medical Conditions

The heat index is a measure that combines temperature and humidity to approximate how hot it "feels" outside (see chart below). As relative humidity increases, the air seems warmer than it actually is because the body is less able to cool itself via evaporation of perspiration.

As the heat index rises, so do health risks. It is important to recognize the early sings of heat-related illnesses and know what to do about them. During normal weather, the body's internal thermostat produces perspiration that

evaporates and cools the body. However, during periods of extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature. If the body cannot cool itself, serious illness can result. Those who are susceptible (e.g. infants, children, the elderly, those with mental illness or chronic illness) are less able to sweat or regulate their internal temperature than others, and have increased risk of experiencing a range of potential adverse health outcomes.

Table 1 below list more serious medical conditions directly attributable to excessive heat exposure, along with recommended responses.

Table 1. Medical Conditions directly attributable to excessive heat exposure

Medical Condition	Symptoms	Responses
Heat cramps	Painful muscle cramps and spasms, usually in muscles of legs and abdomen. Heavy sweating.	Apply firm pressure on cramping muscles or gently massage to relieve spasm. Give sips of water; if nausea occurs, discontinue water intake. Consult with a clinician or physician if individual has fluid restrictions (e.g., dialysis patients).
Heat Exhaustion	Heavy sweating, weakness, cool skin, pale, and clammy. Weak pulse. Normal temperature possible. Possible muscle cramps, dizziness, fainting, nausea, and vomiting.	Move individual out of sun, lay him or her down, and loosen clothing. Apply cool, wet cloths. Fan or move individual to air-conditioned room. Give sips of water; if nausea occurs, discontinue water intake. If vomiting continues, seek immediate medical attention. Consult with a clinician or physician if individual has fluid restrictions (e.g., dialysis patients).
Heat stroke (sunstroke)	Altered mental state. Possible throbbing headache, confusion, nausea, and dizziness. High body temperature (106°F or higher). Rapid and strong pulse. Possible unconsciousness. Skin may be hot and dry, or patient may be sweating. Sweating likely especially if patient was previously involved in vigorous activity.	Heat stroke is a severe medical emergency. Summon emergency medical assistance or get the individual to a hospital immediately. Delay can be fatal. Move individual to a cooler, preferably air-conditioned, environment. Reduce body temperature with a water mister and fan or sponging. Use air conditioners. Use fans if heat index temperatures are below the high 90s. Use extreme caution. Remove clothing. If temperature rises again, repeat process. Do not give fluids.

Sources: CDC, 2004a; Kunihiro and Foster, 2004; NWS, 2004.

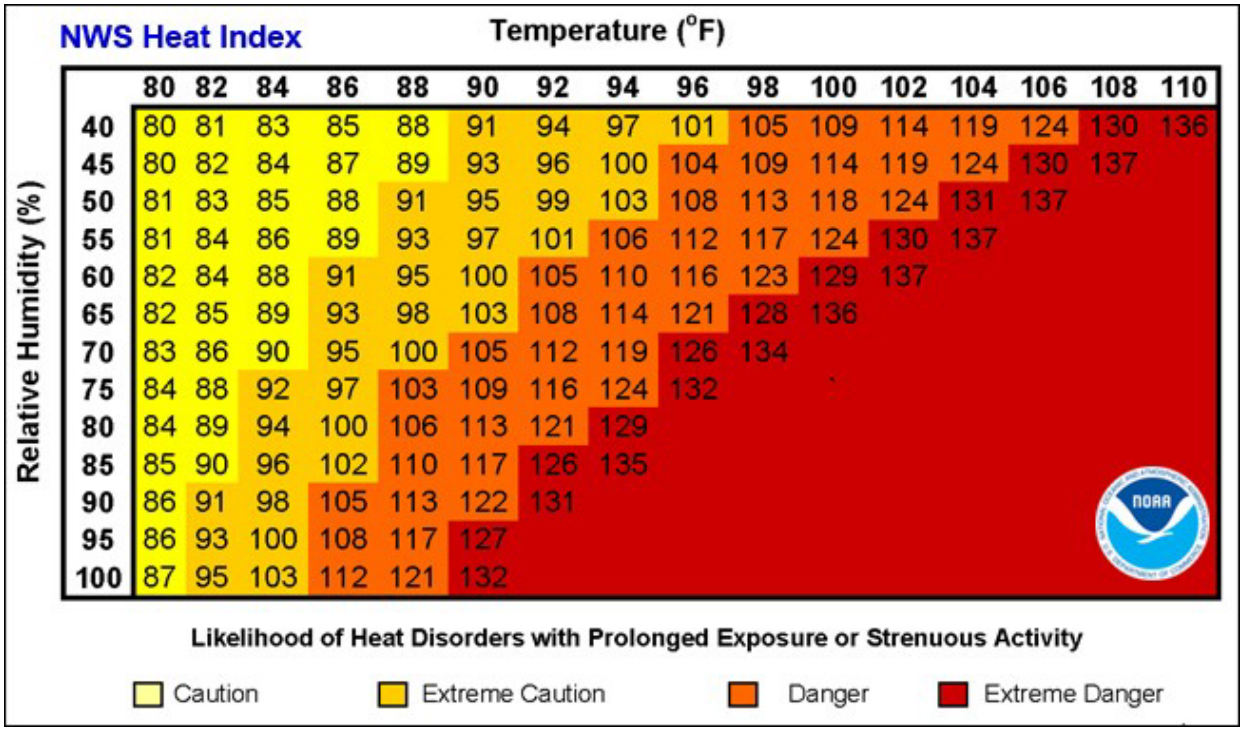
Table 2 below list other heat-related, but less severe, conditions attributable to heat or sun exposure, along with recommended responses.

