

# June 2021 Extreme Heat Event

Preliminary Findings  
and Action Steps



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# Executive Summary

## A weather emergency in a pandemic

The “heat dome” that arrived in Multnomah County on June 25, 2021, settled over a community still in a state of emergency from the COVID-19 pandemic. Fifteen months of shuttered schools, institutions and businesses had strained the safety net, increasing social isolation and the risk of experiencing homelessness. Though many people have become more vulnerable than ever because of the disruptions of the pandemic, not everyone has been impacted equally — a result of inequities created by systemic/structural racism, intergenerational poverty, income inequality and federal disinvestment in social services.

Multnomah County has long tracked and recognized that the region’s summers are growing hotter and drier due to climate change, and recognized the impact that these stressors would have on vulnerable communities. We use that information to inform our planning and policy efforts. But the shocking temperature swing that began June 25 arrived years earlier than expected, a crisis within multiple crises. And like many of the preceding emergencies, the impact was most immediately felt by those least able to flee or to cope.

## Record temperatures

Between June 25 and June 30, 2021, the County recorded temperatures during three consecutive days of 108, 112 and 116 degrees, shattering previous records. Temperatures remained high overnight during this period, providing little relief. Warm overnight temperatures over consecutive days — when homes and apartments without air conditioning do not cool down at night — are a primary driver of heat-related illness, hospital visits and deaths during extreme heat events.<sup>1</sup>

Multnomah County swiftly developed a three-pronged strategy for the approaching heat: provide space where people could cool off; undertake extensive in-person outreach to seniors, people with disabilities and people experiencing homelessness; and communicate the risk that extreme heat posed to everyone in the community.

Coordinating with nearly 100 agency and organizational partners, the County:

- Launched three Cooling Shelters, serving a total of 1,400 overnight guests and providing 6,330 meals.
- Opened nine libraries as Cooling Spaces.
- Coordinated the work of nearly 100 outreach teams, mutual aid groups and community volunteers, who collectively distributed 14,000 cooling towels, 32,000 electrolyte packets, 8,000 containers of sunscreen, 4,500 hygiene kits, 67,000 water bottles and several hundred box fans to community members.
- Created and posted 27 graphics on warnings, heat stroke, and at-risk populations like kids, seniors and outdoor workers.
- Translated 12 graphics into languages other than English.
- Conducted outreach to at-risk County clients, including pregnant clients and clients with infants (reaching 12,000 people via text in multiple languages), as well as high-risk older adults and people with disabilities, reaching 3,850 people living in their own homes and 630 people living in adult care homes.

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<sup>1</sup> Preliminary Review on Excessive Heat Deaths in Multnomah County June 2021:

<https://www.multco.us/preliminary-review-excessive-heat-deaths-multnomah-county-june-2021>

The extreme heat led to both an unprecedented response by the County and an unprecedented loss of life. Despite the largest sheltering and outreach operation for a heat event in our history, the Multnomah County Medical Examiner's initial data, as of Aug. 3, 2021, indicated that 62 people succumbed to hyperthermia. The majority of those who died were older, white and living alone in apartment buildings.<sup>2</sup>

## A new threat

Although extreme heat is one of the leading causes of weather-related deaths in the United States — in some years killing more people than all other weather hazards (except hurricanes) *combined*<sup>3</sup> — the severity of these conditions and their impacts is new for Multnomah County.

Extreme heat has not been a seasonal hazard that the County has traditionally had to plan for, because extreme heat had not been a threat. Prior to June 2021, Multnomah County recorded only two hyperthermia deaths since 2010 — one each in 2016 and 2018. More people died from the June 2021 heat wave in Multnomah County than died from heat in the entire state of Oregon in the past 20 years.

The June 2021 heat event is notable for many reasons that may have led to this event resulting in so many fatalities. Those factors include:

- The event was extreme and unprecedented in the Pacific Northwest. A preliminary climate attribution study made a direct link between the heat event and climate change, and noted that the heat event was a once-in-a-1,000-year event.
- People lacked the necessary experience with extreme heat to protect themselves. Because people may not have experienced such temperatures before, people may not have understood the severity of the threat and therefore may not have made behavior changes to adapt to the temperatures (e.g., close blinds, use air conditioning, seek out spaces with air conditioning).
- Because the event occurred early in the summer, people had not yet acclimated to hotter temperatures. Although heat is deadly, the human body can acclimate to hotter temperatures, up to a point, over time. Heat events that occur earlier in the summer tend to be more deadly.
- The pandemic limited the effectiveness of cooling interventions, since some people were reluctant to be indoors with others.

## Steps the County has taken

Since the June heat wave, the County has taken a variety of steps to enhance our response to future extreme heat events, implementing changes during two subsequent heat waves in July and August. These actions include:

1. Updating our protocols to allow for earlier coordination and planning in the case of catastrophic heat, including activating Cooling Shelters at the first hint of extreme heat.
2. Activating the public alert system to make calls to the community in English and Spanish.
3. Working with 211info to create an emergency response standard that includes specific deliverables around operations response and communication needs.

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<sup>2</sup> Preliminary Review on Excessive Heat Deaths in Multnomah County June 2021:

<https://www.multco.us/preliminary-review-excessive-heat-deaths-multnomah-county-june-2021>

<sup>3</sup> National Oceanic and Atmospheric Administration, Billion-Dollar Weather and Climate Disasters: Summary Stats: <https://www.ncdc.noaa.gov/billions/summary-stats> & Center for Climate and Energy Solutions, Heat Waves and Climate Change: <https://www.c2es.org/content/heat-waves-and-climate-change/>

4. Launching an effort to increase the number and geographic diversity of cooling interventions by engaging a range of community partners — including nonprofit, culturally specific and government organizations — and hosting webinars, providing technical assistance and coaching, and sharing data and best practices.
5. Initiating a countywide communication structure to formalize our coordination with partner organizations and more effectively reach the public with messaging about heat risks and resources available to stay cool.
6. Providing training and coaching for cooling shelter management to encourage new leaders to step into critical roles and to support existing leaders in developing their skills.

