

Heat Emergency Plan

Town of Canaan, New York



**Adopted by the Canaan Town Council
May 11, 2026**

1. Purpose and Definitions

Purpose

The Town of Canaan Heat Emergency Plan establishes coordinated procedures to prepare for, respond to, and recover from extreme heat events.

This Plan supports the following objectives:

- Maximize protection of life and minimize illness and death caused by extreme heat and humidity.
- Identify and support vulnerable populations.
- Establish coordinated response procedures.
- Designate and operate cooling centers.
- Provide clear public communication before, during, and after heat events.

Extreme heat is among the deadliest weather-related hazards in the United States and constitutes a public health emergency. Unlike storms or floods, extreme heat may cause no visible damage yet consistently results in significant health impacts, particularly among older adults and medically vulnerable individuals.

This Plan supplements the Town of Canaan Emergency Preparedness Plan and operates under the authority of New York State Executive Law Article 2-B. It aligns with New York State Climate Smart Communities adaptation and resilience objectives.

Every emergency is different and the response is dictated to some extent by the circumstances that surround it. The guidance in this document will inform the preparation for and response to each extreme heat event.

This plan was developed by Canaan's Climate Smart Task Force in consultation with the Town Supervisor, the fire companies serving the Town of Canaan and Canaan's Representative to the Senior Advisory Council.

Definitions

Heat Alerts

The National Weather Service (NWS) issues heat alerts to keep the public informed about danger levels. These are summarized below.

Extreme Heat Watch—Be Prepared! An Extreme Heat Watch is issued when conditions are favorable for an extreme heat event, but its occurrence and timing is still uncertain. Plan to suspend all major outdoor activities if a warning is issued. If you do not have air conditioning, locate the nearest cooling shelter or discuss staying with nearby family or friends who have air conditioning.

Heat Advisory—Take Action! A Heat Advisory is issued for dangerous heat conditions that are not expected to reach warning criteria. Consider postponing or rescheduling outdoor activities, especially during the heat of the day. If you must be outside, be sure to drink plenty of water and take frequent breaks in the shade. Stay in a cool place, especially during the heat of the day and evening.

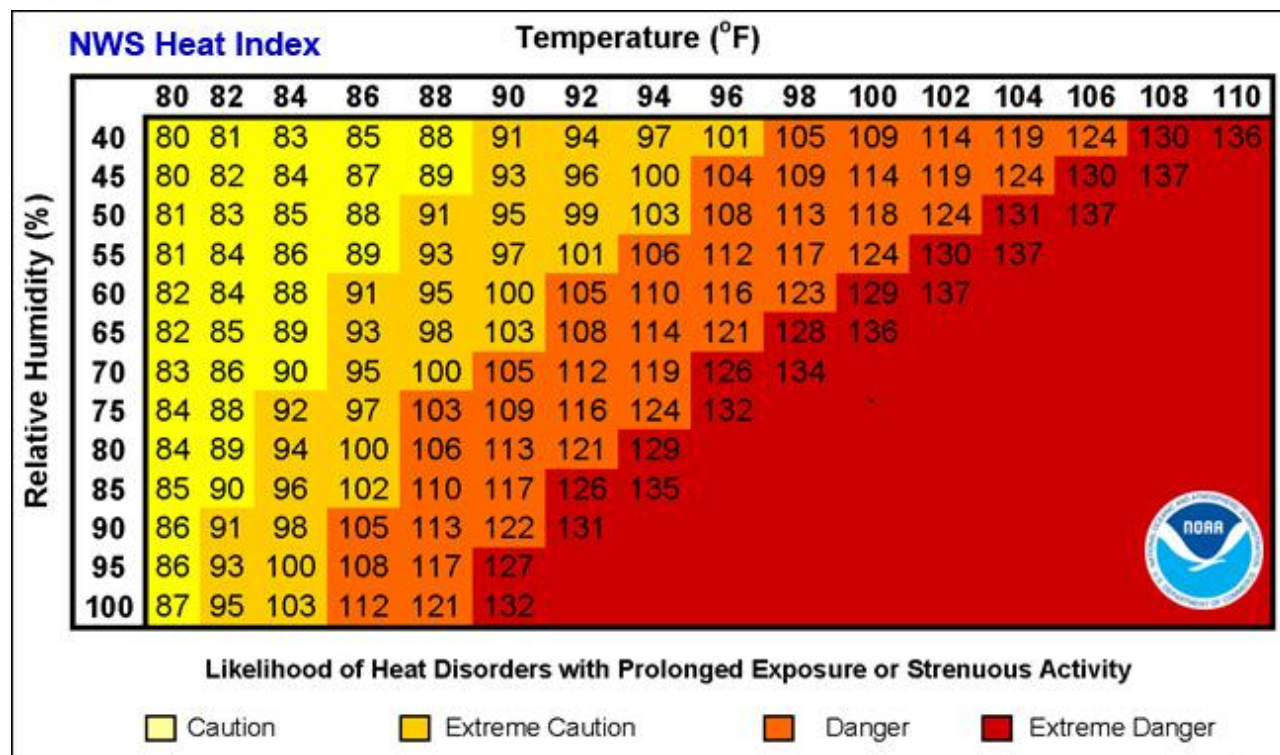
Extreme Heat Warning—Take Action! An Extreme Heat Warning is issued when extremely dangerous heat conditions are expected or occurring. Avoid outdoor activities, especially during the heat of the day. If you must be outside, be sure to drink plenty of water and take frequent breaks in the shade. Stay indoors in an air-conditioned space as much as possible. Check on family and neighbors.