Table 2. Less severe heat-related conditions attributable to heat or sun exposure

Medical Condition	Symptoms	Responses
Heat rash (prickly heat)	A skin irritation caused by excessive sweating during hot humid weather. Most common in young children, although can occur at any age. The rash looks like a red cluster of pimples or small blisters and is most common in the neck and upper chest, in the groin, under the breasts, and in elbow creases.	Move individual to a cooler place and keep the affected area dry. Use a dusting of talcum powder to increase comfort. Usually does not require medical assistance.
Sunburn	Damage to the skin caused by too much sun exposure. The skin becomes red, painful, and warm. Blisters may develop.	Medical attention should be sought if the sunburn affects an infant or if there is fever, fluid-filled blisters, or severe pain. Otherwise, the person should avoid sun exposure, apply cold compresses or immerse the burned skin in cool water, apply moisturizing lotion to the burn, and avoid breaking the blisters.

5 The Heat Index

The National Oceanic Atmospheric Administration (NOAA) is a Federal Agency focused on the condition of the oceans and the atmosphere. The following NOAA charts show the health risk as temperature and relative humidity increase:



Celsius	Fahrenheit	Notes
27–32 °C	80–90 °F	Caution — fatigue is possible with prolonged exposure and activity. Continuing activity could result in heat cramps
32–41 °C	90–105 °F	Extreme caution — heat cramps, and heat exhaustion are possible. Continuing activity could result in heat stroke
41–54 °C	105–130 °F	Danger — heat cramps, and heat exhaustion are likely; heat stroke is probable with continued activity
> 54 °C	>130 °F	Extreme danger — heat stroke is imminent
Note: exposure to full sunshine can increase Heat Index values by up to 8°C (14°F).		

Heat Advisories or Excessive Heat Warnings (see definitions in Table 5 below) are issued by the NWS in Louisville, KY. The Louisville, KY NWS covers 49 counties across central Kentucky and 10 counties in south central Indiana.

Heat Wave	A Special Weather Statement may be issued to highlight a heat wave that doesn't meet requirements for advisories/warnings. A heat wave is defined as 2 or more days of ≥90°F temperatures.
Excessive Heat Outlooks	Issued when the potential exists for an excessive heat event in the next 3-7 days. An Outlook provides information to those who need considerable lead time to prepare for the event.
Excessive Heat Watch	Issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours. A Watch is used when the risk of a heat wave has increased but its occurrence and timing is still uncertain. Heat indices in excess of 105Â°F (41Â°C) during the day combined with nighttime low temperatures of 80Â°F (27Â°C) or higher are forecast to occur for two consecutive days.
Heat Advisory/ Warning	Issued when an excessive heat event is expected in the next 36 hours. These products are issued when an excessive heat event is occurring, is imminent, or has a very high probability of occurring. The warning is used for conditions posing a threat to life. An advisory is for less serious conditions that cause significant discomfort or inconvenience and, if caution is not taken, could lead to a threat to life. Issued within 12 hours of the onset of the following conditions: heat index of at least 105°F but less than 115°F for less than 3 hours per day, or nighttime lows above 80°F for 2 consecutive days.