Our hearts go out to everyone in our community who lost a loved one to the extreme heat in June. We are committed to doing all we can to keep people safe in future heat crises. The County will continue to improve our emergency response during extreme heat and take action to mitigate and prepare for the impacts of the climate crisis.

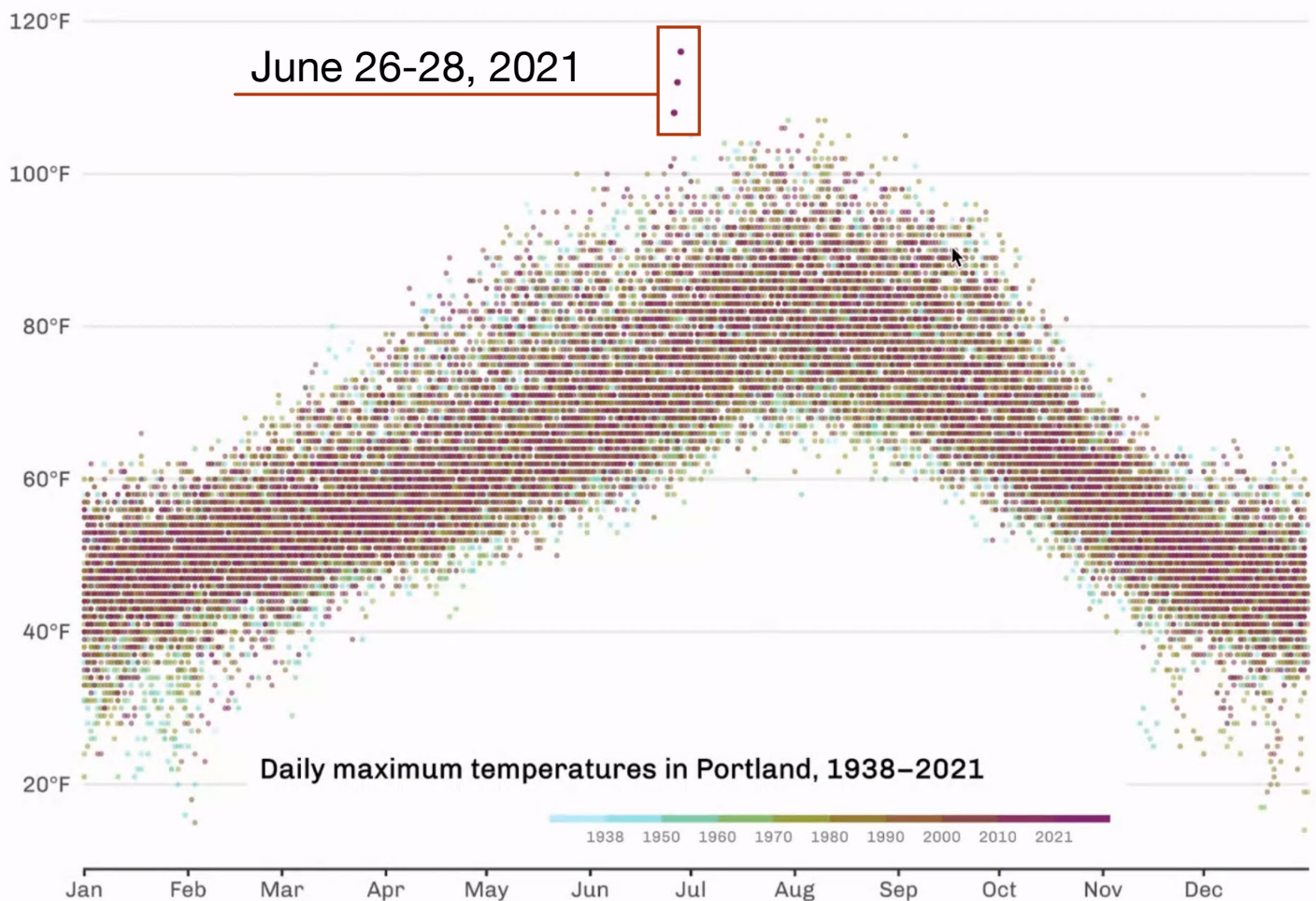
To learn more about what you can do to stay cool and support others to do the same, visit our “Help for When it’s Hot” webpage.



# A Crisis within Multiple Crises

Prior to June 2021, the highest temperature ever recorded in usually temperate Multnomah County was 107 degrees Fahrenheit, which happened in 1965 and again in 1981. Between June 25 and June 30, 2021, the County recorded temperatures during three consecutive days of 108, 112, and 116 degrees, shattering the previous record high. Temperatures remained high overnight during this period, providing little relief. Warm overnight temperatures over consecutive days — when homes and apartments without air conditioning do not cool down at night — are a primary driver of heat-related illness, hospital visits and deaths during extreme heat events.<sup>4</sup>

The extreme heat led to both an unprecedented response by the County and an unprecedented loss of life. Despite the largest sheltering operation for a heat event in our history, the Multnomah County Medical Examiner’s initial data, as of Aug. 3, 2021, indicated that 62 people succumbed to hyperthermia. The majority of those who died were older, white and living alone in apartment buildings.<sup>5</sup>



Data: National Oceanic and Atmospheric Administration via Oregon Live • Graphic: Cédric Scherer

4 Preliminary Review on Excessive Heat Deaths in Multnomah County June 2021: <https://www.multco.us/preliminary-review-excessive-heat-deaths-multnomah-county-june-2021>

5 Preliminary Review on Excessive Heat Deaths in Multnomah County June 2021: <https://www.multco.us/preliminary-review-excessive-heat-deaths-multnomah-county-june-2021> As of August 2021, 80 people are suspected of having died of hyperthermia during the heatwave; 62 of those cases have been confirmed.

