

# Chatham County Heat Action Plan

An action plan for responding to excessive heat and heat waves.

January 24, 2024

# ABOUT THE PLAN

This document presents a comprehensive overview of Chatham County's actions in response to high temperatures and heat waves. Development of this document was supported by the North Carolina Office of Resiliency and Recovery (NCORR), the North Carolina State Climate Office of North Carolina (NCSCO), North Carolina Department of Health and Human Services (NC DHHS), and the Nicholas Institute for Energy, Environment & Sustainability at Duke University.

#### State Extreme Heat Response and Coordination

North Carolina Emergency Management (NCEM) leads the state of North Carolina's actions in heat emergency response, which is triggered by National Weather Service (NWS) Heat Advisories, Heat Watches, and Heat Warnings. As part of the state's response to heat event, NCEM liaises with federal agencies on response actions, performs outreach to local emergency managers once a Heat Advisory has been issued, and manages public information and engagement of local media through the State Joint Information Center. The NC Department of Health and Human Services Division of Public Health serves as the Lead Technical Agency for the state during a heat emergency and additionally reaches out to local health departments when a Heat Advisory has been issued by the NWS, conducts public heath outreach and education prior to and during heat events, and conducts health surveillance for heat related illness and injury.

While these state-level coordination and response activities facilitate the readiness and response of the state to an extreme heat event, the responsibility of emergency heat response primarily falls to North Carolina counties and their municipalities. The North Carolina Heat Emergency Response Plan recommends that counties "*develop comprehensive county emergency heat response plans in order to be prepared to quickly provide a unified response in heat crisis situations.*" (See <u>NC Emergency Operations Plan</u>, p. 437).

This document provides a county-level response plan for extreme heat events, as well as longerterm management strategies for coping with heat. Within Chatham County, the Chatham County Emergency Management and Public Health Department are the lead agencies for developing and implementing the County's response to adverse weather events, including extreme heat.



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# **PURPOSE OF THE HEAT ACTION PLAN**

In developing a Heat Action Plan, Chatham County aims to increase the resilience of residents to current and future heat and extreme heat events. Outlined in this plan are 4 actions the county is currently implementing or planning to pursue by 2024. Central to this plan are 3 key goals, outlined below:

Increase community awareness about the local impacts of extreme heat

Reduce the number of heat-associated illnesses in Chatham County

Collect evaluation data from education and outreach programs to develop future needs to address resiliency in the community during heat events

## Acknowledgements

Chatham County's Heat Action Plan was developed with contributions from many organizations, agencies, groups, and individual people.

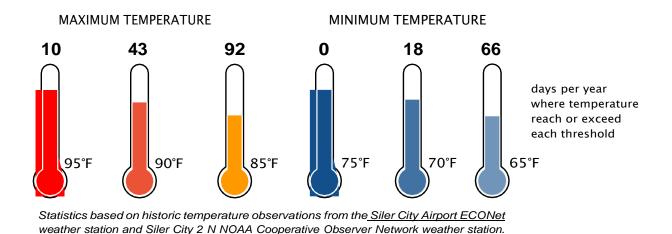
We would like to acknowledge the following for their contributions:

- Chatham County Public Health
- Chatham County Emergency Management
- Chatham County Public Libraries
- Chatham County Parks and Recreation
- Chatham County Schools
- Chatham County Climate Change Advisory Committee

# **BACKGROUND** HEAT IN CHATHAM COUNTY

Chatham County's typical summertime temperatures include high temperatures in the mid-toupper 80s and overnight lows in the mid-60s (°F). Throughout the warmest months of the year (May-October), weather patterns may yield **extreme heat** conditions (also termed excessive heat), defined as summertime temperatures that are much hotter and/or humid than average.<sup>2</sup> These extreme heat conditions may sometimes be associated with heat waves, defined as periods of abnormally hot weather, often associated with high humidity, that typically last two or more days.<sup>3</sup>

In North Carolina, heat waves often occur when an area of high pressure sits over the region for an extended period of time. This atmospheric pattern typically brings clear skies and fair weather, while the high pressure in the atmosphere acts like a dome or cap, trapping heat in place. When this weather pattern is in place for a few days in a row, temperatures can creep up, stay high, and lead to an **extreme heat event** that has the potential to cause heat-related illnesses.



