
Heat Action Community Engagement Survey



Charlotte, NC | June 2026

Charlotte Heat Mappers/UNC Charlotte
City of Charlotte Office of Sustainability and Resilience
Charlotte Mecklenburg Emergency Management Office
Mecklenburg County Public Health



June 2026

Charlotte/Mecklenburg Team | Spring 2025 Planning for Extreme Heat Cohort

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Report prepared by Katherine Idziorek



Supporting heat action

Extreme heat is the #1 weather-related killer in the U.S. Exacerbated by climate change, extreme heat inequitably impacts our most vulnerable populations, including younger and older individuals, houseless individuals, outdoor workers, and those with pre-existing medical conditions. Historic patterns of racially and socially unjust policies such as redlining and urban renewal have resulted in disinvestment in low-income communities and communities of color, meaning these neighborhoods are often hotter than other areas, with fewer parks and less tree canopy cover. Cities nationwide, including Charlotte, recognize that action is needed to address the inequitable impacts of extreme heat.

This report shares the results of the **2025 Heat Action Survey** conducted in Charlotte and Mecklenburg County. Survey respondents shared stories about the ways in which extreme heat impacts their daily lives and identified priority heat mitigation strategies for their communities. The survey was developed by members of the 2025 Planning for Extreme Heat Cohort, a partnership among the City of Charlotte, Mecklenburg County, and UNC Charlotte as public outreach to inform the eventual development of a Heat Action Plan for the Charlotte/Mecklenburg region.

Conducted from August-September 2025, the survey received 401 responses. Although the survey findings are not necessarily representative of the overall Charlotte/Mecklenburg population, the responses shared illustrate current issues and concerns related to extreme heat in our area.

We hope the survey results will be used by decisionmakers, local leaders, researchers, and community members to support heat mitigation planning and heat action across our communities.

*-- 2025 Charlotte/Mecklenburg
Planning for Extreme Heat Cohort*



The graphic features a map of Charlotte at the top and bottom. The central text reads: **SUPPORT HEAT ACTION!** IF YOU LIVE, WORK, OR SPEND TIME IN MECKLENBURG COUNTY, YOUR INPUT IS NEEDED! Below this is a QR code. Further text states: **Mecklenburg County, the City of Charlotte, and the Charlotte Heat Mappers want to learn from your experiences with extreme heat.** Your participation in this 5-minute survey will shape a county-wide Heat Action Plan to help protect you, your family, and your community from the dangers of extreme heat. You can also access the survey at <https://bit.ly/heatactionsurvey>. To learn more, contact: heatmappers@charlotte.edu. A small logo for 'Charlotte Heat Mappers' is also present.

Recruitment graphic for the Heat Action Survey

Thank you to our community partners who helped distribute the survey!

Action NC
CharlotteEast
CleanAIRE NC
TreesCharlotte
Mecklenburg County
Housing Innovation &
Stabilization
Services
Charlotte Jewish
News
49er Urban Planning
Club
City of Charlotte
Office of
Sustainability &
Resilience

North Carolina Public
Health Collaboration
Schiele Museum of
Natural History
Catawba Riverkeeper
CrossRoads
Corporation
Charlotte
Mecklenburg
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Sustain Charlotte
Mecklenburg County
Patagonia Charlotte
UNC Charlotte Urban
Institute

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Heat Action Survey background: Spring 2025 Extreme Heat Cohort

In the Spring of 2025, a team comprising the City of Charlotte’s Office of Sustainability and Resilience, the Charlotte Mecklenburg Emergency Management Office, Mecklenburg County Public Health, and the Charlotte Heat Mappers participated in the inaugural Planning for Extreme Heat Cohort Program facilitated by the North Carolina State Resilience Office.

The Planning for Extreme Heat Cohort Program supports local leaders in developing plans to address extreme heat, including monitoring local conditions, identifying at-risk populations, and understanding how to mitigate heat-related risks to public health and wellbeing and is offered annually for free. Program participants from across North Carolina work toward developing a Heat Action Plan for their respective jurisdictions while learning from one another’s experiences.