6 Phases

The most appropriate level of response to an EHE in Lexington- Fayette will be carried out by the city government using the thresholds and phases outlined below. If additional assistance is needed, the County Emergency Operations Center will be opened.

- Phase 1 – Readiness
- Phase 2 – Heat Watch
- Phase 3 – Heat Emergency
- Phase 4 – Recovery

Phase 1 – Readiness

The DEM Primary On – Call person will monitor weather forecasts. If the NWS predicts that the HEAT INDEX will be above 95 degrees the following actions will be taken:

- The DEM designee will notify the DEM Director and the Office of Homelessness Prevention and Intervention.
- LEXTRAN will offer free transportation to individuals experiencing homelessness to the identified cooling stations.
- At the discretion of Senior LFUCG Staff additional cooling stations can be opened.
- Office of Homelessness Prevention and Intervention will open cooling stations for individuals facing homelessness.
- The DEM designee will ensure readiness plans for the vulnerable populations are in place.
- The DEM designee will post in the Significant Events Board in WebEOC for situational awareness and documentation.
- The DEM designee will activate the emergency cooling services as described in Annex A.
    - The DEM PIO will provide information on Heat Preparedness to local media.
    - Will coordinate the Notification local media, provide updates on social media, and notify all organizations that work with people experiencing homelessness through the Office of Homelessness Prevention and Intervention.

Phase 2 – Heat Watch

If the NWS Issues a Heat Watch the following actions will be taken:

- The DEM designee will notify the DEM director and steps conducted in Phase 1 will be repeated
- Alert notifications will be sent out via LexAlerts and an email to the executive internal list.
- 311/LexCall will function as the call center for citizens seeking information.

- Parks and Recreation will offer discounted pool admission
- LEXTRAN will provide free rides for citizens to officially identified cooling centers and pools.

Phase 3

If the NWS Issues a Heat Warning that last more than three days the following actions will be taken:

- The DEM designee will notify the DEM director and steps conducted in Phase 1 and 2 will be repeated
- Additional Community centers will open (subject to availability)

Phase 4 – Recovery

There is no deactivation of a Level 1 Readiness activation. The DEM Director is the responsible for declaring the end of an EHE. A level 2 or Level 3 should only be deactivated on a day which the Louisville NWS 2-day forecast includes neither a Humidex value that exceeds the threshold. The end of an EHE will be communicated to community partners through alert notification systems. All cooling centers will be systematically closed.

Conservative deactivation thresholds are recommended, as prematurely halting municipal and public health responses to an EHE has been shown to be associated with additional deaths. Following confirmation of deactivation a news release will be issues jointly.

DEM will coordinate a conference call with partner agencies on what went well, and what improvements are needed for future heat emergencies. All After Action comments will be recorded into WebEOC.

7 Vulnerable Populations

Situational and physical characteristics help to identify vulnerable populations that may not comfortably or safely access and use disaster resources. Specifically, when discussing heat related emergency preparedness, the following groups could be considered vulnerable or at greater risk in a heat emergency:

- Older persons (65 years old and older)
- Infants and young children
- Women who are pregnant
- People with a mental illness or who are under the influence of drugs or alcohol
- Those with chronic diseases such as heart conditions, diabetes, obesity, and high blood pressure
- People with mobility restrictions
- People engaged in rigorous outdoor work or exercise
- Those living in poverty
- The homeless
- People who are socially isolated

- Non-English speaking people who may not have access to current information

Identifying these high-risk groups in given locations allows public health officials to develop and implement targeted notification and response actions that focus surveillance and relief efforts on those at greatest risk.

Lexington-Fayette County Community

Emergency Heat Plan 2024

This Emergency Heat Plan provides a coordinated response for times when extreme heat creates the immediate need for expanded services to assist people experiencing homelessness in Lexington. Extreme temperatures often force people to seek shelter who may not otherwise seek assistance. In some cases, people struggling with mental illness may not seek shelter and require additional intervention for their own safety. This plan ensures Lexington is prepared for these situations.

Any time the plan has been activated, the Office of Homelessness will provideinformation on social media and notify all organizations that work with peopleexperiencing homelessness.

