

## CITY OF PHOENIX WEEKLY HEAT RESPONSE UPDATE

MONDAY, JULY 25, 2022

REVIEWING MONDAY, JULY 18–SUNDAY, JULY 24

### Summary

Another week with above average temperatures brought considerable impacts to the Phoenix area. Heat-related calls to the Phoenix Fire Department continued to outpace last year’s call volume and the Maricopa County Department of Public Health added 12 newly confirmed heat-associated deaths to the 2022 total. City heat response operations continue to reach more community members; the We’re Cool program, as one example, has now exceeded 1,800 engagements.

A major shift in the regional weather pattern has brought lower temperatures to the Phoenix area, and below-average temperatures are expected to continue for at least the remainder of the week, if not longer. However, temperatures will still be high enough to cause adverse public health impacts, particularly among the most physiologically susceptible.

### I. RECENT AND YEAR-TO-DATE WEATHER CONDITIONS

The previous week included one of the hottest stretches of the year to date, with four consecutive days reaching 110°F or higher and four consecutive nights at 90°F or higher. The overnight low temperature of 95°F on July 22 was the second highest low temperature in Phoenix history; the low of 94°F on July 19 ranked as the eighth highest. Temperatures dipped below average by the end of the week with a significant shift in the regional weather pattern. This summer (April 1 to present) is now approximately 1.0°F hotter than the same period in 2021 and 3.3°F higher than the climatological normal.

Red=highest high Blue=lowest high low breaks ties	Daily High °F	Normal High °F	vs. Normal °F	Daily Low °F	Normal Low °F	vs. Normal °F
Mon 7-18	108	106.5	1.5	82	85.0	-3.0
Tues 7-19	111	106.5	4.5	94	85.0	9.0
Weds 7-20	111	106.4	4.6	91	85.0	6.0
Thurs 7-21	110	106.3	3.7	90	85.0	5.0
Fri 7-22	114	106.3	7.7	95	85.0	10.0
Sat 7-23	108	106.2	1.8	84	85.0	-1.0
Sun 7-24	100	106.2	-6.2	80	85.0	-5.0

## HOT DAYS AND NIGHTS TRACKER

	Year to Date (2022)	Year to Date (2020)	Normal Year to Date
100°F days	64	70	56.9
110°F days	20	22	12.5
85°F nights	27	22	16.1

Notes: Year to Date statistics for 2020 are included as a point of comparison to the hottest summer in the recorded history of Phoenix by most climatological measures. Normal is defined based on the 1991–2020 time period.

## HEAT WARNING TRACKER

Excessive Heat Warnings were in effect on July 21 and 22, bringing the year-to-date total to 10 days. An Excessive Heat Warning that was issued for Sunday, June 17 was cancelled. The last year that had fewer than 10 Excessive Heat Warning days in a summer was 2014.