As part of this program and as a critical step toward heat action, the Charlotte/ Mecklenburg team developed the Heat Action Survey that is the subject of this report as a means of gauging heat impacts and desired mitigation measures for people who live, work, and play in Charlotte and Mecklenburg County. Although our jurisdictions do not yet have a Heat Action Plan, gathering this information from the public represents a meaningful step in this process and lays the groundwork for future heat action.

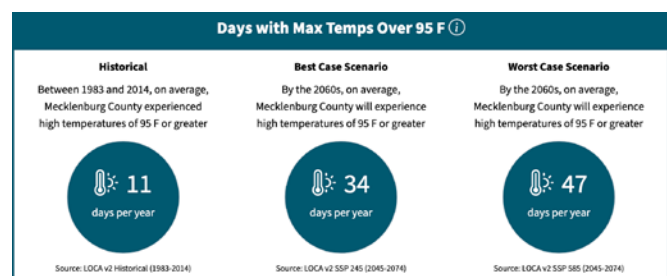
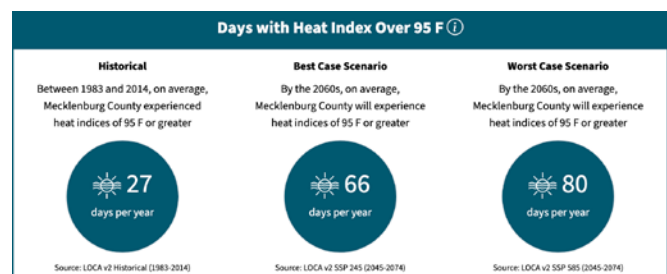
Learn more about the Extreme Heat Cohort Program and access the Heat Action Plan Toolkit at:

<https://www.deq.nc.gov/energy-climate/state-resilience-office/resilience-resources-local-communities/heat-action-plan-toolkit>

Extreme heat projections for Charlotte/Mecklenburg County

The North Carolina Department of Environmental Quality within the State Resilience Office provides climate projection data on the NC Resilience Exchange, a repository of resilience resources intended for use by local and state leaders, researchers, educators, and the general public. Climate projections for Charlotte and Mecklenburg County are shown below. By the 2060s, our area is expected to experience 66 - 80 more days with a heat index (temperature and humidity combined) over 95°F and 34 - 47 more days with temperatures over 95°F than the historical baseline (1983-2014).

Because exposure to extreme heat can have serious health consequences for many people, planning to mitigate these impacts is critical. See p. 13 of this report for a list of local, regional, and national-level resources related to planning for extreme heat.



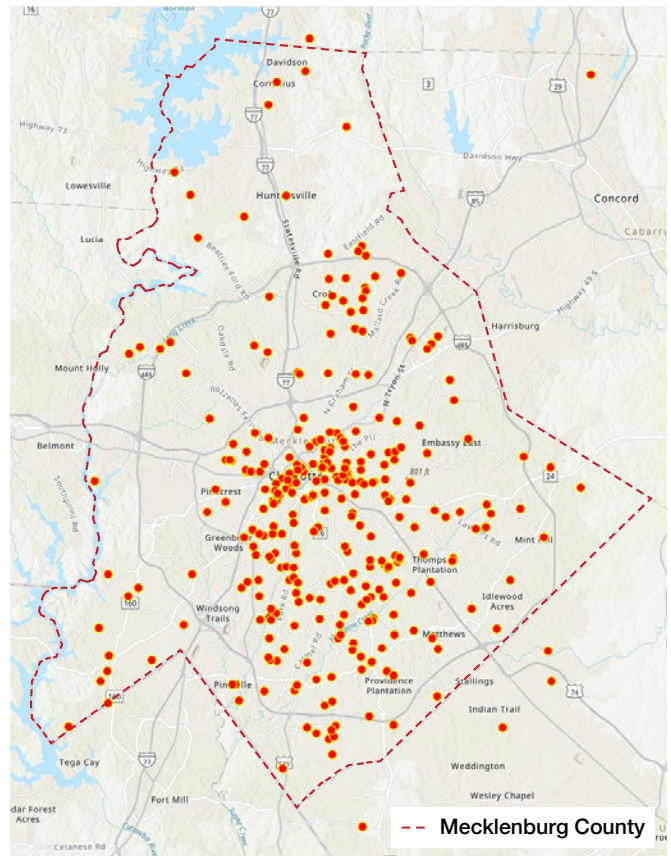
Extreme heat projections for Charlotte/Mecklenburg County (NC Resilience Exchange; accessed 05/2026). Learn more at the NC Resilience Exchange: <https://www.resilienceexchange.nc.gov/>

