

Warren County Board of Supervisors

RESOLUTION NO. 328 OF 2022

RESOLUTION INTRODUCED BY SUPERVISORS GERACI, BRAYMER, SEEBER, DICKINSON, DRISCOLL, McDEVITT AND DIAMOND

ADOPTING THE WARREN COUNTY EXCESSIVE HEAT PLAN

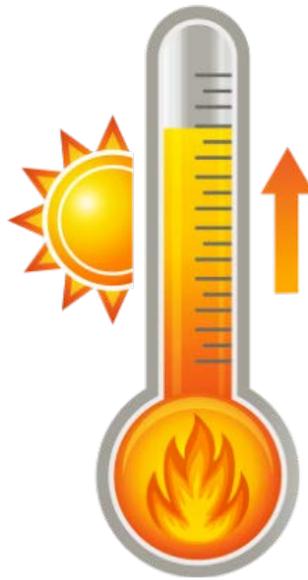
WHEREAS, the Warren County Office of Emergency Services prepared a Excessive Heat Plan to assist Warren County agencies with managing and responding to an excessive heat event, and

WHEREAS, the Director of the Office of Emergency Services has presented the Warren County Excessive Heat Plan included with this resolution as Schedule “A” and the Criminal Justice & Public Safety Committee has approved and recommended that the same be advanced to the full Board of Supervisors for consideration, now, therefore, be it

RESOLVED, that the proposed Warren County Excessive Heat Plan, annexed hereto as “Schedule A,” be, and the same hereby is, adopted as the official policy for Warren County.

Warren County

Excessive Heat Plan



THIS DISASTER MANUAL REPRESENTS GENERAL GUIDELINES, WHICH CAN BE MODIFIED BY EMERGENCY PERSONNEL AS APPROPRIATE. THIS PLAN DOES NOT CREATE ANY RIGHT OR DUTY THAT IS ENFORCEABLE IN A COURT OF LAW.

Revisions Page

Date	Update	Name
3/23/22	Created Extreme Heat Plan	A. Rivers

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Overview

Purpose

The purpose of this Annex is to guide County agencies and Operational Area jurisdictions during an Excessive Heat Event. This Annex identifies resources, actions and critical issues regarding a weather event, including monitoring, public information, and congregate care and/or shelter. This Annex should be used in conjunction with the Warren County Comprehensive Emergency Management Plan (CEMP) and follow the Emergency Operations Center (EOC) guidelines whenever needed.

This Annex is intended to provide a written plan to assist Warren County agencies with managing information and responding to an Excessive Heat Event. As with all emergency plans, these guidelines will provide relevant agencies and decision makers with flexible tools, options and considerations as the situation dictates and evolves.

This Annex recognizes that in the event of such an emergency, this plan would draw upon the collaborative efforts and relationships of various agencies in order to provide appropriate resources, manpower and response to such an event.

The end goal is to ensure a coordinated response occurs during an Excessive Heat Event, with public information being a primary focus. The Warren County Office of Emergency Services will support Operational Areas of jurisdiction through interagency support, as needed.

Scope

This Annex should be used in conjunction with the Warren County CEMP and utilizes common goals, strategies, and terminology. It applies to extreme heat related emergencies that may cause severe illness requiring a response effort over a defined period of time within Warren County. The scope of this document identifies local county departments and agency actions as well as resources that may be available in the event of a heat emergency.

Situation Overview

Excessive heat temperatures can pose a risk to those of the populace that are unable to take adequate measures to protect themselves. Excessive heat temperatures can cause an increase in illness and injury up to and including death. Vulnerable populations are primarily at risk for adverse effects from excessive heat.