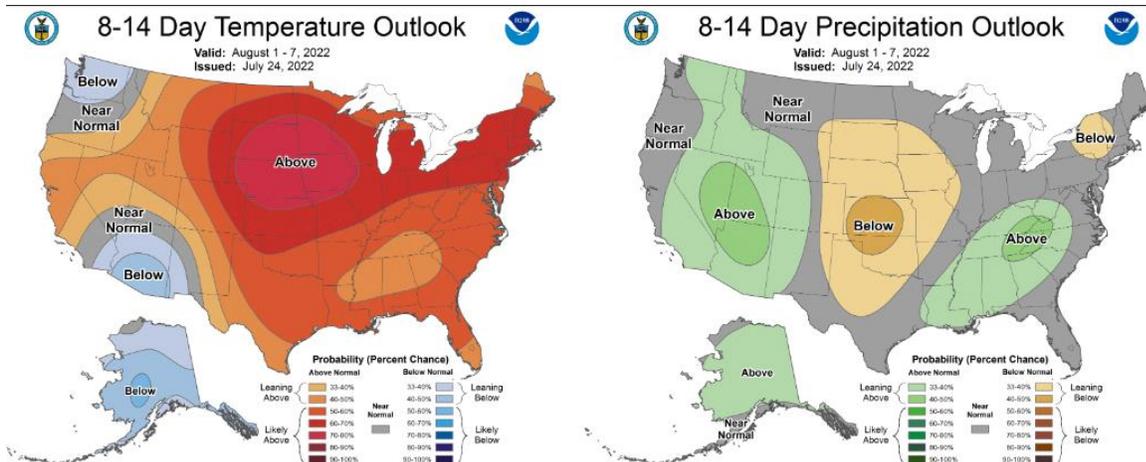
## 2. NATIONAL WEATHER SERVICE FORECAST

Temperatures are forecast to be below the climatological average of 106°F for the entirety of the upcoming week, and may not reach 100°F until Thursday. Every day in the forecast period is considered Low HeatRisk, per the National Weather Service. The atmosphere will be quite humid, with dew point temperatures near 70°F during much of the early part of the week. Much of the Phoenix area will see some rain and thunderstorm activity.

Mon	Tue	Wed	Thu	Fri	Sat	Sun
99	97	99	100	102	104	104
84	84	83	84	84	85	87

No risk.	Risk to those extremely sensitive to heat.	Risk to those sensitive to heat.	Risk to most people.	Risk to everyone.
None	Low	Moderate	High	Very High

The early forecast for the following week shows a continuation of the current pattern with temperatures below average and elevated chances of precipitation.



### 3. HEAT-HEALTH DATA

#### HEAT-RELATED MORTALITY AND MORBIDITY

The Maricopa County Department of Public Health is reporting 29 confirmed heat-associated deaths for 2022, an increase of 12 cases from the previous reporting period. As of their July 16 report, there are 193 additional cases under investigation, an addition of 67 cases from the prior week. MCDPH heat-health reports are available online:

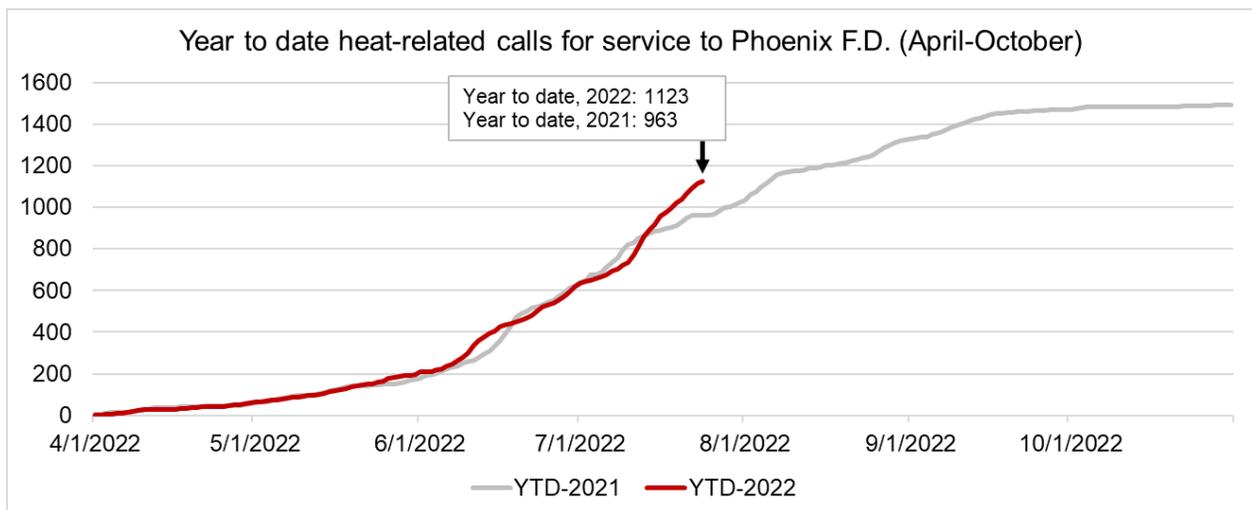
<https://www.maricopa.gov/1858/Heat-Surveillance>.