Survey respondent locations

In which area of Mecklenburg County do you live?

If you don't live in Mecklenburg County, in which area do you work or spend most of your time?

Survey participants came from across Mecklenburg County, with higher concentrations of respondents near the center of Charlotte and in the southeast part of the County (see map to the right). Of the 401 survey respondents, 330 (82.3%) provided their location information.

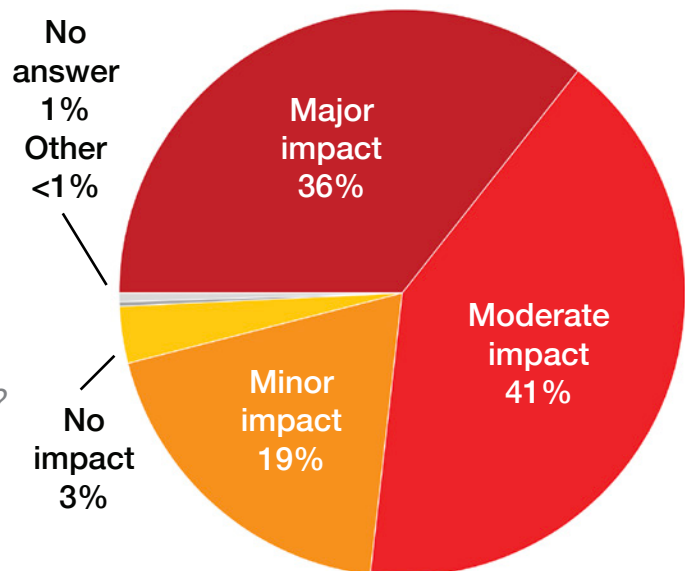


Heat impacts on daily life (% respondents)

How much of an impact would you say extreme heat has on your day-to-day life during the summer months?

For example, does it affect your ability to get to work, or to perform your work? Do you cancel or decide not to travel to appointments or make other important trips when temperatures are hot? Does the heat impact your ability to exercise? Do you experience symptoms of heat-related illness?

More than 75% of respondents indicated that extreme heat has either a “major” or “moderate” impact on their day-to-day life during the summer months. See pp. 8-12 for a summary of impacts shared by respondents.



Mitigating urban heat

There are many things cities, counties, emergency managers, and public health agencies can do to help mitigate urban heat. We asked survey respondents to prioritize the potential mitigation actions described here.



Trees on public land. More tree shade in public spaces, such as parks or along streets in the public right of way.



Protections for outdoor workers. Increased support for outdoor workers and others spending time outdoors in the heat.



Cool surfaces. Increased use of cooler materials (that absorb and store less of the sun's heat) for roadways and rooftops.



Home cooling assistance. Support for cooling expenses and home weatherization, especially for low-income residents.



Trees on private land. More support for tree planting on private property.



Access to cool green spaces. Improved access to parks, greenways, and other green spaces.



Access to public air conditioning. Publicly accessible air-conditioned spaces.



Access to water. Improved access to pools and/or spraygrounds.



Community check-in programs. Neighborhood-based check-in programs to help vulnerable neighbors during heat waves.



Public warning systems. Extreme heat alerts received via text or email.



Educational materials. Educational materials focused on how to prepare for extreme heat and prevent associated illnesses.



Youth engagement. Youth learning and volunteer opportunities related to urban heat.