FUTURE HEAT

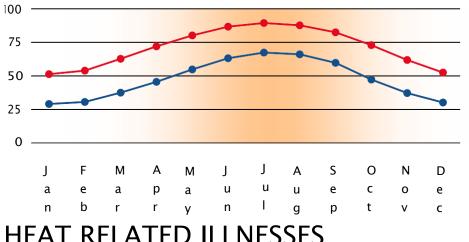
Consistent with historical trends, the state of North Carolina, including Chatham County, is projected to experience warming temperatures, especially at nighttime. The likelihood of extreme heat events is also projected to increase in the state, making extreme heat an important hazard for North Carolinians to be prepared for now and into the future.

NOAA National Centers for Environmental information, Climate at a Glance: County Mapping, accessed June 9, 2023 https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/mapping

<sup>2</sup> About Extreme Heat, Centers for Disease Control and Prevention, accessed June 6, 2023 https://www.cdc.gov/disasters/extremeheat/heat\_guide.html

<sup>3</sup> National Weather Service Glossary, National Weather Service accessed June 6, 2023 https://wl.weather.gov/glossary/

While extreme heat events represent acute conditions when temperatures and humidity levels may pose serious health risks to people, Chatham County often experiences temperatures throughout the summer that may lead to adverse health impacts, particularly in populations who are more vulnerable to heat. Actions to plan for, prepare, and respond to heat are therefore important throughout the entire May-October heat season.



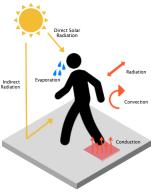
MONTHLY AVERAGE TEMPERATURES AND HEAT SEASON LENGTH

Monthly normal temperatures from the National Centers for Environmental Information.

The first day with maximum air temperatures 85 F or higher typically occurs in mid-late April, while the last day typically occurs in early October. Statistics based on historic temperature observations from the Siler City Airport ECONet weather station and Siler City 2 N NOAA Cooperative Observer Network weather station.

## HEAT RELATED ILLNESSES

In order to cool down the body, a person will sweat to release heat and provide a source of moisture for evaporation, which cools the skin surface. When the humidity is high, as is common during heat waves in North Carolina, evaporative cooling through sweating becomes less efficient. Additionally, temperatures do not cool as much at night during higher levels of humidity, exacerbating the impacts of a heat wave because the body has no relief from the oppressive conditions.



A variety of illnesses are referred to as "heat-related illness" and occur when the body overheats as a result of protracted exposure to high temperatures or vigorous physical activity in hot situations. While the body normally cools itself by sweating, during extreme heat, this might not be enough. In these cases, a person's body temperature rises faster than it can cool itself down. This can cause damage to the brain and other vital organs. Examples of heat related illnesses include heat cramps, heat exhaustion and heat stroke.



Painful muscle cramps in the abdomen (belly), arms, or legs following strenuous activity and typically caused by a loss of fluids and electrolytes from excessive sweating. Additional symptoms include moist and cool skin, and normal or slightly raised pulse.



A more severe heat illness whose symptoms can include: increased thirst, body cramps, fainting, rapid pulse, nausea and/or vomiting, heavy sweating, cool/clammy skin, headache, and a raised body temperature (but less than 104°F).



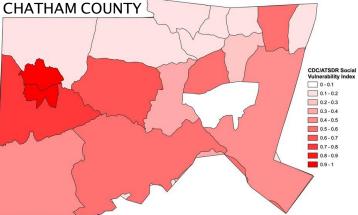
The body cannot regulate its own temperature and medical care is needed. Symptoms include high fever, cessation of sweating, hot dry skin, severe headache, and, in severe cases, collapse, and convulsions or coma.

## SOCIAL VULNERABILITY AND HIGH RISK GROUPS

The Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry Social Vulnerability Index (CDC/ATSDR SVI) was created to help public health officials and emergency response planners identify and map the communities that will most likely need support before, during, and after a hazardous event, such as an extreme heat event. The SVI ranks each US Census tract based on 16 social factors to indicate the relative vulnerability of each tract from 0 (lowest vulnerability) to 1 (highest vulnerability).