Source: <https://www.weather.gov/safety/heat-ww>

The Heat Index

The heat index is what the temperature feels like to the human body when relative humidity is combined with the air temperature. When the body gets too hot, it perspires to cool itself off. When the relative humidity is high, the rate of evaporation from the body decreases. In other words, the human body feels warmer in humid conditions. The opposite is true when the relative humidity decreases, because the rate of perspiration increases. The body feels cooler in arid conditions. There is direct relationship between the air temperature and relative humidity and the heat index: as the air temperature and relative humidity increase (decrease), the heat index increases (decreases).

Heat Index Classifications



The heat index values in the chart above are for shady locations. If you are exposed to direct sunlight, the heat index value can be increased by up to 15°F. As shown in the table below, heat indices of 103°F or above can lead to dangerous heat disorders with prolonged exposure and/or physical activity in the heat.

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

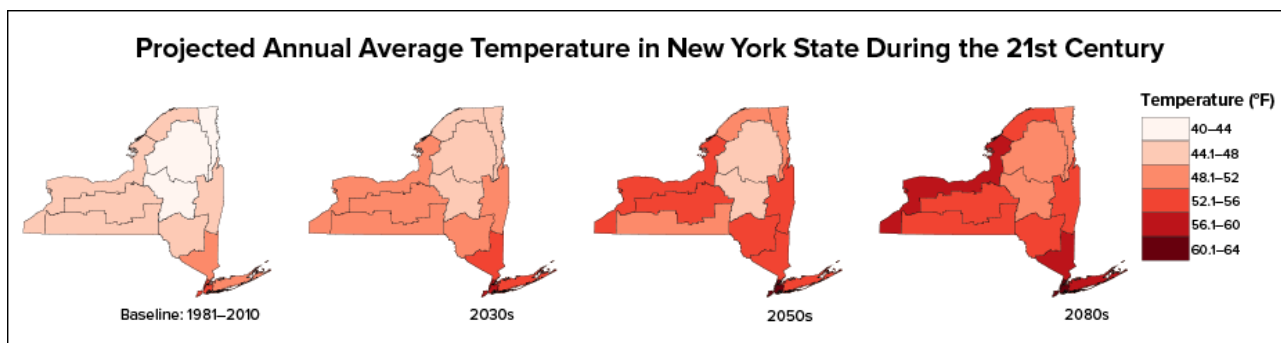
Source: National Weather Service: <https://www.weather.gov/ama/heatindex>

Climate Change and Warming Trends

Average temperature

Average temperature is defined as the daily average air temperatures at ground level, averaged over an entire year. According to the [New York State Climate Impacts Assessment \(2024\)](#), average temperatures in the state are rising:

- **Historical observations:** Since 1901, average temperatures in New York State have increased by almost 2.6°F. Temperatures since 2000 have been higher than in any period in recorded history. New York has warmed more quickly than the U.S. average.
- **Projections for the future:** Average temperatures are projected to increase in all regions of the state between about 5°F and 11°F by the end of the century.