The U.S. National Hazard Statistics provides information on fatalities, injuries and damages caused by weather-related hazards. These statistics are compiled using data from all 50 U.S. States as well as Puerto Rico, Guam and the Virgin Islands. The following graph below compares fatalities caused by different types of weather events:

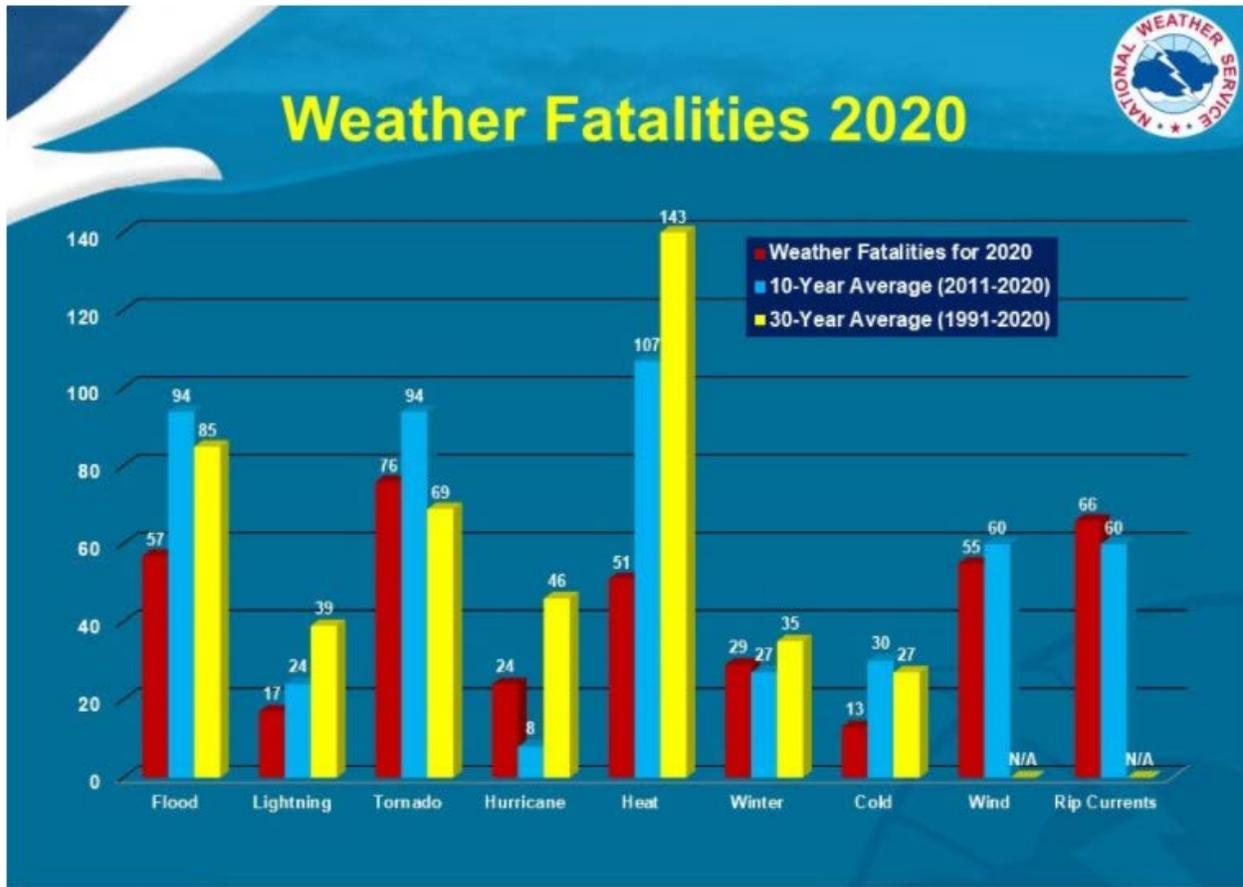


Figure 1: Weather Fatalities 2020 (National Weather Service 2020)

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. As relative humidity increases, the air seems warmer than it actually is due to the body’s decreased ability to cool itself via evaporation of perspiration.

As the Heat Index increases, so do health risks. It is important to know and recognize the early signs of heat-related illnesses and know what to do if they occur. During normal temperature levels that your body is used to, it is able to regulate its internal temperature through such methods as perspiration. When the outside temperatures exceed a certain threshold, the body is unable to evaporate the perspiration at a rate needed to stay cooled. If the body is unable to cool itself, serious illness can result.