#### HEAT-RELATED CALLS FOR SERVICE TO PHOENIX FIRE DEPARTMENT

The Phoenix Fire Department responded to 147 calls for service identified by the dispatcher to be related to heat over the previous week. This was a lower number of calls than last week, but still represents the second highest number of calls in one week so far this year (the highest number of calls in one week occurred last week, with 243). Advanced life support systems were deployed for 41 of the 147 calls. In 2021, the same 7-day period had 67 calls for service related to heat, with much lower high temperatures (average high temperature of about 100°F in 2021, compared to 109°F last week).

The highest daily number of calls over the previous week occurred on Thursday July 21 (high of 110°F), with 27 heat-related calls, which was significantly less than the daily maximum number of calls last week (52 calls). June 19 had the most heat-related calls last year with 43, with a high temperature of 116°F. (Note: heat dispatch call data typically do not reflect mountain rescues related to overheating and/or dehydration).

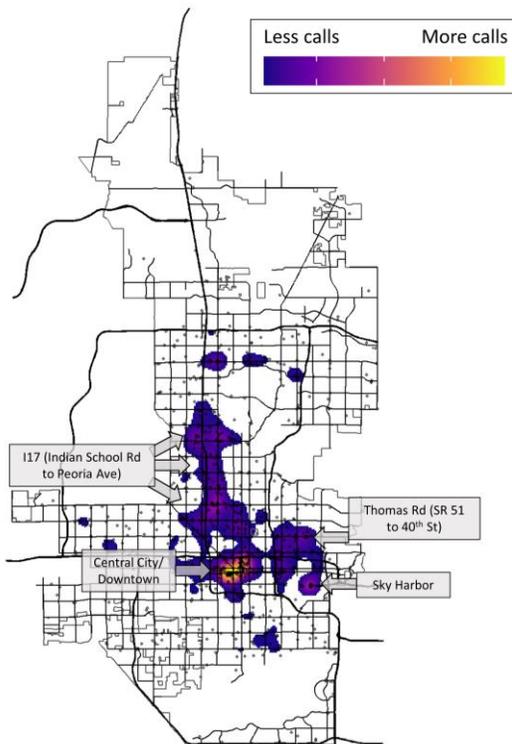
Year to date, heat-related calls for service to the Phoenix Fire Department are now running approximately 17% **higher** than 2021.



Spatially, since June 1, 2022 to date (through July 24), heat-related calls for service have continued to concentrate in a few areas: the Central City/Downtown area, Sky Harbor airport, and along the I-17 from Indian School Rd to Peoria Ave. Additionally, some more minor areas of concentration have emerged on Thomas Rd from State Route 51 to 40<sup>th</sup> St, around 24<sup>th</sup> St from Thomas Rd to Jefferson St, and near Central Ave between Camelback Rd and Thomas Rd. Over the past week, the areas of concentration are largely the same.

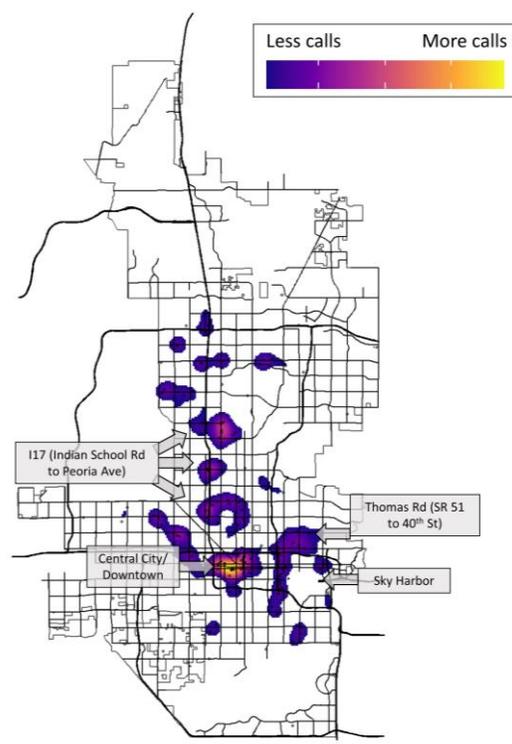
### June 1 – July 3

Map of Phoenix Fire Department calls for service related to heat June 1 – July 24, 2022  
 \*Note: Point locations are approximated based on partial addresses or cross streets.