Based on 2020 US Census data, the overall CDC/ATSDR SVI ranking for Chatham County is 0.42, which indicates a **low to medium level** of vulnerability.





#### Certain groups are more vulnerable to extreme heat, including:

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- Infants and Children: Infants and children are not able to regulate their body's temperature. Infants and young children rely on others to keep them cool and hydrated when it's hot outside.
- Older Adults (65+): Older adults do not adjust as well as young people to sudden changes in temperature. In addition, they are more likely to have a chronic medical condition that changes normal body responses to heat, and are more likely to take prescription medicines that affect the body's ability to control its temperature or sweat.

Pregnant Persons: Pregnant persons are more likely to get heat exhaustion, heat stroke, or other heat-related illness sooner than nonpregnant persons. This is because their bodies must work harder to cool down both the pregnant person's body and the developing baby. Pregnant persons are also more likely to become dehydrated, limiting their ability to cool themselves by sweating.

- Athletes and Outdoor Workers: People who exercise or spend time outdoors in extreme heat are more likely to become dehydrated and get heat-related illness.
  - Chronic Conditions: Extreme heat can be dangerous for anyone, but it can be especially dangerous for those with chronic medical conditions. Those with chronic conditions may be less likely to sense and respond to changes in temperature. In addition, they may be taking medications that can make the effect of extreme heat worse.
  - Persons taking certain medications: Some medications may interfere with the body's ability to regulate its temperature, making individuals more susceptible to heat.
  - Low Income: Individuals and families with low incomes are more likely to live in poorly ventilated apartments or mobile homes, lack access to air conditioners, or are unable to afford the costs of cooling.

## **Additional County Vulnerability Considerations**

While all towns and communities incorporated within the County are vulnerable to the effects of the heat, there may be heightened vulnerability considerations in certain areas of Chatham County.

## **Vulnerability Considerations**

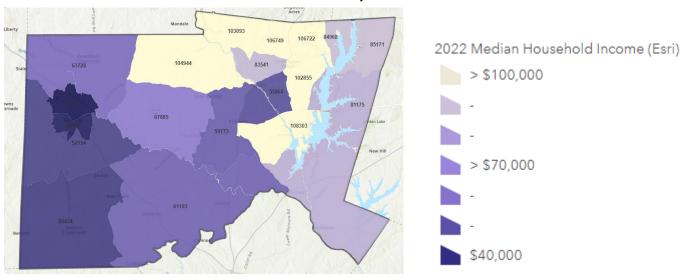
Access to air conditioning is the strongest protective factor against heat related illness. Households in the town of Siler City earn considerably lower average incomes than their Pittsboro counterparts according to Census reports. The 2021 Chatham County community assessment also found that Siler City households are nearly twice as likely to report having severe housing problems. Siler City also experiences disproportionately high temperatures on summer days, when compared to temperatures recorded across the rest of the County.

Northeast Chatham County includes a larger population of residents 65 years or older. This population is at notable risk for heat related illnesses.

## Mapping Vulnerability across Chatham County

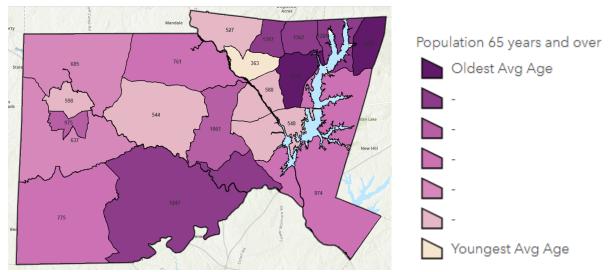
Below, **Figure 1** shows the average incomes of residents across the different towns and unincorporated communities of Chatham County. **Figure 2** shows the share of persons aged 65 years or older across Chatham County. **Figure 3** shows which places across Chatham County tend to experience the most extreme temperatures on summer days.