Heat Sensitive and Vulnerable Populations

Heat commonly affects certain groups, typically identified as heat sensitive or heat vulnerable, or lower threshold than other populations. Some of these group include:

- The elderly and the very young;

- Those on certain medications and/or with preexisting conditions which make them sensitive to heat;
- Those working outdoors – especially new workers, temporary workers, or those returning to work after a week or more off;
- Those exercising or doing strenuous activities outdoors during the heat of the day;
- Those without a reliable source of cooling and/or hydration;
- Those not acclimated to the level of heat expected – especially those who are new to a much warmer climate;
- Some economic sectors are also affected by increasing levels of heat, such as energy and transportation

Any individual, regardless of age or health status, can develop heat stress if engaged in intense physical activity and/or exposed to environmental heat (and humidity). If heat exposure exceeds the body's capacity to cool a range of heat-related symptoms and conditions can develop. These symptoms can be minor in nature such as heat cramps or develop into severe life-threatening illnesses like a heat stroke. Adequate hydration is important in order to avoid the development of heat-related illnesses.

Activation Threshold

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

Phase 1 – Readiness: The threshold for implementation of Phase 1 will be when the National Weather Service (NWS) announces that a Heat Wave is predicted for the County.

Phase 2 – Heat Alert: The threshold for implementation of Phase 2 will be when the NWS issues a Heat Advisory/Warning for the County.

Phase 3 – Heat Emergency: The threshold for implementation of Phase 2 will be when the NWS issues an Excessive Heat Warning for the County, which is expected to last 3 or more days.

Concept of Operations

The primary concept of operations for an Extreme Heat Event will focus on providing public information using multiple means of notification including press releases, websites, social media and other mechanisms as necessary. Dependent on the progression, duration and impact of the Excessive Heat Event, cooling center locations may be made available to community members.

Response to an Excessive Heat Event will utilize a three-phased approach based on weather information from the National Weather Service. These phases are intended to provide adequate time for dissemination of information and implementation of appropriate actions. These trigger points should be reviewed and/or revised before the heat season, based on changes from historical data compiled by the NWS, and any recommendations made by them.

Extreme Heat Events

Phases of Activation

The National Weather Service defines Excessive Heat as a combination of high temperatures (significantly above normal) combined with high humidity. At certain levels the human body is unable to properly maintain internal temperatures and may experience a medical emergency related to heat stress or stroke. The Heat index is a measure of the effect of the combined elements on the body. When temperature increases significantly for two or more consecutive days without an adequate drop in nighttime temperature to cool the outdoor and indoor environments, there is a significant increase in the risk to community members without cooling capabilities, identified health problems or fragility due to age. Therefore, the definition of excessive heat for a particular climate zone should consider both daytime maximum temperatures and nighttime maximum low temperatures.

National Weather Service Alerts

The National Weather Service (NWS) in Albany provides weather forecasts for Warren County, NY. When needed, the NWS issues special weather statements to alert the public when unusually hot weather is expected to occur. The NWS issues Excessive Heat Watches, Excessive Heat Warnings, Heat Advisory, and Excessive Heat Outlooks to warn of an extreme heat event that may occur.

Phases

Phase 1: Seasonal Readiness

In this phase, actions are taken prior to hotter months to prepare for and maintain a state of readiness. During this phase, threshold temperatures are not expected to be reached.

Response:

- Initial notification of key stakeholders
- Review of existing plans, procedures and resources
- Verification of use/availability of key facilities
- Updating/validating notification processes
- Initiating awareness campaigns, disseminating information to the public

Phase II: Heat Alert

Trigger (one or more of the following):

NWS issues an Excessive Heat Warning or Advisory indicating the following criteria:

- Increased reports of heat related illnesses, medical emergencies or mortality reported by local healthcare providers or other credible sources

Response:

- Prepare for the activation of cooling center
- Continued monitoring of weather
- Issue press release(s)
- Provide information to the public

- Consider activating call centers and/or public information lines through various county departments. If not activated, set up for rapid activation
- Increased monitoring of persons with disabilities and other with access and functional needs
- Increased surveillance of heat related illnesses/injuries
- Coordinate and pre-identify potential transportation issues
- Monitor electrical demands
- Look ahead to phase three activities

Phase III: Extreme Heat Event

In the case of an extreme heat event, the following are suggested trigger and response protocols:

Trigger (one or more of the following):

- A heat index of over 105°F (air temperature & humidity combined);
- High day time air temperature of over 105°F or
- Night time temperatures of 80°F or more
- NWS Heat Warning/Advisory is issued for 3 or more consecutive days
- Electrical emergency or rotating outages during an excessive heat event occur
- Increased reports of heat related illnesses, medical emergencies or mortality reported by local health care providers or other credible sources
- Heat emergency declaration is deemed necessary by local government official.