Source: <https://nysclimateimpacts.org/explore-the-assessment/new-york-states-changing-climate/nysc-temperature/>

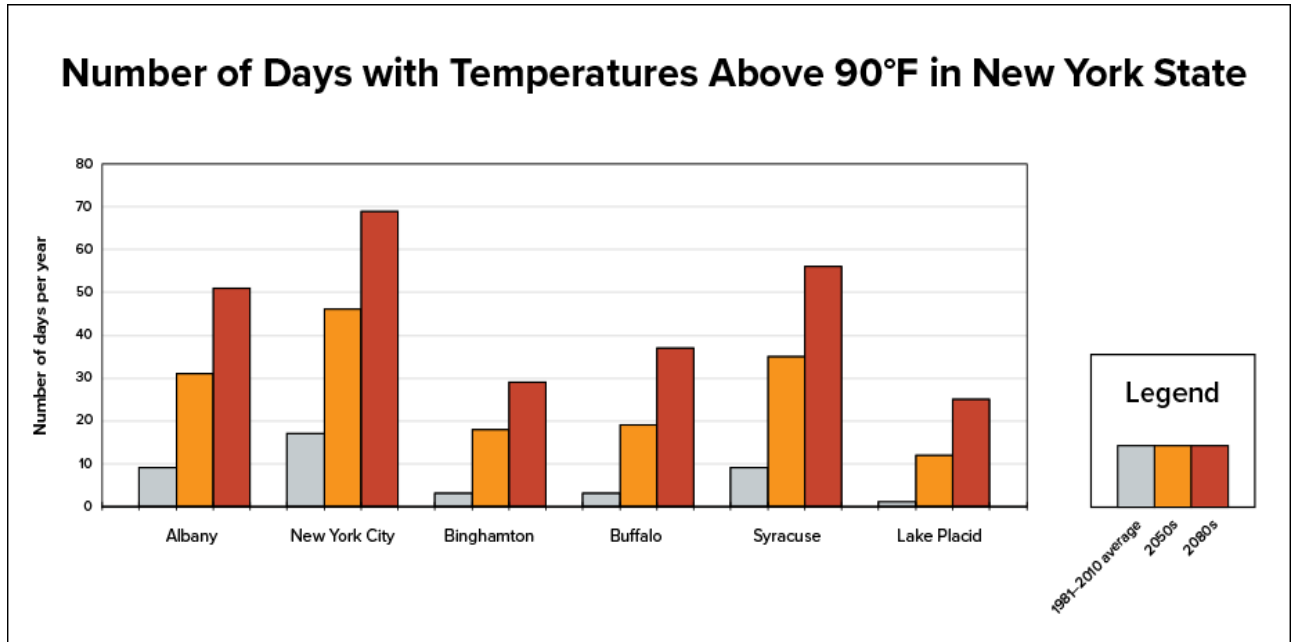
Extreme Heat and Heat Waves

A heat wave is defined as three or more days in a row with maximum temperatures at or above 90°F. Heat waves are expected to occur more often and become more intense, posing greater risks for human health, built infrastructure, ecosystems, and other sectors.

Although New York State already experiences some very hot days, evidence shows that extremely hot days are happening more often:

- **Historical observations:** Days over 90°F occur somewhat regularly in New York City but are uncommon in northern parts of the state. A U.S. Environmental Protection Agency analysis found that heat waves became more frequent in the metropolitan areas of Albany and Buffalo from 1961 to 2021.