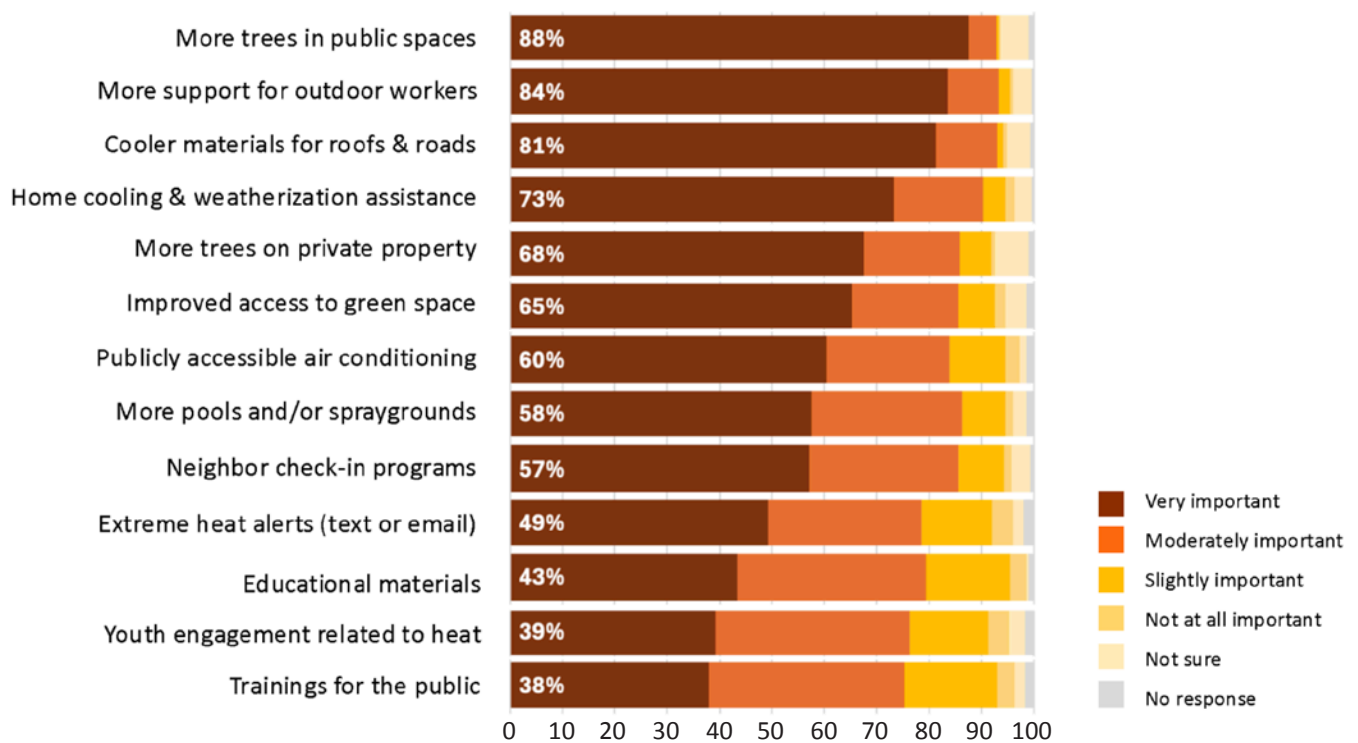


Heat preparedness trainings. Trainings for the public focused on how to prepare for extreme heat and prevent associated illnesses.

Priority heat actions

Extreme heat response and mitigation can be accomplished in a variety of ways. Which of the strategies below do you think are most important for reducing the impacts of urban heat where you live?

Please indicate how important you think each action is for addressing the effects of heat in your community.



When asked what kinds of heat mitigation actions might be most impactful in their communities, survey respondents voiced a preference for a wide range of strategies. More than 75% of respondents indicated that all proposed actions were either “very important” or “moderately important” for reducing the impacts of urban heat where they live.