Response

- Activation of cooling centers
- Continue to monitor the weather
- Issue press release(s)
- Provide information to the public
- Maintain and support the call center/or public information hotlines
- Increased monitoring of persons with disabilities and others with access and functional needs
- As necessary, activate cooling center(s)
- Coordinate any transportation requests to cooling centers
- Monitor electrical demands

Agency and Organization Roles and Responsibilities

Monitoring

The County Emergency Manager or designee is responsible for monitoring weather information from the NWS and Excessive Heat Event conditions. Specifically, the NWS Excessive Heat Watch, Warning, and Advisories will serve as one of the trigger points for decision-making.

Public Information

Information sharing and dissemination of public information is crucial during an Excessive Heat Event. The Director of Public Affairs will be the lead for press releases and related health bulletins. However, multiple departments and organizations may have a role in the risk communication process.

Risk Communication priorities may include (but are not limited to):

- Assist in informing and educating the public regarding health precautions and other health related materials.
- If warranted, provide continual updates (via press releases, news conferences, etc.) on the incident to the media.
- Provide directions and instructions regarding cooling center activation, locations and operational hours.

Alert and Warning

Every extreme heat related advisory, watch or warning should be communicated to the public as soon as possible. The Emergency Manager will be tasked with community outreach before, during and after an extreme heat event. Below are examples of several methods that could be utilized for alert and warning to ensure the widest possible dissemination of emergency communications to the public:

Emergency Mass Notification System

May be used in extreme cases as needed.

Local Media

Local media can be utilized to disperse press releases and other pertinent information to the general public.

County and/or Town, Village, City Webpages

May be used as needed and up to the area having jurisdiction preference.

People with Disabilities and Others with Access and Functional Needs

Language barriers must always be considered when warning messages are developed for the public. Warren County is a tourism area leading to groups of varied languages and ethnic origins being a factor that needs to be considered when putting out alerts.

Cooling Centers

A cooling center is a location where people can officially go to get out of the heat. It is a temporary, air-conditioned public space set up to deal with the health effects of a heat wave. A cooling center can be established at various facilities including senior and community centers, libraries, and public buildings.

Pre-established points of contact should be made with each facility. Identification of services provided at the cooling centers should be taken into consideration including: accommodations for people with disabilities and others with access or functional needs, service animals, domestic pets, and operating hours. Appendix A has additional information to assist with establishing cooling centers.

When a cooling center is activated, the responsible jurisdiction and Warren County Office of Emergency Services shall be notified. Warren County OES shall disseminate cooling center information to Public Health.

Additionally, it is common practice that a list of pre-identified cooling centers not be published to any website prior to an Excessive Heat Event. While the Appendix calls for pre-identifying cooling centers, the location of these cooling centers without confirming operation for each Excessive Heat Event can cause confusion.

Appendix A: Cooling Center Criteria

The following is criteria that will be used to establish if a facility is eligible to be considered a cooling center in Warren County. If critical criteria are met, they will be added to a cooling centers list and be contacted upon the need or request for activation.

Center Information						
Name of Center:						
Center Address:						
Hours of Operation:						
M:	T:	W:	Th:	F:	Sa:	Su:
Contact Person's Name:						
Contact Person's Title:						
Contact Person's Number:						

Critical Criteria	
<input type="checkbox"/>	Air Conditioning
<input type="checkbox"/>	Available drinking water
<input type="checkbox"/>	Public Restrooms continuously maintained and accessible to disabled
<input type="checkbox"/>	Seating for 10 or more people (Number of seats: _____)
<input type="checkbox"/>	Able to have External Communications (Phone, Computer)
<input type="checkbox"/>	Americans with Disabilities Act (ADA) Compliant
<input type="checkbox"/>	Continuous staffing (1-2 persons per facility)

Locations do not need to meet any or all of the suggested criteria in order to become a cooling center.