- **Projections for the future:** Days above 90°F and days above 95°F are projected to become more common across all regions of New York. Multiday heat waves are expected to occur more often and last longer in the decades ahead.



Source: <https://nysclimateimpacts.org/explore-the-assessment/new-york-states-changing-climate/nysc-temperature/>

Extreme heat poses risks to people’s health, as well as wildlife, infrastructure, and parts of the economy. In the United States, extreme heat causes more deaths than any other type of extreme weather. Extreme heat is especially dangerous when it lasts for several days. Heat waves affect all New Yorkers, but especially low-income households with less access to air conditioning, outdoor workers, older adults, children, unhoused people, and people with medical conditions. In addition to increasing health risks for people, warmer temperatures contribute to conditions that allow invasive species and pests to spread, increase drought risk, and stress animal species that need a colder climate.

2. Vulnerable Populations

Heat Vulnerability Index

The Heat Vulnerability Index (HVI) helps to quickly identify heat-vulnerable populations. The New York State Department of Health calculates a Heat Vulnerability Index for local communities using four categories of vulnerability:

Category	Description
Elderly Isolation/ Elderly Vulnerability	Elderly people are often the first population to be affected by extreme heat, especially those who are socially isolated from family and the community - they face additional challenges including fewer options for healthcare and timely assistance. Efforts to reduce the health effects of heat should also target the elderly. <i>Canaan's Elderly Vulnerability: Medium</i>
Environmental Vulnerability	Built environment and urban heat island effect contribute to heat vulnerability in urban areas. Unlike surfaces covered in vegetation, areas covered by sealed surfaces, such as asphalt and concrete (buildings and pavements), tend to retain heat. Developing parks, increasing green space, constructing green roofs, and using materials that cool rooftops and pavements can help with regional cooling. <i>Canaan's Environmental Vulnerability: Medium</i>
Language Vulnerability	Among populations with limited understanding of English, language is often a barrier to accessing resources and understanding alert messages issued in English during heat events. Heat awareness messages should be announced in the common languages spoken in the area to best communicate heat risks. <i>Canaan's Language Vulnerability: Medium</i>
Socio-economic Vulnerability	Economic status of individuals can affect how they cope with extreme heat. While recommendations to use air conditioners during hot days are typically a part of cool-down messaging, this may not be an affordable option for low-income households. Community resources like cooling centers can provide the public a few hours of relief from hot weather. <i>Canaan's Socio-economic Vulnerability: Medium</i>

Sources: https://www.health.ny.gov/environmental/weather/vulnerability_index/
https://www.health.ny.gov/environmental/weather/vulnerability_index/docs/columbia.pdf

Although the Town of Canaan's overall HVI falls below the average for New York State, it is still important to have a robust heat emergency plan in place given the unpredictability of weather patterns and the growing frequency and intensity of extreme heat events.

Identifying Vulnerable Populations

Understanding who is at greatest risk helps to protect residents, whether by reducing their exposure, improving access to cooling, or simply raising awareness. At-risk groups include children, older adults, people with disabilities, low-income communities, indoor and outdoor workers, emergency responders, pregnant women, people who lack housing and/or quality housing, people with health issues and athletes.

Source: <https://heat.gov/who-is-most-at-risk-to-extreme-heat/>

Based on the American Community Survey (2024), Canaan has a total population of 1,791 people with the following demographic characteristics:

Demographics	Number of People	Percent of Population	Vulnerability Categories	Suggested Action
Total population	1,791	100%		
Adults age 65 or older	541	30%	Elderly Isolation	Cooling center, direct outreach
Children under age 5	13	0.7%	At-risk population	Cooling center, direct outreach
Language other than English spoken at home	78	4.4%	Language	Cooling center, translated materials
Persons in poverty	57	3.4%	Socio-Economic	Cooling center

Source : [American Community Survey, 2024](#)

There will be overlap in these numbers, e.g. adults age 65 or older who speak a language other than English at home.