This retrospective is intended to provide a basic timeline of events and interventions initiated by Multnomah County, as well as to identify early lessons learned to better prepare for future heat waves. After every large emergency response, Multnomah County conducts an evaluation process engaging all involved County staff and partners to produce an After-Action Report with corresponding action items as part of an improvement plan. While an in-depth After-Action Report on the heat event is in development and will be available by the end of the year, the initial findings presented here come from survey results and a root cause analysis of several key themes identified by those who participated in the County's response to the June 2021 heat event. The accelerated timeline of this report is meant to help inform any extreme heat response that might be necessary before the full After-Action Report is completed.

The loss of life in those five days was, and remains, devastating. This report is dedicated to those who died and the family and friends who mourn them.



## Definitions

### Heat Dome

vast areas of sweltering heat that gets trapped under a high-pressure “dome.”

### Hyperthermia

the condition of having a body temperature greatly above normal that can be caused by exposure to heat.

### Cooling Center

a type of Disaster Resource Center with air conditioning, cooling resources, water, food, and support services. These locations operate during the hottest part of the day only.

### Cooling Shelter

a type of Disaster Resource Center with air conditioning, cooling resources, water, food, and support services. These locations are similar to Cooling Centers, but operate for 24-hours.

### Cooling Space

an air-conditioned space open to the public with water often available. These spaces are open during the hottest part of the day only and do not operate for 24 hours. Community partners, such as houses of worship, may operate Cooling Spaces.

### Cooling Resources

items like water, cooling towels, electrolytes, misters and fans, and supports such as transportation to Cooling Shelters and Centers to help someone get cool or stay cool.

## A Heat Emergency Unfolds

Until recently, Cooling Centers in Multnomah County were essentially extended hours at senior centers, and were not advertised as being for the general public. Beginning in 2018, prompted in part by the County-adopted 2015 Climate Action Plan, we proactively developed standard operating procedures for identifying weather forecasts of concern and convening partners to inform a response. On May 28, 2021 — the first day temperatures hit 90 degrees this year — the County updated its “Help for When it’s Hot” webpage and revisited its heat protocols. Those plans provided the blueprint for what unfolded leading up to and during the extreme heat event.

Early reports for the possibility of extreme heat began the weekend of June 19. On Monday, June 21, the National Weather Service released its first weather briefing and forecast, indicating:

- 90% chance of 90+ degree temperatures from Friday through Sunday
- 50 to 60% chance of temperatures reaching 100 or more on Saturday
- 20 to 30% chance of temperatures reaching 105 or more on Saturday

On June 23, the County held its first heat coordination call at 9 a.m., inviting 144 participants from County departments and partner organizations, including regional cities and unincorporated areas, fire districts, utilities, TriMet, Metro, and the National Weather Service. The County routinely convenes such calls during snow, ice, wildfire and smoke incidents to coordinate with other responding agencies and inform its own actions. During heat events, coordination calls are convened by the Multnomah County Office of Emergency Management as part of our extreme heat standard operating procedures.

The County coordinated with nearly 100 organizational partners during June’s heat event, including the City of Portland, the American Red Cross, 211info, and Portland Fire and Rescue (See [Appendix A](#) for the full list of organizations engaged in coordination efforts and [Appendix B](#) for organizations that assisted with distribution of cooling resources).

During the initial coordination call, as the National Weather Service forecast became more certain, the County developed a three-pronged strategy for the approaching heat: provide space where people could cool off; undertake extensive in-person outreach to seniors, people with disabilities and people experiencing homelessness; and communicate the risk that extreme heat posed to everyone in the community.



The County opened three Cooling Shelters based on our Disaster Resource Center (DRC) framework<sup>6</sup> and in accordance with the County's COVID-19 Guidance for Shelter Settings.<sup>7</sup> Locations were selected to create access in different parts of Multnomah County and included the Oregon Convention Center near downtown Portland, the Arbor Lodge Shelter in North Portland, and the Sunrise Center in the Rockwood neighborhood in east Multnomah County. The Cooling Shelter at the Sunrise Center was led and staffed by Cultivate Initiatives.

With evening temperatures remaining too warm for people to cool down, for the first time in County history, these Cooling Shelters were scheduled to stay open 24 hours throughout the heat event. The County also committed to a low-barrier, no-turn-away policy, meaning we would continue to expand, or open additional locations, to ensure everyone who arrived could access life-saving assistance.

The Communications Office updated the "Help for When it's Hot" webpage, issued a media release on the potential for life-threatening heat, and began posting stories and social media and conducting media interviews. We also updated the County's [Stay Cool! Interactive](#) Map of Cooling Shelters and Cooling Spaces.

On June 24, the National Weather Service released a Heat Risk and Temperature Outlook with forecasts significantly warmer than the June 21 weather briefing. The report highlighted "unprecedented heat Saturday through Monday," predicting a high of 109 degrees on Sunday.

The County convened daily coordination calls throughout the event. These calls focused on preparedness and mitigation strategies, including calling for the cancellation of large-venue outdoor activities and canceling outdoor work performed by County staff. These calls also addressed staffing needs at Cooling Shelters and coordinated support for outreach activities. As the event entered the weekend, coordination calls began supporting operations as each new forecast showed an increase in the expected temperatures.