#### Figure 1



Median Incomes across Chatham County

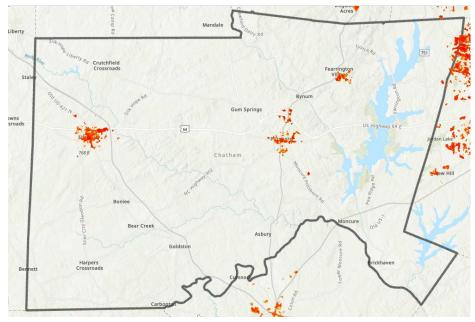
## Figure 2



## Persons 65 Years or Older across Chatham County

## Figure 3

Heat Islands in Chatham County (Heat Severity USA 2021 The Trust for Public Land GIS Layer)



# HEAT ACTION PLAN

Operationally, heat waves are determined when the temperatures exceed some threshold for a sustained amount of time. They usually have the most impacts during summer months when normal temperatures are already high.

Chatham County receives its weather warnings and advisories from the National Weather Service in Raleigh, NC. The NWS is a federal agency that provides weather and climate forecasts and warnings to the public for the purposes of protection, safety, and general information.

The National Weather Service issues public advisories when extreme heat conditions are expected. The criteria for these are listed below:

#### **HEAT ADVISORY**

Heat index values 105°F to 109°F for 2 or more hours and/or excessive heat for 3 consecutive days.

#### **EXCESSIVE HEAT WATCH**

Conditions are favorable for an excessive heat event to meet or exceed local Excessive Heat Warning criteria; valid for the entire heat episode and not just the daytime hours.

#### **EXCESSIVE HEAT** WARNING

Heat index values 110°F or higher for 2 or more hours.

#### HEAT INDEX



The Heat Index, also called the "apparent temperature," is a measure of how hot it really feels when the relative humidity is added to the actual air temperature.



EXCESSIVE Excessive heat occurs from a combination of high temperatures (significantly above normal) and high humidities.

The following definitions are used in this Plan as triggers for specific heat response actions:

- A heat wave or extreme heat event is considered imminent when the National Weather Service in Raleigh issues a Heat Advisory, Excessive Heat Watch, and/or Excessive Heat Warning.
- The heat season shall begin on the first date where the maximum temperature reaches 85°F or May 1, whichever is earlier, and shall end on the last date when the maximum temperature reaches 85°F or October 30, whichever is later.

# HEAT ACTION PLAN

## Heat Season Interventions: Phase I

The following interventions will be undertaken after the first date where the maximum temperature reaches 85°F or May 1, whichever is earlier, when temperatures are typically hottest and adverse health impacts from heat are observable. The season shall end on the last date when the maximum temperature reaches 85°F or October 30, whichever is later.

## Phase I – Seasonal Readiness

- Review existing plans, procedures and resources with key stakeholders. Consider a Heat Season kickoff meeting/call.
- Confirm contact information and notification methods of key stakeholders.
- Verify availability of key facilities.
- Discuss transportation methods that may be utilized during a Heat Emergency.
- Prepare to initiate awareness campaigns.
- Provide Chatham County specific heat safety script for 2-1-1.
- Increase public awareness by providing general information about measures to reduce extreme heat related risks and promote preparation efforts.
- Confirm details of agency or department participation (e.g., outreach to homelessness service providers, Aging Services outreach to seniors).
- Update information and risk communication processes for vulnerable populations.
- Coordinate with Public Health and Chatham County PIO for media notification, press releases, updates to appropriate websites, etc., to include information about available Cooling Centers and/or strategies for protection from the elements.
- Offer Heat Emergency Awareness training for responders and employers, to include:
  - o Signs and symptoms of heat-related illness
  - Appropriate response to signs and symptoms of heat-related illness
  - o Basic training on National Weather Service's Heat Advisory, Watch, and Warning system
  - $\circ$  Work/rest cycles and other heat stress control measures
  - o Occupational Safety and Health Administration's guidance on heat-related illness<sup>1</sup>
  - Heat index charts
  - o Resource on heat-related illness
  - Universal access and fundamental knowledge of diversity of population and how to ensure all have access to information and could benefit from interventions

<sup>&</sup>lt;sup>1</sup> Available on OSHA.gov website at <u>https://www.osha.gov/otm/section-3-health-hazards/chapter-4</u>

# Heat Event Interventions: Phase II and Phase III

The following interventions will be undertaken in response to a heat event, and may occur before, during, and/or after an extreme heat event or heat wave.