The three potential mitigation actions that received the broadest support, with more than 80% of respondents indicating they were “very important,” were:

- 1) Adding trees to public spaces (88%)
- 2) Increased support for outdoor workers (84%)
- 3) Using “cool” materials on roofs and roads

Experiences with extreme heat: Participant stories

This section of the report summarizes key themes that arose across all responses, including impacts on individuals' ability to work productively, exercise and spend time outdoors, and engage in daily activities as well as significant impacts on personal health and finances. Selected excerpts from respondent quotes illustrate specific ways in which extreme heat affects individuals relevant to these five themes. These quotes represent just a small fraction of the 400+ stories we received about the impacts of extreme heat on respondents' daily lives.

While many of us may be privileged and fortunate enough to have an air-conditioned home and personal vehicle, to not be experiencing complicating medical conditions, and/or to have the ability to adapt to the heat while at home, working, or doing other activities, this is not the case for all people who live, work, and play in Charlotte and Mecklenburg County. The quotes shared in the following pages represent a range of perspectives, identities, and experiences and illustrate the inequitable impacts of extreme heat across our communities.

Extreme heat costs people money

Respondents shared stories about the impact of higher temperatures on their utility costs. Many noted that the increased use of power and/or water created a financial burden during times of extreme heat:

"...[it] costs about **twice the average energy cost** to cool my home during the hottest days."

"...during extreme heat **we have to water our lawn more which is wasteful and expensive.**"

"**The heat...raises my electric bill** due to using air conditioning more frequently. **This affects my financial health.**"

"**During weeks of no rain, I struggle to afford the water bill.**"

"I do **struggle with high heat and the high AC bills in the summer.**"

"**Utility bills are way higher.**"

Beyond the physical, mental, and emotional challenges of the heat...**the financial challenge also has a major impact on my business & livelihood.**"

"**I can't afford a gym membership and AC is expensive**, so working out indoors is also not a great option."

"**The heat** keeps me inside in AC, which **runs up the power bill...highest that it has ever been last month!!**

Extreme heat impacts people's ability to work

Heat also has other kinds of costs. Many respondents, particularly those who work outdoors, discussed the impacts of extreme heat on their health and productivity:

“Part of my team’s job is done outside. We are very affected by the extreme heat.”

“...can’t get my usual work done-fatigue after exposure makes me feel ill.”

“As a gardener who grows a lot of my own food (because of poverty), it is extremely difficult to manage my household crops in the summer months.”

“Doing heavy lifting service work outdoors means starting and ending early.”

“I am a firefighter. Imagine having to wear 35lb. turnout gear, then an air tank on your back while outside. Need I explain more?”

“I work part-time in an outdoor produce market. Sometimes I melt out there.”

“Being a delivery driver in Mecklenburg County I go in and out of buildings in the heat. So I am in and out of the AC and hot constantly. I have had to increase my water intake and add drinks with electrolytes to my meals, as I have learned that I am dehydrated from my job.”

“I am a horticulturist and work outdoors ...extreme heat endangers our crew and is a serious detriment to our productivity.”

“I work outside alot and the heat will affect when we complete work. We try to get things done early in the morning to avoid the dangers of extreme heat. I often end up soaking in sweat and have to make sure I stay on top of my hydration to become ill from the heat.”

“My employees who work outside also need to take more care, start their days earlier etc.”

“I live in a shelter and work outside during the day to make enough to get personal items that I need to live on. When I am out there it’s very little water around or it a rural area with little shade.”

“Work outdoors. Relief is difficult.”

“The extreme heat also impacts the schedule and cancellations of work related activities.”

“I work outside a lot and it causes me to either postpone work, or expend a lot of time and energy ensuring that I’m being healthy while working in the heat.”

“Lead a group of outdoor workers. It is incredibly hard to ensure that they are not overdoing it during times of extreme heat.”

“On extremely hot days the ability to work (I am an outdoor worker) is severely hampered by heat.”

“With no ac at work its extremely difficult to perform my job safely.”

Extreme heat impacts people's physical and mental health

The health impacts of extreme heat - both physical and mental - were evident in the survey responses. Many shared stories about becoming ill from the heat or needing to avoid the outdoors for medical reasons:

“Currently **as a pregnant woman in my third trimester, I restrict my time outside** and have experienced **severe cramping** on days when I do have to spend a lot of time in the heat...”