The County also established libraries as Cooling Spaces, extending hours at five locations initially and then opening four additional locations that had been closed due to the pandemic. Each library Cooling Space provided free bottled water, as well refuge from the daytime heat.

In addition to opening Cooling Shelters and Cooling Spaces, Multnomah County Environmental Health worked with partners to call property managers of apartments and single-room-occupancy buildings with vulnerable residents (many without air conditioning) who had been identified by an area nonprofit agency that focuses on social isolation. We advised property managers to open community rooms and lobbies for cooling, share information about Cooling Shelters And Spaces, and post our flyers about signs and symptoms of heat illness. In some cases, our partners took this information door to door and performed wellness checks.

Even before the first countywide heat call, the Joint Office of Homeless Services had begun coordinating street outreach to individuals experiencing homelessness through a network of 27 mutual aid groups and individuals, and 69 contracted and community-based nonprofit organizations. Together, relying on the Joint Office's detailed maps and known locations and camps, they distributed water and cooling kits to people living outside throughout the heat event. The Joint Office also worked with its network of approximately 40 community-based organizations to encourage and support outreach with clients in housing to help ensure their safety during the heat event.

Additionally, the Department of County Human Services had also begun focused outreach to high-risk older adults and people with disabilities — reaching 3,850 people living in their own homes and

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6 Multnomah County Disaster Resource Centers: <https://www.multco.us/dchs/disaster-resource-centers>

7 Multnomah County COVID-19 Guidance for Shelter Settings: <https://www.multco.us/dchs/disaster-resource-centers>

630 people living in adult care homes. Outreach was conducted over the phone, with referral to in-person safety checks if needed. DCHS also provided fans and information to older adults, people with disabilities and their caregivers.

Volunteers with the Portland Bureau of Emergency Management’s Neighborhood Emergency Team program made phone calls to at-risk community members to ensure they knew about available resources, answer any questions and connect them with services if they expressed any needs.

Despite these extensive efforts, our most recent data shows that 62 people died from excessive heat. Although extreme heat is one of the leading causes of weather-related deaths in the United States — in some years killing more people than all other weather hazards (except hurricanes) *combined*<sup>8</sup> — the severity of these conditions and their impacts is new for Multnomah County. Prior to June 2021, Multnomah County had recorded only two hyperthermia deaths since 2010 — one each in 2016 and 2018. In fact, more people died from the June 2021 heat wave in Multnomah County than died from heat in the entire state of Oregon in the past 20 years.

At the time of this report, Multnomah County is still working to examine the details surrounding the deaths of those who succumbed to hyperthermia during the June 2021 heat event. Our efforts to improve will be informed by these details and what we learn from additional surveys, interviews and analysis of the response. The Centers for Disease Control and Prevention is also investigating heat-related deaths across the region. In the meantime, there are lessons we are implementing in the short term, as well as best practices we are committing to for the longer term.



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8 National Oceanic and Atmospheric Administration, Billion-Dollar Weather and Climate Disasters: Summary Stats: <https://www.ncdc.noaa.gov/billions/summary-stats> & Center for Climate and Energy Solutions, Heat Waves and Climate Change: <https://www.c2es.org/content/heat-waves-and-climate-change/>

## Timeline of Events

### Friday, May 28

- Mult Co Emergency Management hosts a countywide coordination call in advance of the hot weather season.

### Monday, June 21

- The Joint Office of Homeless Services works with partners to begin heat wave outreach.

### Tuesday, June 22

- The Dept of County Human Services works with partners, caregivers, and staff to begin outreach to care facilities and clients living in their own homes/apartments.

### Wednesday, June 23

#### Max temperature on Wednesday, June 23 is 83 degrees.

- The National Weather Service issues an Excessive Heat Watch for Multnomah County beginning Friday through at least Monday.
- Mult Co issues a press release and social media on the heat warning and [Help for When It's Hot](#) resources.
- Mult Co Health Officer shares the message to get inside and cool off emphasizing that COVID precautions are secondary to staying cool.

### Thursday, June 24

#### Max temperature on Thursday, June 24 is 89 degrees.

- Emergency Medical Services and Emergency Departments are already reporting a high volume of patients affected by the heat.
- Mult Co decides to open five library locations as cooling spaces Saturday through Monday.
- The Joint Office of Homeless Services distributes cooling center signup opportunities to its provider networks.

### Friday, June 25

#### Max temperature on Friday, June 25th is 95 degrees.

- Monday's forecasted temperature increased to at least as hot as Sunday.
- Mult Co opens three cooling centers. Locations include the Oregon Convention Center, Arbor Lodge in North Portland, and the Sunrise Center in Rockwood.
- Mult Co Communications publishes social media in five languages with cooling center and cooling space locations.
- The Oregon Convention Center expands capacity to accommodate 300 guests.



## Saturday, June 26

**Max temperature on Saturday, June 26 is 108 degrees.**

- Cooling centers receive additional supplies to mitigate heat related illness for guests (including coolers with ice for water, cooling towels, hydration packets, and pet supplies).
- The County requests that American Red Cross provide additional meals, shelter supplies, and staff.
- U.S. Sen. Ron Wyden visits the Convention Center, speaks to press.
- County Communications issues sector specific guidance and social media for outdoor workers, children, elders and pets.

## Sunday, June 27

**Max temperature on Sunday, June 27 is 112 degrees.**

- Mult Co libraries open four more branches, for a total of nine libraries operating as cooling spaces.
- The Oregon Convention Center expands capacity again, allowing up to 450 guests.

## Monday, June 28

**Max temperature on Monday, June 28 is 116 degrees.**

- The County decides to keep 24-hour cooling centers open through Wednesday, June 30.
- All Portland Parks activities are cancelled today, including summer camps and pools.
- TriMet suspends all train service until Tuesday morning.