## Phase II - Excessive Heat Watch

Benchmarks for Phase II are monitored by local government and include but are not limited to credible predictions by the National Weather Service (NWS) of extreme heat or of power outages during warmer than normal weather conditions in Chatham County. During this phase, contact with local agencies, stakeholders and coordination among State agencies increases.

All phase one activities shall have already taken place, Phase II actions may be initiated when one or more of the following exists:

- NWS Raleigh Forecast Office provides an outlook with an extended period (3+ days) of above average temperatures.
- NWS Raleigh issues an *Extreme Heat Watch*.
- Substantial increase in heat-related EMS calls and/or emergency department visits.
- Projected abnormal animal mortality rates.
- Credible predictions of power outages, electrical blackouts, or rotating blackouts. SMUD has identified industry power shortages or limitations and will be asking customers to reduce or ration electrical usage.
- Extreme Heat accompanied by electrical blackouts or rotating outages in Chatham or an adjoining county.

Phase II Actions Include:

- Chatham EM Staff Duty Officer (SDO) will make appropriate partner and stakeholder notifications including activating a seasonal incident in their disaster management software.
- Participate in periodic partner/stakeholder calls as needed regarding weather and power situation updates. Weather coordination calls are conducted with key agencies to provide /gather weather and utility updates, upon issuance of an NWS Extreme Heat Watch and will continue each day the watch is in effect.
- Chatham EM SDO will track and fill resource requests from cooperating agencies choosing to open Cooling Centers.
- Chatham County Public Health may issue a Health Alert.
- Collaborate to identify any anticipated needs or problems.
- Chatham County Department of Social Services (DSS) may consider instituting weather cooling motel vouchers to highly vulnerable unsheltered persons, dependent upon funding and room availability.
- Chatham EM SDO will coordinate to determine the readiness and availability of resources.
- Chatham Public Health and Chatham EM SDO will coordinate with PIOs to issue joint press releases increasing awareness of the risks from extreme heat conditions for vulnerable populations and the general public.

- Release critical pre-scripted and event-related public safety information via digital and traditional media pathways.
- Review criteria for Cooling Centers and Emergency Shelters, keeping in mind considerations for pets and possible 24-hour operations.
- Monitor impacts to agriculture including animal mortality, rendering plant impacts and coordination with industry. Determine potential impacts to landfills due to heat related animal mortality.

## Phase III - Excessive Heat Warning

Phase III actions may be taken when conditions pose a severe threat and one or more of the following exists:

- NWS Raleigh issues an Excessive Heat Warning for Chatham County.
- NWS Raleigh issues Heat Advisory, Excessive Heat Watch, or Excessive Heat Warning in addition to:
  - Abnormal human medical emergencies and mortality due to extreme heat conditions.
  - Local power utility emergency and/or extended power outages due to extreme heat conditions or supply constraints.
  - Abnormal animal mortality due to extreme heat.

Phase III efforts include urgent and comprehensive actions to complement and support local actions during the most extreme heat emergency conditions. The actions expand Phase II activities and include additional efforts.

Phase III Actions include all activities under Phase II, and:

- Chatham County Public Health may declare a local Health Emergency.
- Chatham EM Director may request a Local Emergency Proclamation, if applicable.
- Chatham County may activate its Emergency Operations Center (EOC), as needed to support response activities.
- Chatham EM Director may elect to open Congregate Care Shelter locations as Cooling Centers, if necessary.
- Confirm 2-1-1 will post Cooling Center locations on websites, if opened or activated.
- Increase press releases and public outreach informing public of Cooling Center locations and steps to take to alleviate risks of health impacts associated with extreme heat emergency conditions.
- Chatham EM SDO or Chatham EOC will coordinate requests for mutual aid, as necessary.
- Activate transportation plan to make Cooling Center(s) more accessible.
- Activate pet resources to make accessing a Cooling Center easier.
- Establish communication with local dialysis centers, skilled nursing facilities, and long-term care facilities to monitor for possible medical impacts if there is a concern regarding potential, prolonged, or rolling power outages or blackouts.
- Monitor rendering capacity statewide.
- Coordinate with local power utilities to identify Cooling Centers that should be exempted from rotating blackouts.