### Last week (July 11 – July 17)

Map of Phoenix Fire Department calls for service related to heat July 18 – July 24, 2022  
 \*Note: Point locations are approximated based on partial addresses or cross streets.



## 4. COMMUNITY SEARCH DATA

### PHOENIX 3-1-1

There were 2 inquiries made through Phoenix 3-1-1 for July 18–July 22 that were related to summer heat, a decrease of 6 calls from the week prior and the lowest call volume of the summer. These two calls were related to pool fencing and air conditioning repair.

## ARIZONA 2-1-1

There were 280 requests for electrical utility assistance fielded by Arizona 2-1-1 over the previous week in Maricopa County, which was a slight decrease from the week prior.

## GOOGLE SEARCH

Google staff members are preparing a prototype customized dashboard for monitoring heat-health impacts and search queries related to heat for the City of Phoenix that will be tested and evaluated this summer. Publicly available Google Trends data for Arizona showed an spike in searches for heat warnings, a slight increase in searches for air conditioning, heat exhaustion, and cooling centers, and no trend in searches related to swimming pools or heat stroke.

## 5. STATUS OF HEAT RESPONSE PROGRAMS AND SERVICES

Program status indicated by color in status column. Updates are provided in the right-hand column as relevant to program planning and implementation.

	Fully operational (25 programs)
	Partially operational (1 programs)
	Planning and preparation (5 programs)
	No action to date (0 programs)
	No information available (0 programs)

City of Phoenix Heat Response Programs and Services – Summer 2022				
Initiative	Target population	Lead depts.	Status	Updates
<b>FOCUS AREA 1. Situational awareness at City Hall and real-time response</b>				
1.1 First responder services	ALL	FIRE, PD		Normal operations.
1.2 Reciprocal relationship with 3-1-1 and 2-1-1	ALL	OHRM, 311		More search terms and customized analysis will be added in future reports. Staff are following up on selected 311 calls.
1.3 Real-time monitoring of weather and health data with AZ Heat Resilience Work Group	ALL	OHRM		Normal operations. The work group meets biweekly on Thursday afternoons during the summer with participation from multiple city departments.
1.4 Enhancing heat response resources for first responders	ALL	OHRM, PD		Planning continues with OHRM and PD staff. Customized cooling center maps are being prepared for fire stations in highly impacted areas.
1.5 Pilot program with Google search data for public health	ALL	OHRM		Pilot dashboard in development. Additional planning conversations were held during the last week of June.
1.6 Weekly status reports	CITY DEPTS	OHRM		Twelfth report distributed July 25.
<b>FOCUS AREA 2. Public engagement, communications, and outreach</b>				
2.1 Multi-platform Heat Safety Messaging	ALL	COMMS, OHRM		Summer safety messaging has transitioned to full operational mode and includes new content produced by the Communications team this year.