## Tuesday, June 29

**Max temperature on Tuesday, June 29, is 93 degrees.**

- Mult Co decides to keep library locations open as cooling spaces for the public with modified hours through July 2.

## Wednesday June 30

**Max temperature on Wednesday, June 30, is 94 degrees.**

- Cooling centers close 9 a.m.



## Lessons and Action Steps

### Cooling Interventions

Multnomah County has a statutory responsibility<sup>9</sup> to perform emergency management functions. This responsibility includes supporting our cities, unincorporated areas, and other governmental and community-based partners in their efforts to provide mass care and sheltering. Multnomah County follows the Federal Emergency Management Agency’s Emergency Support Function 6 (ESF 6) framework to provide support for mass care, emergency assistance, temporary housing and human services during disasters.

In any emergency that calls for mass care and sheltering, our goal is to ensure safe, accessible, welcoming and life-saving services for our communities. During heat events, the County supports our cities and unincorporated areas to implement cooling interventions including, but not limited to, operating and supporting the operation of Cooling Shelters and Cooling Spaces, and providing cooling resources to the community.

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<sup>9</sup> Oregon Revised Statutes: [https://oregon.public.law/statutes/ors\\_401.305](https://oregon.public.law/statutes/ors_401.305)

During the June 2021 heat wave:

- Three Cooling Shelters served a total of 1,400 overnight guests and provided 6,330 meals.
- Nine libraries served as Cooling Spaces.
- The County coordinated the work of nearly 100 outreach teams, mutual aid groups and community volunteers; those organizations distributed 14,000 cooling towels, 32,000 electrolyte packets, 8,000 containers of sunscreen, 4,500 hygiene kits, 67,000 water bottles and several hundred box fans to community members.
- Cascadia Behavioral Health, Project Respond and Multnomah County's Behavioral Health Division provided behavioral health support in the Cooling Shelters.
- Twenty-five physicians, nurses and paramedics from the Medical Reserve Corps, as well as 20 nursing students from Concordia University, provided medical support.
- Cooling Shelters were staffed by nearly 350 general staff and coordinators, including 155 County employees, 129 Neighborhood Emergency Response Team volunteers, 45 volunteers from the general public, 18 City of Portland employees and one Portland Public Schools employee.
- Vaccinations and vaccine education were offered at the Oregon Convention Center and Arbor Lodge Cooling Shelters.
- Multnomah County Animal Services provided a range of supports for pets in the Cooling Shelters, including 35 crates, 18 bowls for food and water, 40 leashes, 250 pounds of dog food, and 80 pounds of cat food.

As the heat event unfolded, temperatures reached highs that were more extreme than originally forecast, creating a community need that overwhelmed the County's planned response. Historically, the County's Cooling Centers have attracted no more than 50 guests, across all sites. However, within hours of Cooling Shelters opening June 25, approximately 60 guests arrived at just one of the three locations. While the County had researched and implemented the most effective evidence-based interventions for extreme heat, the magnitude of this event stretched our capabilities.

The County projected it could safely operate three Cooling Shelters safely with the staffing available. A strategic conversation with cities and unincorporated partners regarding community assets and needs did not result in the identification of additional locations. Community-based organizations and service providers expressed feeling underutilized and a desire to be more engaged in the planning and response process going forward.

The June 2021 heat event highlighted three primary areas that will improve our ability to support cooling interventions and other emergency interventions.

## Action Steps

### **Increase the pool of potential Cooling Shelters, Centers and Spaces**

- Work with Metro, cities, school districts, higher education institutions and unincorporated areas across Multnomah County to identify additional facilities and/or outdoor areas that could be available as Cooling Shelters, Cooling Centers and Cooling Spaces, embedding equity and epidemiology into the method for determining locations of facilities.
  - Formalize the critical role of Multnomah County libraries as respite sites during emergencies, including hot weather. Increase hours of operation during weather emergencies.

## **Build more capacity to support cooling interventions**

- With a team of County leaders, develop additional strategies to support all-hands-on-deck emergency responses, including incorporating emergency response roles into job profiles, encouraging flexible staffing models and offering additional support for managers.
- Enhance support capacity for partners who step forward to open Cooling Centers or Cooling Spaces, including technical assistance and/or additional resources.
- Host additional pre-event refresher training webinars to help prepare new volunteers and staff for their Cooling Shelter and Cooling Center work.
- Expand and increase learning and training opportunities for all County staff.
  - Update training for staff who support Cooling Shelters and Cooling Centers, using a multidisciplinary operations team approach.
  - Increase the number and accessibility of disaster resiliency trainings to assist County staff and their loved ones to become better prepared for their critical role as a safety net for our community.
  - Incorporate an introduction to the County's emergency response role in new employee orientation.
- Improve safety in Cooling Centers and Cooling Shelters through a reexamination of current safety guidelines, improved communication of guest expectations and training on trauma-informed de-escalation practices.
- Improve administrative capability and capacity to ensure we have adequate staffing to manage the scheduling and assignments of duties during an emergency. Stakeholders in the June heat event identified a gap regarding having Cooling Shelter staff with the right skill sets, such as behavioral health training and management experience. This action item seeks to address such gaps.