## **Heat Event Operations**

Chatham County recognizes the following terminology with regards to types of facilities likely to be leveraged in response to an excessive heat event:

## **Cooling Centers**

Indoor, air-conditioned locations that provide refuge from the heat during the day. Drinking fountains or bottled water is available. May allow for sitting, or lying down (depending on each facility) during hours of operation. These facilities do not provide individual or family case management, but may serve as a source of information for local services available to the public. Examples include public libraries, community centers, churches, park facilities, or the lobbies of some government and/or non-government organization and faith-based facilities. These facilities will likely NOT have a generator to provide backup power. During extreme heat, Cooling Centers help to reduce the prevalence of heat stroke, exhaustion, and cramps. However, Cooling Centers are not necessarily exclusive to warm weather protection. During extreme cold scenarios of the Winter months, access to Cooling Centers reduces the prevalence of cold-related illnesses such as hypothermia, frostbite, and chilblains among community members.

\* If your organization has any interest in volunteering as a Cooling Center in the temporary event of a weather-related emergency, please contact the Chatham County Environmental Health Director, Anne Lowry at (919) 545-8310 or the Chatham County Emergency Management Director, Steve Newton at (919) 545-8162.

## **Emergency Shelter**

Indoor, air-conditioned locations that offer hydration and allow for uninterrupted rest, sitting, or lying down (depending on each facility) during hours of operation. These facilities may provide individual and family case management, mass feeding, and may offer direct access to other local support services. Examples include designated Chatham County Shelter locations such as the Chatham Aging Services Senior Centers and some Chatham Public School facilities. These facilities are pre-planned for use as congregate care activities, and have generators to provide backup power.

## Points of Distribution (POD)

Locations where individuals can go to receive bottled water and other available donated items. Can be indoors or outdoors. Examples include town halls, churches, libraries, community centers, and other facilities that have reasonable access/egress routes.

# **APPENDIX**

## How your Organization can Serve the Community as a Cooling Center

We understand it would be impractical for most organizations to keep their doors open to the public throughout the *entire* hot (or cold) weather season, but we do ask about the possibility of your organization designating space as a **Cooling Center** in the case of a Countywide weather-related emergency. If your organization would be interested in joining the community response effort as a temporary center, we ask you to reach out to the Chatham County Environmental Health Director, Anne Lowry at (919) 545–8310 or the Chatham County Emergency Management Director, Steve Newton at (919) 545–8162 for more details. They will work with you to confirm if your facility's infrastructure is well-suited as a Cooling Center, and to set up a plan to provide further resources and support to your organization to ensure the transition into a **publicly-designated Cooling Center** during a time of need is made smoothly and with minimal disruption to your organization's facilities.

## Alternative ways your Organization can Help

We understand your organization may be feeling hesitant about being advertised in County communications as a Cooling Center open to the public (i.e. a **publiclydesignated Cooling Center**). If you know this as a concern, but do otherwise have interest in joining the community response, please reach out – we would be happy to work with you to confirm your facility's suitability as a temporary center for extreme heat (or cold) and provide related support, but *without* designating and **publicizing your status** as a Cooling Center in the County resources. You can serve as a more informal, but nonetheless extremely valuable community resource. Any contribution your organization may be able to provide to keep Chatham County residents safe and healthy would be greatly appreciated!

## Criteria for a Cooling Center

The tables provided (see page below) list important criteria for a facility's suitability as a temporary center supporting members of the Chatham community in an extreme weather event. For your organization's facility to be a good candidate, all "Critical Criteria" would ideally be met. We also provide a list of secondary criteria considered desirable, but not strictly necessary for the functioning of a Cooling Center.

#### **Critical Criteria**

The shelter has any necessary heating/cooling facilities in proper operating condition

Seating for ten or more persons

Accessible to people with disabilities/ADA compliant

Sanitary Facilities: Each person has access to sanitary facilities that are in proper operating condition, are private, and are adequate for personal cleanliness and the disposal of human waste

Potable drinking water (water fountains and/or bottled water)

Continuous staffing

Wireless Internet, Electrical Outlets and Charging Stations with a few cords for phones, iPads, laptops, etc.