2.2 We're Cool Volunteer Program	UNSHELTERED , HIKERS	VOL, OHRM, FIRE		48 outreach shifts have been completed, with 41 focusing on street outreach and 7 at City trailheads. More than 1800 contacts have been made through this program. Supplies distributed include water, hats, sunscreen, cooling center maps, heat safety cards, cooling towels, misters, and umbrellas. Community volunteer onboarding and engagement continues to increase.
2.3 Cool Callers Volunteer Program	LIVING ALONE, LIMITED COOLING	VOL, OHRM		Multiple referrals to other City and regional services have been made through the first four weeks of phone calls. Enrollment of additional participants and volunteers continues with a round of volunteer training scheduled for the upcoming week.
2.4 Let's Talk Heat Booklet	ALL	A&C		Booklets are available for distribution, and a digital version is available on the City website (link available below).
2.5 Investments in Cooling Center Signage	ALL	OHRM, VOL		New signs for cooling centers are being distributed to City facilities and community partners through multiple channels, including the Cooling Center Response Network platform.
2.6 Heat Relief Resource Distribution	ALL	OHRM, VOL		Order fulfillment continues, with evaporative coolers and ice makers arriving in the coming weeks. 40 organizations have been allocated supplies with more than 35,000 individual items committed.
<b>FOCUS AREA 3. Publicly accessible cool space and drinking water</b>				
3.1 Supporting the regional Heat Relief Network	ALL	OHRM, LIBRARY, PARKS, HSD		56 City facilities are participating as cooling centers or hydration stations. Staff from multiple departments are supporting Heat Relief Network participation, including managing water distribution. Staff are filling requests from community organizations for printed maps showing locations of nearby cooling centers and hydration stations.
3.2 Reusable water bottle pilot program	ALL	OHRM, PUBLIC WORKS		Staff are continuing to distribute bottles from an initial inventory of 5,000 reusable aluminum water bottles through the We're Cool Program. A qualifying bid for a larger order has been secured through an RFQ.
3.3 Shade and shelter enhancements at and near the Human Services Campus	UNSHELTERED	HSD		Staff implemented a new cooling tent at 9 <sup>th</sup> Avenue and Jackson on June 11 that will operate through the summer, and continue to explore opportunities to improve cooling and water access in this area. Intermittent challenges with the cooling system at the new tent are being addressed in a timely manner by staff and contractors.
3.4 New shelter at 28 <sup>th</sup> St. and Washington St.	UNSHELTERED	HSD		The shelter is fully operating with high demand and use.
3.5 Provision of portable water tanks	ALL	WATER, OHRM		Staff are scheduling a meeting with the manufacturer to confirm operational details in the next week.
<b>FOCUS AREA 4. Supporting cool and safe home environments</b>				
4.1 Cooling ordinance and landlord tenant program	RENTERS	NSD, HSD		Normal operations.
4.2 Housing repair programs and weatherization	LIMITED HOME COOLING	NSD		Normal operations. Staff continue to develop neighborhood prioritization criteria for expansion of home weatherization with ARPA funding and are exploring collaborative opportunities with NOAA.
4.3 Emergency utility assistance	LOW INCOME	HSD		Normal operations.
4.4 Suspension of water shutoffs	LOW INCOME	WATER		Normal operations.

4.5 Navigating utility disconnection rules	LOW INCOME	OHRM, COMMS		Web content has been disseminated through City platforms and channels. OHRM and 311 staff reviewed existing rules at the start of summer to ensure accurate communication to residents.
<b>FOCUS AREA 5. Supporting cool and safe mobility and recreation</b>				
5.1 Take a Hike, Do it Right	HIKERS	PARKS		Normal operations. Piestewa Peak and Camelback summit trailheads have closed during Excessive Heat Warnings, as planned.
5.2 Adding shade structures at transit stops	TRANSIT USERS	TRANSIT		Normal operations.
5.3 Valley Metro real-time transit tracking	TRANSIT USERS	TRANSIT		Normal operations.
5.4 ARPA-funded transit passes	NON-PROFIT ORGS AND THEIR CLIENTS	TRANSIT		Normal operations.
5.5 City pools	ALL	PARKS		City pools have opened for summer 2022.
5.6 SunBlock Umbrella Distribution	ALL	A&C		Sun umbrellas featuring 14 designs from local artists have been delivered to Council offices and are beginning to be distributed at public events.
<b>FOCUS AREA 6. Supporting cool and safe workplaces and schools</b>				
6.1 City employee heat safety efforts	CITY EMPLOYEES	HR SAFETY		Normal operations.
6.2 Promoting ADHS School Heat Safety Toolkit	SCHOOLS	OHRM, COMMS		Messaging content is being prepared to share for the start of the 2022-2023 school year later this summer.
6.3 Reducing and reporting workplace heat safety concerns	EMPLOYERS, EMPLOYEES	OHRM, COMMS, HR SAFETY		Messaging content is being prepared to share throughout the summer, staff are planning cross-departmental meeting to discuss engagement with state agencies including ADHS and ADOSH.