## **Develop strategies to help people stay safe in place**

As the tragic deaths of more than 60 people demonstrates, Cooling Shelters and Cooling Centers don't work for everyone who is at risk. Even as we work to identify additional and more easily accessible options for Cooling Shelters and Cooling Centers, efforts to help people stay safe and cool in place must also be enhanced. Several methods will be explored:

- With the help of community members and partner agencies, including culturally specific and culturally responsive organizations, we will determine what supports will help keep people safe in their homes and then develop materials and/or training to provide to those who check in on people at greatest risk.
- Enhance door-to-door and other types of outreach efforts by exploring coordinated approaches to track these activities. Work with cities, community-based organizations and unincorporated areas to create a collaborative system for wellness checks that includes a menu of resources for those hoping to help neighbors and loved ones.
- Ensure building managers have appropriate plans and training to respond to emergencies, including extreme heat events.
- Scale up existing partnerships, programs and policy efforts to install cooling systems in low-income housing, focusing on climate-neutral options, such as heat pumps. This could include expanding initiatives within the Department of County Human Services' Weatherization Program, which aims to support people with lower incomes by making their houses more energy efficient, comfortable, healthy and safe.



## Communications and Outreach

Communication plays a critical role in an emergency response. Multnomah County has a responsibility to issue timely and accurate information to the public via our call centers, website, social media, media releases, media interviews and Flash Alerts, and through our partners. During any emergency, our communications goals are simple: inform residents about risks and provide practical information about actions they can take and the resources available to them.

The County used the time after the May 28 coordination call to refresh the “Help for When it’s Hot” website. This update included updating the site’s downloadable resources and checking an interactive map of cooling locations to ensure it was operational and ready for input from partners. On June 23, the County issued a media release with the message that the forecasted heat posed a life-threatening emergency and that people should stay indoors or make a plan to get somewhere cool. We encouraged community members to identify others who might need help. We also included information about Cooling Shelters and Cooling Spaces, symptoms of heat illness, and the Health Officer’s advice that outdoor event organizers postpone or cancel events to keep people safe.



In addition to the initial media release, the County worked with media, agency and organization partners to launch an effort to underscore the seriousness of the heat forecast, and to get as much life-saving information to people as possible. This included:

- Creating and posting 27 graphics on warnings, heat stroke, and at-risk populations like kids, seniors and outdoor workers. These were concise, plain-language messages intended for sharing on social media for the broadest possible audience.
- Translating 12 graphics into languages other than English and making these available online for download and printing by Cooling Shelter operators; these materials were also shared with nonprofit partners.
- Creating and posting seven heat-warning videos that were also shared with media.
- Writing seven media releases and stories for the County’s “Help for When it’s Hot” webpage.
- Posting more than 130 safety messages across our social media platforms. We posted in English, Chinese, Spanish, Russian and Vietnamese.
- Working with local, national and international media to schedule and conduct more than 150 interviews in seven days.
- Conducting direct outreach about heat risk to pregnant County clients and clients with infants via text, reaching 12,000 contacts in multiple languages.
- Our Emergency Operations Liaisons unit — a group of internal and external partners who over this last year have served as critical connectors between various industries, sectors and communities within Multnomah County — reached out to their networks and encouraged them to make phone calls to at-risk community members about available resources and to answer questions.
- 211info — a critical community resource that many in our community depend upon to get help when they need it — fielded over 1,000 calls to provide information to callers about Cooling Shelters, Cooling Spaces and transportation options.

Amid those extensive efforts, there remain key areas to strengthen our communication and outreach response for the next emergency and beyond.

Even though 211info served as a critical 24-hour clearinghouse for Cooling Shelter information and transportation assistance in Multnomah County, at the time of the June 2021 extreme heat event, 211info’s existing operating procedures were not aligned with the catastrophic heat event response. During this event, 211info dropped more than 750 calls, and callers reported long waits and inaccurate information on the automated line.

As is the case with all emergencies, information also changed quickly, challenging our communications response. As new Cooling Shelters and Cooling Spaces opened with different support services available, rapid updates were made to our online and downloadable materials, but limited access to translators delayed our ability to quickly provide this information in multiple languages.

Given Multnomah County’s historically temperate climate, many residents, until this event, had no frame of reference for the toll extreme heat can take or how deadly it can be. Even with a clear message about the risk, many people may not fully understand the body’s vulnerability to extreme and prolonged heat. Moving forward, Multnomah County is committed to deepening and expanding our methods of reaching our community with critical information during an emergency, using both technology and direct outreach.

## Action Steps

### **Amplify heat risk messaging**

- Use community notification systems to amplify messaging. People often engage in message confirmation before taking action<sup>10</sup>, and adding this additional platform will help provide another avenue for accurate information.
- Educate the public about heat risks, including launching seasonal awareness messaging around extreme heat, working with partners in the media, and focusing on culturally specific channels.

### **Enhance outreach strategies**

- Increase our capacity for focused door-to-door outreach. In collaboration with our partners, create wellness check training that incorporates safety skills as well as strategies for organizations, neighbors and loved ones to participate more fully in life-safety operations during emergencies, including heat incidents.
- Work with the Emergency Operations Liaisons unit to create more opportunities for two-way communication and engagement in emergency response efforts.
- Use lessons learned from this heat event to rebuild the Preparedness Advocates program, a team of bilingual community members trained in providing emergency response and preparedness presentations to culturally specific communities. Include language support during emergencies as a key role and responsibility, a shift that will help ensure the ability to create culturally specific and appropriate communications.

### **Build our capacity to communicate**

- Train more County staff as public information officers to expand the pool of communications staff during emergencies.

### **Improve communications coordination with partners**

- Use a Joint Information System framework, a standard organizational structure used in emergency management, to allow communications specialists from the County and partner agencies to coordinate, develop and deliver messages during an event.
- Continue to work with 211info on emergency response process improvements, including specific deliverables around operations response and communication needs.
- Ensure Multnomah County and the City of Portland have the capacity and capability to backup 211info if call volumes increase rapidly and surge capacity is needed to minimize the potential for dropped calls.