3. Local Response

Trigger for Activation

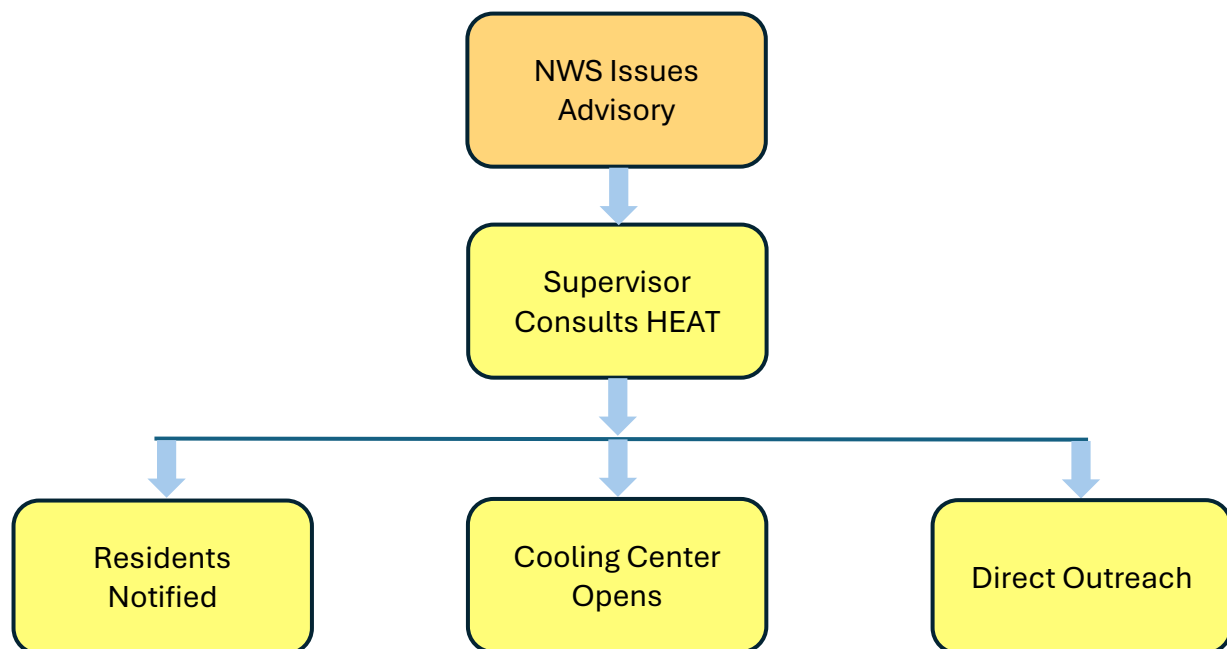
The trigger for activating this Heat Emergency Plan is when the National Weather Service (NWS) issues an Extreme Heat Advisory, generally when the Heat Index values remain between 95-104 degrees for 2 or more consecutive hours.

Heat Emergency Action Team

The Heat Emergency Action Team (HEAT) is made up of the Town Supervisor, Town Clerk, Highway Clerk, and one member of the Climate Smart Task Force. This team is responsible for communicating to residents about the Heat Emergency, staffing the Cooling Center and directing outreach to vulnerable residents.

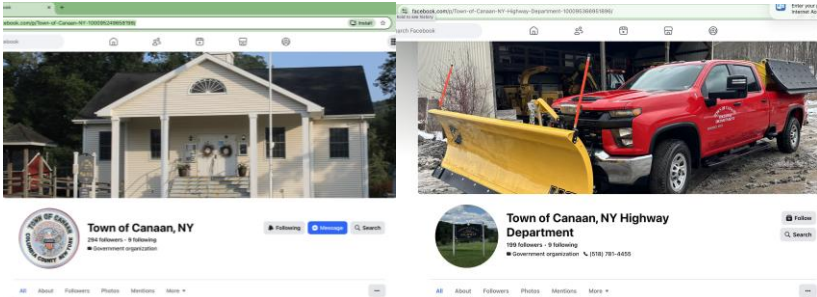
Heat Emergency Protocol

Upon receipt of an Extreme Heat Advisory, the Town Supervisor declares a Heat Emergency and notifies the other members of the Heat Emergency Action Team. The Team decides on the hours and staffing of the Cooling Center and communicates that information to residents. The Team also oversees outreach to vulnerable residents, either directly or through volunteers.