Department key: OHRM – Office of Heat Response and Mitigation; PD – Police; COMMS – Communications; VOL – Volunteer Programs; A&C – Arts and Culture; HSD – Human Services Department; NSD – Neighborhood Services Department.

## 6. HEAT RESPONSE PROGRAM HIGHLIGHT

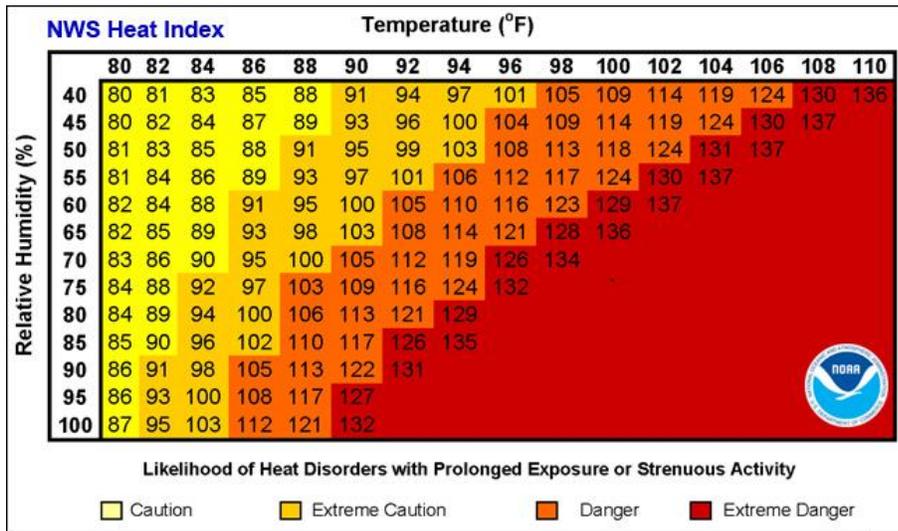
A new cooling tent was installed earlier this summer at 9<sup>th</sup> Avenue and Jackson Street to help people experiencing homelessness find a safe space for relief from the heat beyond options available on the Human Services Campus. Cooling tent operations are managed by city staff in collaboration with staff from the Human Services Campus. Over the past week, upgraded cooling equipment was installed by the rental equipment provider that will help keep the tent cooler on especially hot summer days.

## 7. REGIONAL AND NATIONAL HIGHLIGHT

President Biden announced new initiatives on July 20 to help communities across the country better prepare for and respond to threats associated with extreme heat. Executive action added funding to the Building Resilient Infrastructure and Communities (BRIC) program run by the Federal Emergency Management Agency (FEMA). The President also added flexibility to the administration of Low-Income Home Energy Assistance Program (LIHEAP) funding that creates more opportunities for local governments to provide cooling resources to the community.

## 8. HEAT SAFETY – DID YOU KNOW?

The upcoming week is expected to have considerably lower air temperatures with an increase in humidity. Humidity is typically low enough in our region such that it does not considerably modify the risk of heat-related illness, but this week, the increase in humidity will push heat indices up to 5-6°F above air temperature. Afternoon relative humidity is current forecast to be between 30-40% for the upcoming week. The National Weather Service provides a chart (below) that can be used to determine heat index based on air temperature and relative humidity; users are reminded that relative humidity is inversely related to air temperature, so the relative humidity reading in the morning is not a good estimate for the afternoon.



## KEY WEBSITES

[City of Phoenix Office of Heat Response and Mitigation](#)

[City of Phoenix Let's Talk Heat Booklet](#)

[City of Phoenix Heat Relief Supply Request Form for Community Organizations](#)

[National Weather Service Phoenix Forecast Office Heat Page](#)

[Maricopa Association of Governments Heat Relief Network](#)

[Maricopa County Department of Public Health Heat-Health Surveillance Program](#)

[Arizona Department of Health Services Climate and Health Program](#)

Questions about this report may be directed to David Hondula, Director of Heat Response and Mitigation: [david.hondula@phoenix.gov](mailto:david.hondula@phoenix.gov).