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10 CERC: Psychology of a Crisis. "We look for additional information and opinions" page 4: [https://emergency.cdc.gov/cerc/ppt/CERC\\_Psychology\\_of\\_a\\_Crisis.pdf](https://emergency.cdc.gov/cerc/ppt/CERC_Psychology_of_a_Crisis.pdf)



## Partnerships and Planning

The value of interagency relationships and close coordination leading up to and during disasters cannot be overstated. Simply put, no single agency or organization can adequately respond to emergencies and disasters alone.

Multnomah County is committed to both being part of a robust community response in a heat emergency and addressing the root causes that contribute to the frequency and severity of these heat events.

As we learn from the June 2021 heat event and prepare for future heat emergencies, Multnomah County is working with leaders of our cities, schools and other partners to identify opportunities for greater collaboration. This includes the potential for additional public facilities that could serve as Cooling Shelters and Cooling Centers, shared staffing strategies that can support these efforts, and potential policy and program changes that will better respond to community needs. Building that capacity and commitment now will further improve our ability to respond in the future.

As the coordinator of our community-level response and the convener of our partners, Multnomah County is also committed to making internal changes that improve our ability to work together and facilitate getting information and resources to residents as quickly and equitably as possible.

## Action Steps

### Strengthen partner coordination

- Examine roles and responsibilities, and pursue formal agreements that guide coordinated preparedness, mitigation, response and recovery between our public partners, including cities, unincorporated areas, community-based organizations and private industry.
- Formalize agreements with partner agencies around specific actions and policy changes. Examples include but are not limited to:
  - **TriMet**: Conduct policy-level discussions with TriMet about ways to make buses and trains more accessible during catastrophic heat so people have another way to get cool and stay cool.
  - **211info**: Complete an emergency activation addendum to the State's contract with 211info that details deliverables and expectations.
- Actively engage internal and external partners in discussions regarding processes and tools that will increase the effectiveness of our coordination. During the June 2021 heat event, daily coordination calls were used to obtain verbal agreement regarding roles, responsibilities and commitments between partner organizations. Notes from the meetings outlined these agreements and were shared with participants via email. Requests for resources or support were also most often made verbally during the calls, without a formal approval process. This system provided flexibility and speed; however, using more formal Emergency Operations structures may provide greater clarity for planning communications and for tracking commitments and actions.

### Strengthen County planning efforts

Update current standard operating thresholds to increase our advance planning window, and continue to perform annual reviews to update thresholds based on lessons learned from previous seasons.

Convene a cross-disciplinary, multi-jurisdictional team to review policies, plans, and staffing and training needs related to mass care and sheltering. This team will include, but not be limited to, the Office of Diversity and Equity, the Department of County Human Services, the Health Department, the Joint Office of Homeless Services, Multnomah County Emergency Management, and representatives from cities and unincorporated areas.

Expand heat-mapping efforts in east Multnomah County to better understand where resources need to be deployed during extreme heat.

## Facing the Climate Crisis

The June 2021 heat event would have been virtually impossible without human-caused global warming and climate change. Researchers estimated the extraordinary temperatures were a once-in-1,000-year event. However, if current greenhouse gas emissions continue, an event this extreme could happen every five to 10 years by the year 2040.<sup>11</sup> Other impacts of the climate crisis are also being felt across Oregon and Multnomah County, including record drought conditions, wildfires and smoke. Hotter and drier summers and winters, with more intense storms, mean that there is less snow in the mountains and that forests dry out earlier in the summer, leading to more wildfires, more smoke, worse air quality, more extreme heat, and a variety of other conditions that will affect people's health and wellbeing.

Dramatic negative impacts  
of the climate crisis that seemed far off  
are hurting our community today.  
This is a moment for the County  
to redouble our efforts to both mitigate  
and prepare for the worst effects  
of climate change.

The County has had a longstanding commitment to addressing climate change by leveraging our regulatory, programmatic and agenda-setting role to advance equitable climate solutions. The County partnered with the City of Portland to jointly adopt the 2001 Local Action Plan on Global Warming. In 2009, the County and Portland adopted a Climate Action Plan, establishing long-term goals for reducing carbon emissions — 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. The current iteration of the Climate Action Plan was adopted in 2015, expanding the focus to include climate adaptation planning, public health and social equity.

While the majority of actions from the 2015 Climate Action Plan were completed or on track to be completed by 2020 (77%), some of those actions need ongoing implementation. This is especially true for actions that decrease emissions and help the community become more climate resilient. Examples include home weatherization, home electrification with heat pumps that efficiently heat and cool, and neighborhood tree planting.

In 2017, the Multnomah County Board of Commissioners and the Portland City Council adopted more stringent goals of eliminating all carbon emissions communitywide by 2050 and decarbonizing electricity supplies no later than 2035. These actions have resulted in emissions from Multnomah County operations dropping by 65% since 2007 — the baseline year for reporting. Communitywide, Multnomah County emissions have decreased 19% below 1990 levels. However, transportation emissions have increased in recent years.

Multnomah County's Health Department has been a longtime leader in understanding the connections between climate change and population health. Since 2010, Multnomah County has received funding from the Centers for Disease Control and Prevention, the Oregon Health Authority,

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<sup>11</sup> World Weather Attribution. Western North American extreme *heat virtually impossible without human-caused climate change*. July 7, 2021.