Suggested Criteria	
<input type="checkbox"/>	24/7 capability
<input type="checkbox"/>	Large capacity
<input type="checkbox"/>	Toys and small furniture for children
<input type="checkbox"/>	Available television, books, games
<input type="checkbox"/>	Back-up generator
<input type="checkbox"/>	Parking
<input type="checkbox"/>	Proximity in public transit
<input type="checkbox"/>	Transportation for those lacking their own
<input type="checkbox"/>	Area for pets

Appendix B: Heat Index

The heat index is also known as the apparent temperatures, or more commonly known as the “feels like” by weather sites. Loosely, it is what the temperature feels like to the human body when relative humidity and air temperature are combined.

When the body overheats it begins to perspire or sweat in order to cool itself off. The sweat is then evaporated from the body, in a process that is necessary for the body to effectively reduce its temperature. When the atmospheric moisture content (relative humidity) is high, the rate of evaporation of perspiration from the body decreases. This results in the body feeling warmer in humid conditions. When the relative humidity decreases the rate of evaporation of perspiration increases, so the body actually feels cooler in arid conditions.

Heat indexes were created for shady, light wind conditions, which means exposure to sunshine can increase heat index values by up to 15°F. Additionally, strong winds, particularly with very hot, dry air, can be extremely hazardous.

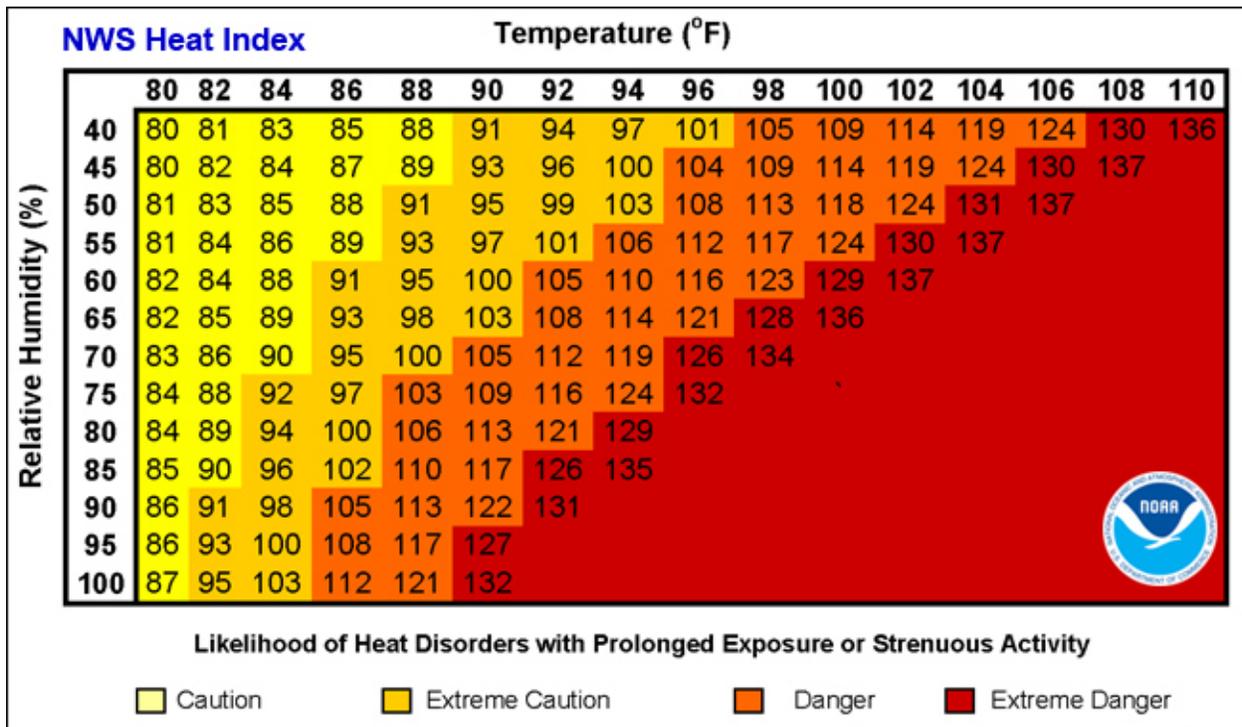


Figure ? : Heat Index (NOAA 2020)