Keeping Residents Informed

Canaan uses several communications channels to keep resident informed, including about weather-related events.

Medium	Description
Website	www.canaannewyork.org until canaanny.gov is ready
Facebook: - Town of Canaan page - Canaan Highway Department page	
Town email	The town maintains a list of approximately 800 residents who have opted in to town communications via email. They receive the town's regular newsletter and any time-sensitive information as needed.
Direct outreach	The town checks on vulnerable residents through direct outreach from the Heat Emergency Action Team and/or local volunteers.

Declarations of Heat Emergencies from the town will include the following information:

- Expected temperatures and duration of heat event, with links to the local NWS site.
- Cooling center hours and link to the New York State [website](#) for cooling centers
- Tips on staying cool (e.g., from [FEMA](#), [Heat.gov](#), [American Red Cross](#), [New York State](#))
- How to sign up for [New York State weather alerts](#).

The Heat Emergency Action Team also maintains a list of residents who have opted in to receive check-in calls during emergencies, and of volunteers willing to make such calls. The Heat Emergency Action Team will make sure all such individuals are contacted after a heat emergency declaration.

Coordination with Columbia County Department of Emergency Services

The Heat Emergency Action Team will work with the Columbia County Office of Emergency Management to make sure that the town's response is coordinated with the County's.

Coordination with Utilities

NYSEG (<https://www.nyseg.com/>) supplies power to Canaan residents. The Town is in regular contact with officials at NYSEG and there is direct communication during conditions that impact local power (e.g., storms, fire, heat and snow advisories). There is also ad hoc communication as required.

4. Cooling Centers

Cooling Centers are a key means to provide relief during heat emergencies. Canaan's Town Hall serves as the town's cooling center and provides sufficient capacity based on Town demographics. Information about the cooling center is summarized below:

	• Name: Canaan Town Hall • Address: 1647 County Route 5, Canaan, NY 12029 • Handicap Accessible: Yes • Generator: Yes • Air-Conditioned: Yes • Rest Rooms: Yes (3) • Town Owned: Yes • Other features: Kitchen, Wifi
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Canaan's cooling center can be found on the New York State Department of Health list: <https://www.health.ny.gov/environmental/weather/cooling/>.

5. Plan Updates and Revisions

This Heat Emergency Plan will be reviewed **on an annual** basis and updated as needed. It may be updated more frequently in the following situations:

- New York State or Columbia County updates its requirements and recommendations;
- The Town Supervisor determines that a review is required.

6. Resources and Exhibits

- **American Red Cross Extreme Heat Safety**
- **Heat.Gov: Science and Information to Reduce Heat Risk**
- **Ready.Gov/Heat (Federal Emergency Management Agency)**
- **National Weather Service Heat Safety Tips and Resources**
- **New York State Department of Public Health: Extreme Heat Advice**

The screenshot shows the National Weather Service website with a navigation bar including Home, Forecast, Past Weather, Safety, Information, Education, News, Search, and About. The main heading is "Heat Cramps, Exhaustion, Stroke" with a sub-link "Weather.gov > Safety > Heat Cramps, Exhaustion, Stroke". A "Safety National Program" logo is in the top right.

Below the heading is a navigation bar with tabs: Heat Safety, Watches and Warnings, Heat Forecast Tools, During a Heat Wave, and Heat Related Illnesses. The "Heat Safety" tab is active, showing a comparison between Heat Exhaustion and Heat Stroke.