Donations for Extreme Heat

Please contact each agency directly to donate items. In general, agencieswill be in need of the following:

- Sunscreen
- Deodorant
- Bottled Water
- Baseball Hats – Summer Shade Hats

Cooling Services

Name of Agency	Population Served	Times of Operation	Address	Phone
Salvation Army	Adult Women and Adult Women with Children	24/7/365 (current residents only)	736 West Main Street	859-252-7706
Hope Center	Adult Men	24/7/365 (current residents only)	360 West Loudon Avenue	859-252-7881
Catholic Action Center	Adult Men and Women	24/7/365 (current residents only)	1055 Industry Road	859-255-0301
Arbor Youth Services	Birth to 17 years of age	24/7/365 (current residents only)	536 West 3rd Street	859-254-2501
	Anyone ages 18-24	Monday – Friday, 9:00am – 4:00pm	540 West 3rd Street	859-254-2501
GreenHouse17	Domestic Violence	24/7/365 (current residents only)	n/a	800-544-2022
Lexington Rescue Mission	All Individuals and Families	Monday, 9:00am-3:00pm Tuesday-Friday, 9:00am-4:00pm Saturday, 10:00am-1:00pm	444 Glen Arvin Avenue	859-381-9600
Mountain Comp Care	Adult Men and Women	Monday-Friday, 9:00am-4:00pm	1060 Goodwin Drive	859-447-8217
New Life Day Center	Adult Men and Women	Monday-Friday, 8:00am-4:30pm Saturday, 8:00am-12:00pm	224 N Martin Luther King Blvd	859-721-2325
New Vista	Adult Men and Women	Monday-Friday 8:00am-4:00pm	201 Mechanic Street	859-721-8505
Nathaniel Mission	All Individuals and Families	Monday-Thursday 9:00am-3:30pm	1109 Versailles Road, Suite 400	859-255-0062

Transportation and Street Outreach Services

Provider	Times of Operation	Service	Phone
HopeMobile	Monday-Friday, different times, different locations	Transportation to shaded areas providing water and basic needs, and other materials.	859-252-7881
Lexington Street Outreach	Monday-Friday, 8:00am – 10:00pm and as needed	Transportation to shaded areas providing water, basic needs, and other materials.	859-551-8053 859-556-1870 outreach@hopectr.org
Compassionate Caravan	Saturday-Sunday, day time hours	Water	859-255-0301
LexTran		Individuals experiencing homelessness who are in need of a ride to a cooling center may board Lextran buses at no charge.	

Consistent Services, Detailed

Unaccompanied Women and Women with Children

Salvation Army
736 W. Main Street
Lexington, KY 40508
859-252-7706

- Services Available: emergency shelter, meals, showers, clothing as available.

Unaccompanied Men

Hope Center
360 W. Loudon Avenue
Lexington, KY 40508
859-252-7881

- Services Available: emergency shelter, clothing, meals, on-site HealthFirst clinic, non-medical detox, employment information, access to Hope Center programming (Veteran's Program, Mental Health, Men's Recovery, Employment, Social Services), and other services as needed.

Unaccompanied Men and Women

Catholic Action Center
1055 Industry Road
Lexington, KY 40505
859-255-0301

- Services Available: emergency shelter, meals, showers, phone service, connection to social services.

Children and Youth, Ages 6 weeks to 17 years

Arbor Youth Services
536 West Third Street
Lexington, KY 40507
859-254-2501

- Services Available: Emergency shelter and individualized attention to secure basic needs and appropriate shelter.

Unaccompanied Youth, Ages 18 weeks to 24 years

Arbor Youth Services
540 West Third Street
Lexington, KY 40507
859-254-2501

- Services Available: Emergency shelter and individualized attention to secure basic needs and appropriate shelter.

Day Shelters

Day Shelters are facilities open during daytime hours as a place for individuals with no other place to seek refuge from emergency weather conditions. Each facility may have its own eligibility criteria for entrance.

New Life Day Center

224 North Martin Luther King Blvd.
Lexington, KY 40508
859-721-2325

- Operating Hours: Monday – Friday 8:00 am to 4:30 pm; Saturday 8:00 am to 12:00 pm
- Services: Connections to employment, clothing, physical and mental healthcare,Social Security, and other resources; storage lockers available.

Catholic Action Center

1055 Industry Road
Lexington, KY 40505
859-255-0301

- For current residents only
- Services: Meals, Showers, Phone Service, Connection to Social Services.

Arbor Youth Service Outreach Center (Youth 18-24 years old and their children)

540 West Third Street
Lexington, KY 40508
859-254-2501

- Operating Hours: Daily 9:00 am to 4:00 pm (extended hours as needed – no one turned out to the street)
- Services: Meals, showers, and individualized attention to secure basic needs and appropriate shelter.