“**Heat makes me feel suffocated.** It causes my **migraines** to worsen.”

“**I am currently pregnant,** so the extreme heat has had a much more dramatic and negative impact on my day-to-day life. I enjoy walking...and recently the **extreme heat has prevented me from doing this** as frequently as I would like...I **lose the benefits of sunshine and fresh air,** which **detrimentally affects my performance at work and does not benefit the development of my baby...**”

“...I also don't like walking around the neighborhood during the summer because it can trigger migraines even if I've drank plenty of water and ate well beforehand.”

“**The heat hurts my body. I am disabled and have heat regulation issues so I can only be outside for short times.** The sun feels so good and I need the **Vitamin D for my physical and mental health,** but I **cannot go out in summer** except the early morning or evening.”

“**I am heat sensitive (due to meds) so I won't do any activity outside in extreme heat.**”

“**...having Asthma, the heat affects my health and I stay in on extremely hot days.**”

“**I have fibromyalgia.** Extreme temperature changes and too much sun exposure can result in a **flare-up of my symptoms.** I monitor my sun exposure every day, and **I plan my day around the heat.**”

“Despite my efforts to remain hydrated I **have experienced four heat exhaustion spells** and actually **gone unconscious briefly** in the past 20 years.”

“The heat plus humidity can impact **my asthma,** creating an **increased need for using my inhaler.**”

“...on extremely hot days I try not to go outside and **feel lethargic because of the heat.** I am 78 and have felt adverse reactions to heat as I have aged.”

“**Extreme heat means more asthma, migraine, and POTS symptoms for me.**”

“**I get migraines and when I am out in the summer heat it can easily trigger one.**”

“**I experience heat rash symptoms at times that have been painful and generally keep me indoors as much as possible during the summer.**”

Extreme heat impacts daily activities

Respondents also shared their experiences in attempting to carry out daily activities during times of extreme heat. Many refrain from participating in outdoor activities or cancel appointments due to hot weather:

“Heat also impacts my social life and the errands I have to run, because **if it’s too hot, I will often cancel on people** or not run errands until the evening, in order to avoid the heat.”

“**I am also less likely to go to local businesses when it is very hot...**”

“**We no longer participate in parties or festivals** in the hot months. **Our social life suffers.**”

“**I cancel any errands or planned activities** I have for the day during extreme heat.”

“**Heat really stops me from going out in the summertime and doing things that I enjoy...**”

“The heat impacts my ability to leave the house. **I have an infant that is sensitive to heat, so we are limited on what we can do** when temperatures outside are high.”

“**Because of my age (84) I have cancelled appointments and all outside activities on extreme heat days.**”

“**I don’t want to walk too far with my child** as I worry they will overheat.”

“**On extreme heat days we avoid outdoor play, walking/biking to local errands/work, needed yard chores, and miss socializing with our neighbors and community.**”

“**Heat has affected my preferred means of transportation (cycling) and my ability to exercise outdoors.**”

“**Makes commuting much harder as I use public transit plus a bicycle to commute to and from work and other activities.**”

“**We have started to adopt the phrase ‘Southern winter’ for the summer months because it is so hot that we simply cannot go outside** (similar to how you stay inside during the winter months in the North). **Our little ones are cooped up indoors.**”

“**I limit the time my grandkids are outside with the heat. I have difficulty going for a hike or a walk with the heat/often feel ill.**”

“**With the extreme heat we do not get out and enjoy what Mecklenburg country has to offer.**”

“**Due to the heat, I cannot take my kids out from 9 am - 6 pm. The kids are missing out outdoor playtime.**”

“**Summer 2025 weather has forced me to stay inside! I have an infant who is still developing the ability to regulate his body temperature, so it’s not safe for him to be outside much.**”

Extreme heat impacts exercise and time spent outdoors

Another impact of extreme heat is that it limits the time people can spend outdoors, exercising and/or enjoying nature. Many shared difficulties in getting outside to do enjoyable activities, describing the negative mental health impacts that can result:

“I won’t go to outdoor events like baseball or soccer games.”