## Learn more about our climate and health work

[Climate Action Plan Final Progress Report, 2020](#)

[Climate Action Plan Progress Report, 2017](#)

[Climate Action Plan, 2015](#)

[Climate Change Preparation Strategy, 2014](#)

[Climate Change Preparation Strategy: Risks and Vulnerabilities Assessment, 2014](#)

[Climate Change Preparation Plan, 2013](#)



and the Public Health Institute to develop capacity in this area. The department’s Environmental Health unit has been involved in advocacy, developing legislation and advising on state rules related to climate. In 2020, the Health Department helped lead a legislative “Call to Action on Climate, Health, and Equity.”<sup>12</sup>

Led by the Multnomah County Office of Sustainability, the County is updating the 2015 Climate Action Plan through a community-based process called Climate Justice by Design. Our focus on climate justice is grounded in the County’s responsibility to support and protect the most vulnerable people in our community who are most at risk of experiencing disproportionate impacts and harms of climate change.

### Action Steps

- Pursue policies to accelerate the decarbonization of Multnomah County’s electricity supply. This means getting Multnomah County’s electricity supply for all customers to be 100% renewable and free of carbon pollution by 2035 or sooner.
- Co-develop — in partnership with organizations based in the communities of color that have experienced the first and worst consequences of climate change, a new Climate Action Plan through the Climate Justice by Design process.
- Prioritize state-level policy advocacy around green building codes, transitioning from fossil fuels and other harmful policies to promote climate stability.
- Continue to build capacity at the County for subject matter expertise on the intersection of climate and health.
- Scale up current Multnomah County efforts to increase the tree canopy in urban heat islands located in the county.
- Find strategies and funding to scale up low-income household weatherization efforts, particularly in east Multnomah County.
- Establish a strategy for electrifying Multnomah County’s fleet, and pursue policies that set Multnomah County, as a government entity, on a path toward ending its own reliance on fossil fuels.
- Adopt strategies/policies that help Multnomah County further reduce the carbon footprint of our emergency response.

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<sup>12</sup> Oregon Public Health Association, Call to Action on Climate, Health, and Equity: <https://www.oregonpublichealth.org/call-to-action-for-climate--health--and-equity>



## Conclusion

Each of the actions described above will require thoughtful and dedicated work within the County, with our partners and with the communities we serve. And there is more to the story. We await the regional findings from the Centers for Disease Control and Prevention on heat deaths, as well as our own After-Action Report. In the meantime, we will continue to provide safe, accessible, life-saving services to our community. To learn more about what you can do to stay cool and support others to do the same, visit our “Help for When it’s Hot” webpage.

Again, we want to make clear: Our hearts go out to everyone in our community who lost a loved one to the extreme heat in June. We are committed to doing all we can to keep people safe in future heat crises.

# Appendix A

## Heat Call Operational Briefing - Participating and Invited Organizations

### Organizations Briefing

City of Gresham	Multnomah County Department of Community Justice (DCJ)
City of Portland Bureau of Emergency Management	Multnomah County Health Department (HD)
Joint Office of Homeless Services (JOHS)	Multnomah County Department of County Human Services (DCHS)
Multnomah County Chair's Office	Multnomah County Library
Multnomah County Communications Office	National Weather Service
Multnomah County Department of Community Services (DCS)	Portland General Electric
Multnomah County Department of County Assets (DCA)	TriMet

### Additional Organizations Participating / Invited

American Medical Response (AMR)	Multnomah County Office of Community Involvement
American Red Cross	Multnomah County Office of Diversity and Equity (ODE)
City of Fairview	Multnomah County Office of Government Relations
City of Maywood Park	Multnomah County Office of Sustainability
City of Portland Bureau of Fire and Rescue	Multnomah County Sheriff's Office (MCSO)
City of Troutdale	Northwest Natural Gas
City of Wood Village	Oregon 211info
Corbett Fire	Oregon Department of Environmental Quality
District Attorney's Office	Oregon Office of Emergency Management
Metro	Oregon Volunteer Organizations Active in Disasters (ORVOAD)
Multnomah County Attorney	PacifiCorp
Multnomah County Circuit Court (4th Judicial District)	Regional Disaster Preparedness Office
Multnomah County Department of Community Justice (DCJ)	
Multnomah County Department of County Management (DCM)	



# Appendix B

## Organizations That Assisted with Resource Distribution

Alliance/PPOP	HOPE Team	Portland Street Medicine
AS IS Church	Hygiene 4 All	Portland Street Response
Beacon Village	Independent Medics	Potluck in the Park
Because People Matter	Industrial Workers of the World	Project Homeless
Blanchet House	Janus Youth	Project Respond
Bridges to Change Inc.	JOIN	Rahab's Sisters
Creating Conscious	Matzah Bloc	Rapid Response
Communities with People	Meals on Us PDX	Right 2 Survive
Outside - C3PO	Move Food	Rose Haven
Care Bloc	Mutual Aid Alliance	Salvation Army Female
Cascadia Behavioral Health	Native Wellness Institute	Emergency Services - SAFES
Catholic Charities	NAYA	Service on the Street
Clean Start	Neighborhood associations	Sisters of the Road
Community's Non-Profit	New Avenues for Youth	St. Johns Safelight
Cool Camp Collective	NW Enforcement of Hospitality	Straightway Services
Clackamas Service Center -	Operation Nightwatch	Stroll
CSC	Oregon Harbor of Hope	The People's Depot
Cultivate Initiative	Outside In	Transition Projects
Do Good Multnomah	Outside the Frame	Trash for Peace
Ethiopian and Eritrean Cultural	Partners in Prayer	Union Gospel Mission
and Resource Center	Portland Bureau of	Unism Church
Feed the Mass	Transportation	Urban League of Portland
First United Ministry of Christ	People's Harm Reduction	Victory Project PDX
Food For the Community	Play Grow Learn	Waste Not Food Taxi
Free Hot Soup	Portland Downtown	We Shine
Fresh Air PDX	Portland Freedom Fund	William Temple House
Good Neighbor Project	Portland Mutual Aid Network	Western Regional Advocacy
Grace Church PDX	Portland Rescue Mission	Project - WRAP