Classification	Heat Index	Effect on the body
Caution	80°F - 90°F	Fatigue possible with prolonged exposure and/or physical activity
Extreme Caution	90°F - 103°F	Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity
Danger	103°F - 124°F	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity
Extreme Danger	125°F or higher	Heat stroke highly likely

Appendix C: National Weather Service Heat Terms

NATIONAL WEATHER SERVICE HEAT TERMS

EXCESSIVE HEAT WARNING – TAKE ACTION!	An Excessive Heat Warning is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this warning is when the maximum heat index temperature is expected to be 105° or higher for at least 2 days and night time air temperatures will not drop below 75°; however, these criteria vary across the country, especially for areas not used to extreme heat conditions. If you don't take precautions immediately when conditions are extreme, you may become seriously ill or even die.
EXCESSIVE HEAT WATCHES – BE PREPARED!	Heat watches are 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 ADVISORY – TAKE ACTION!	A Heat Advisory is issued within 12 hours of the onset of extremely dangerous heat conditions. The general rule of thumb for this Advisory is when the maximum heat index temperature is expected to be 100° or higher for at least 2 days, and night time air temperatures will not drop below 75°; however, these criteria vary across the country, especially for areas that are not used to dangerous heat conditions. Take precautions to avoid heat illness. If you don't take precautions, you may become seriously ill or even die.
EXCESSIVE HEAT OUTLOOKS – BE AWARE!	The outlooks are 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.

Appendix D: Heat-Related Illnesses (CDC)

<https://www.cdc.gov/niosh/topics/heatstress/heatrelillness.html>

Heat Stroke

Heat stroke is the most serious heat-related illness. It occurs when the body can no longer control its temperature: the body’s temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause permanent disability or death if the person does not receive emergency treatment.

SYMPTOMS	FIRST AID
Confusion, altered mental status, slurred speech Loss of consciousness (coma) Hot, dry skin or profuse sweating Seizure Very high body temperature Fatal if treatment delayed	Call 911 for emergency medical care Stay with the individual until the emergency medical services arrive Move the individual to a shaded, cool area and remove outer clothing Cool the individual quickly, using the following methods: With a cold water or ice bath, if possible Wet the skin Place cold wet cloths on the skin Soak clothing with cool water Circulate the air around the individual to speed cooling Place cold wet cloths or ice on the head, neck, armpits and groin; or soak the clothing with cool water

Heat Syncope

Heat syncope is a fainting (syncope) episode or dizziness that usually occur when standing for too long or suddenly standing up after sitting or lying. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

SYMPTOMS	FIRST AID
<ul style="list-style-type: none"> • Fainting (short duration) • Dizziness • Light-headedness from standing too long or suddenly rising from a sitting or lying position 	<ul style="list-style-type: none"> • Sit or lie down in a cool place • Slowly drink water, clear juice or a sports drink

Heat Exhaustion

Heat exhaustion is the body’s response to an excessive loss of water and salt, usually through excessive sweating. Heat exhaustion is most likely to affect the elderly, people with high blood pressure and those working in a hot environment.

SYMPTOMS	FIRST AID
<ul style="list-style-type: none"> • Headache • Nausea • Dizziness • Weakness • Irritability • Thirst • Heavy Sweating • Elevated body temperature • Decreased urine output 	<ul style="list-style-type: none"> • Take individual to a clinic or emergency room for medical evaluation and treatment • Call 911 if medical care is unavailable • Have someone stay with the individual until help arrives • Remove the individual from the hot area and give liquids to drink • Remove unnecessary clothing, including shoes and socks • Cool the individual with cold compresses or have the individual wash their head, face and neck with cold water • Encourage frequent sips of cool water

Heat Cramps

Heat cramps usually affect individuals who sweat a lot during strenuous activity. This sweating depletes the body’s salt and moisture levels. Low salt levels in muscles cause painful cramps. Heat cramps may also be a symptom of heat exhaustion.