Heat Exhaustion	Heat Stroke
ACT FAST • Move to a cooler area • Loosen clothing • Sip cool water • Seek medical help if symptoms don't improve	ACT FAST CALL 911 • Move person to a cooler area • Loosen clothing and remove extra layers • Cool with water or ice
<i>Symptoms:</i> Dizziness, Thirst, Heavy Sweating, Nausea, Weakness	<i>Symptoms:</i> Confusion, Dizziness, Becomes Unconscious
<i>Heat exhaustion can lead to heat stroke.</i>	<i>Heat stroke can cause death or permanent disability if emergency treatment is not given.</i>

Logos for NOAA, CDC, and MOSH are at the bottom left. The text "Stay Cool, Stay Hydrated, Stay Informed!" is at the bottom center. A "Heat Safety Resources" sidebar on the right lists: Heat.gov, Children, Pets and Vehicles, Seasonal Safety Campaign, Ultraviolet (UV) Safety, Games and Activities for Kids, Survivor Stories, Education and Outreach, and Links and Partners.

During extremely hot and humid weather, your body's ability to cool itself is challenged. When the body heats too rapidly to cool itself properly, or when too much fluid or salt is lost through dehydration or sweating, body temperatures rise and you or someone you care about may experience a heat-related illness. It is important to know the symptoms of extreme heat exposure and the appropriate responses. The Centers for Disease Control and Prevention (CDC) [provides a list of warning signs and symptoms of heat illness, and recommended first aid steps](#). Some of these symptoms and steps are listed below.

Source: <https://www.weather.gov/safety/heat-illness>



BE PREPARED FOR EXTREME HEAT

Extreme heat often results in the highest annual number of deaths among all weather-related disasters.

FEMA
FEMA V-1004/June 2018

In most of the U.S., extreme heat is a long period (2 to 3 days) of high heat and humidity with temperatures above 90 degrees.



IF YOU ARE UNDER AN EXTREME HEAT WARNING

Find air conditioning, if possible.



Check on family members and neighbors.

Avoid strenuous activities.



Drink plenty of fluids.

Watch for heat illness.



Watch for heat cramps, heat exhaustion, and heat stroke.

Wear light clothing.



Never leave people or pets in a closed car.

Source: https://www.ready.gov/sites/default/files/2024-03/ready.gov_extreme-heat_hazard-info-sheet.pdf

Appendix A: Cooling Center Rules

Age Guidelines

- Individuals under the age of 11 must be supervised by a person 16 or older while at the Cooling Center.

Assumption of Risk

- Users will sign in on arrival, **sign-up sheet provided and maintained by the town.**
- It is the responsibility of the individual to read and obey all rules.
- All users are financially responsible for all expenses related to injuries and emergency care, including medical and ambulance fees.

Code of Conduct

- Individuals using the Cooling Center are expected to conduct themselves in a respectful and appropriate manner. Any individual violating this expectation may be asked to leave the facility. Prohibited conduct includes:
 - Smoking, drinking alcoholic beverages or using recreational drugs
 - The use of abusive or profane language.
 - Disrupting other individuals using the facility.
 - Threatening the health or safety of others.

The town will post and provide a printed Code of Conduct in English and Spanish.

- Service animals and pets are permitted if well-behaved and kept on a leash or in a crate.
- **Harmful Objects are prohibited on the premises.**
- Music: Headphones or earbuds must be used when listening to music, **videos, etc**

Appendix B: Checklist for Staff or Volunteers on Cooling Center Duty

Before Opening

- ☐ Inspect Town Hall meeting room and bathroom. Notify Supervisor of any existing damage and mitigate any potential hazards.
- ☐ Place sign outdoors noting that the Cooling Center is open and hours of operation.
- ☐ Place sign-in sheet and Cooling Center rules on table by the door.

During Opening Hours

- ☐ Greet residents using the Cooling Center and ask them to sign in.
- ☐ Identify / provide separate location within the Cooling Center room for oxygen users.
- ☐ Monitor usage and ensure rules are followed.

After Heat Emergency ends

- ☐ Bring outdoor sign back inside and put it away.
- ☐ Collect the sign-in sheet and Cooling Center rules and leave for Supervisor.
- ☐ Make sure the facility is returned to its pre-activation condition. Document any concerns and communicate them to the Supervisor.