A form of Entertainment or Activities (e.g., books, indoor recreation or play area, child friendly toys and games, televisions, computers)

Space is structurally sound to protect persons from the elements

Space has adequate ventilation and is free of pollutants

Illumination and electricity:

- a. Space has adequate natural or artificial illumination
- b. Space has sufficient electrical sources to permit the safe use of electrical appliances

If applicable, suitable space and equipment to store and serve food

Fire safety:

- a. At least one working smoke detector/fire alarm system in each occupied unit of the space
- b. There is a second means of exiting the building in the event of fire or other emergency

Area for Pets

**Secondary Criteria** 

Back-up generator

Free snacks (or affordable vending machines)

Parking lot

Toys and small furniture for children

Follow-up procedures for those in need of additional services (health care, social services)

Secure, facility has security service

Transportation for those lacking their own, including wheelchair accessible services

Facility is a pre-identified American Red Cross shelter site

## Graphics: National Weather Service Guidance for Extreme Temperatures

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

Table 1: Heat Index and Effects on Body

Chart 1: Heat Index and Danger Designation

	NWS	He	at Ir	ndex			Te	empe	rature	e (°F)							
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
(%	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
Humidity (%)	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
idit	60	82	84	88	91	95	100	105	110	116	123	129	137				
E	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
ve	75	84	88	92	97	103	109	116	124	132							
Relative	80	84	89	94	100	106	113	121	129								
Re	85	85	90	96	102	110	117	126	135							-	
-	90	86	91	98	105	113	122	131								no	RR
	95	86	93	100	108	117	127										- )
	100	87	95	103	112	121	132										
			Like	lihood	l of He	at Dis	order	s with	Proloi	nged E	xposi	ire or	Strenu	ious A	ctivity	,	
			autic	n		Ex	treme	Cautio	n		[	Danger		Ð	ktreme	Dange	er

Chart 3: Cold Wind Chill and Frostbite Risk

5

									Tem	pera	ture	(°F)							
	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
1	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98
					Frostb	ite Ti	nes	30	minut	es	10	minut	es [	Sm	inutes				

REATHER

## **Community Resources**

## Utility, Energy Bill Assistance

- <u>The Salvation Army of Chatham County Emergency Assistance</u>
  - Financial Assistance: Utility, Rental Bills for low-income households
- Duke Energy "Share The Light" Fund
  - Financial Assistance: Heating, Cooling Bills for low-income households
- Low Income Energy Assistance Program (LIEAP)
  - $\circ~$  Financial Assistance: Heating bills for low-income households.

## **Home Repair Services**

- Central Piedmont Community Action Weatherization Assistance
  - Services to low-income households for lowering energy costs, HVAC, insulation, energy conservation measures.
- <u>Rebuilding Together of the Triangle Home Repair Services</u>
  - Services to low-income households for HVAC, window replacement, insulation, sealing, ventilation, replacing outlets/wiring.

## Shade Structures, Tree Planting

- American Academy of Dermatology Shade Structure Program
  - Grants to schools, daycares, parks, non-profits for installing permanent shade structures where children learn and play.
- North Carolina Forest Development Program (FDP)
  - Assists private landowners with reforesting (replanting lot with trees) via reimbursement of a percentage (usually 40%) of the per-acre cost.
- Federal Programs for Forest Landowner Assistance
  - Cost-share programs paying percentage of tree planting cost. For further inquiries, contact your local Natural Resources Conservation Service (NRCS) office. There are <u>two NRCS offices</u> in Chatham County.
    - Related programs include:
      - Environmental Quality Program (EQIP)
      - Conservation Reserve Program (CRP)
      - Wildlife Habitat Improvement Program (WHIP)
      - Wetlands Reserve Program (WRP)
- The Legacy Tree Fund North Carolina Urban Forest Council
  - Grants to civic associations, block clubs, garden clubs, and other nonprofits for tree-planting projects in both urban and rural communities.