SYMPTOMS	FIRST AID
<p>Muscle cramps, pain or spasms in the abdomen, arms or legs</p>	<p>Drink water and have a snack or a drink that replaces carbohydrates and electrolytes (such as sports drinks) every 15 to 20 minutes</p> <p>Avoid salt tablets</p> <p>Get medical help if the individual:</p> <ul style="list-style-type: none"> Has a heart problem Is on a low sodium diet Has cramps that do not subside within 1 hour

Heat Rash

Heat Rash is a skin irritation caused by excessive sweating during hot, humid weather

SYMPTOMS	FIRST AID
<ul style="list-style-type: none">• Red clusters of pimples or blisters• Usually appears on the neck, upper chest, groin, under the breasts and in elbow creases	<ul style="list-style-type: none">• Work in a cooler, less humid environment, if possible• Keep the rash area dry• Apply powder to increase comfort• Don't use ointments and creams

Rhabdomyolysis

Rhabdomyolysis (rhabdo) is a medical condition associated with heat stress and prolonged physical exertion. Rhabdo causes the rapid breakdown, rupture and death of muscle. When muscle tissue dies, electrolytes and large proteins are released into the bloodstream. This can cause irregular heart rhythms, seizures and damages to the kidneys.

SYMPTOMS	FIRST AID
<ul style="list-style-type: none">• Muscle cramps/pain• Abnormally dark (tea or cola-colored) urine• Weakness• Exercise intolerance• Asymptomatic	<ul style="list-style-type: none">• Stop activity• Drink more liquids (water preferred)• Seek immediate care at the nearest medical facility• Ask to be checked for rhabdomyolysis (i.e., blood sample analyzed for creatine kinase)

Appendix E: Cooling Centers

Glens Falls

Crandall Library		
Location: 251 Glen St	Criteria	Number
Crandall Public Library Contact Number: 518-792-6508 Contact Name: Contact Title:	Air conditioning Units?	
	Available drinking water?	
	Public Restroom w/ ADA compliance?	
	Seating for 10 or more people?	
	Hours of Operation	Communication means? (And Type)
Mon. – Thurs.	9 A.M. – 7 P.M.	ADA Compliant?
Fri. – Sat.	9 A.M. - 5 P.M.	Children’s Toys/Games?
After Hours		Continuous staffing? (1-2 persons min)
		Television?
		Generator?

The Open-Door Mission		
Location: 226 Warren St	Criteria	Number
The Open Door Mission Contact Number: 518-792-5900 Contact Name: Contact Title:	Air conditioning Units?	
	Available drinking water?	
	Public Restroom w/ ADA compliance?	
	Seating for 10 or more people?	
	Hours of Operation	Communication means? (And Type)
Mon. – Sat.	11 A.M. – 7 P.M.	ADA Compliant?
Sun.	11 A.M. - % P.M.	Children’s Toys/Games?
After Hours		Continuous staffing? (1-2 persons min)
		Television?
		Generator?

Queensbury

Aviation Mall		
Location: 578 Aviation Rd	Criteria	Number
Aviation Mall Contact Number: 518-793-8818 Contact Name: Contact Title:	Air conditioning Units?	
	Available drinking water?	
	Public Restroom w/ ADA compliance?	
	Seating for 10 or more people?	
	Hours of Operation	Communication means? (And Type)
Mon. – Sat.	11 A.M. – 7 P.M.	ADA Compliant?
Sun.	11 A.M. - 5 P.M.	Children’s Toys/Games?
After Hours		Continuous staffing? (1-2 persons min)
		Television?
		Generator?

Appendix F: Definitions

- Cooling Center:** A cooling center is a temporary air-conditioned public space set up by local jurisdictions to aid with the health effects of extreme heat over an extended period of time.
- Extreme Heat Event:** When temperatures reach 10° or more above the average high temperature for the region, last or predicted to last for a prolonged period of time. It is usually accompanied with high humidity.
- Heat Index:** This may also be referred to as the apparent temperature, it is what the temperature feels like outside to the human body when relative humidity combines with the air temperature.
- Relative Humidity:** Relative humidity (RH), which is expressed as a percentage, measures water vapor relative to the temperature of the air. More simply, it is a measure of the actual amount of water vapor in the air compared to the total amount of vapor that can exist in the air at its current temperature.

Appendix G: Acronyms

ADA	American Disabilities Act
CEMP	Comprehensive Emergency Management Plan
NWS	National Weather Service
OES	Office of Emergency Services
PIO	Public Information Officer

References

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