“I do not exercise outside. I stay in the house as much as possible.”

“I can’t exercise alone outside anymore, because the heat makes me feel like I’m going to pass out.”

“On very hot days, I am less likely to exercise, since I do not want to do it outdoors. My gym is also not air-conditioned.”

“I can’t bike to work, and just hate the intense heat. This is a big impact for me to get so much less time outside because it is critical to my **mental health.**”

“Heat is an extreme deterrent for outdoor exercise for me, especially as someone who is heat-sensitive and has **suffered from heat exhaustion in the past.**”

“Heat affects my ability to enjoy the outdoors with my family.”

“I have not been hiking or kayaking for weeks because the heat is so uncomfortable.”

“Extreme heat will cause me to avoid exercising or leaving the house.”

“I don’t run or walk outside bc it is too hot. Not pleasant to go to parks that don’t have lots of tree coverage bc of heat.”

“...it does keep me in my house. I love the outdoors but it’s too damn hot to step outside.”

“I am 70 years old and skip most outdoor activities (gardening, exercise, etc.) when heat is intense.”

“I can’t exercise or do yard work outside. I avoid any outdoor events.”

“I am easily susceptible to heat strain so I can’t spend much time outdoors when it is above 90*. **I cannot exercise** outdoors during the summer and fall.”

“The heat has severely impacted my ability to exercise since I prefer to walk outside. I am very **sensitive to heat and feel dizzy or weak** at times when I am outside.”

“Less time outdoors because of increased fatigue.”

“Keeps me indoors in a/c forgoing outside chores. I’m 80 with cancer.”

“It was too hot to go to many playgrounds...PLEASE stop making the slides at the playgrounds made of metal, they are too hot to use.”

Extreme heat data and resources

Heat.gov

A federal website focused on extreme heat science, funding programs, and educational materials.

<https://heat.gov/>

North Carolina Department of Health and Human Services Heat Health Data and Reports

Access current and future projected impacts of heat in North Carolina by county.

<https://www.dph.ncdhhs.gov/programs/epidemiology/occupational-and-environmental-epidemiology/climate-and-your-health/extreme-heat/nc-heat-health-data-and-reports>

North Carolina Heat Health Alert System

Get heat alerts via email when dangerous heat is predicted for your area.

<https://survey.dph.ncdhhs.gov/surveys/?s=J3M84LKNAPN838AA> (English)

<http://dph.ncdhhs.gov/sistema-de-alertas-de-salud-por-el-calor-de-carolina-del-norte> (Spanish)

Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan

Countywide hazard mitigation plan that includes an Extreme Heat Risk Assessment.

<https://www.charlottenc.gov/files/sharedassets/city/v/1/public-safety/em/documents/2020-mecklenburg-county-mjhmp-final.pdf>

Official Cooling Center locations - Mecklenburg County

Designated cooling stations include Park and Recreation centers, senior centers, and spraygrounds.

<https://news.mecknc.gov/keeping-cool-facilities-and-resources-available-mecklenburg-county-residents>

City of Charlotte Strategic Energy Action Plan (SEAP+)

A roadmap for reaching the city's climate and energy goals, including a Climate Risk Assessment.

<https://www.charlottenc.gov/City-Government/Initiatives-and-Involvement/The-Office-of-Sustainability-and-Resilience/SEAP>

Charlotte HeatWatch Reports (English/Spanish) & GIS data

Reports detailing the findings of Charlotte's 2024 HeatWatch campaign and downloadable GIS data.

<https://osf.io/86ume/overview>

Charlotte Heat Mappers StoryMap

An interactive map of the HeatWatch data and the story of the community science campaign.

<https://bit.ly/charlotteheatstorymap>

CleanAIRE NC Heat Mitigation Report

A blueprint for a coordinated immediate and long-term response to the extreme heat crisis.

<https://cleanairenc.org/wp-content/uploads/2025/10/HeatMitigationRpt100325.pdf>

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