

CITY OF PHOENIX WEEKLY HEAT RESPONSE UPDATE

MONDAY, AUGUST 8, 2022

REVIEWING MONDAY, AUGUST 1–SUNDAY, AUGUST 7

Summary

The continuation of a favorable monsoon pattern has kept temperatures generally at or below climatological normals for another week. Only two days out of the past seven had daytime highs exceed expected temperatures for early August. The pace of heat-related deaths and illnesses has continued to decline from a peak in mid-to-late July, but cases continue to accumulate. The Maricopa County Department of Public Health confirmed four additional heat-related deaths, bringing the confirmed count for 2022 to 42. The Phoenix Fire Department responded to 89 heat-related calls last week, including 20 that required advanced life support systems.

Although temperatures have not been as extreme as they were earlier in the summer, they are still sufficiently high to cause public health impacts, especially among the most vulnerable community members. Similar conditions are expected for the upcoming week.

I. RECENT AND YEAR-TO-DATE WEATHER CONDITIONS

A favorable pattern for cloud cover and precipitation remained in place through much of the previous week, resulting in temperatures that were near or below seasonal averages. Elevated atmospheric moisture and cloud cover led to relatively warm nights compared to the daytime conditions, with the exception of nights with rain and thunderstorm activity that dropped lows well below seasonal averages. This summer (April 1 to present) is now approximately 0.5°F hotter than the same period in 2021 and 2.5°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 8-1	105	105.7	-0.7	85	84.6	0.4
Tues 8-2	107	105.6	1.4	89	84.5	4.5
Weds 8-3	101	105.6	-4.6	87	84.5	2.5
Thurs 8-4	95	105.6	-10.6	75	84.4	-9.4
Fri 8-5	102	105.5	-3.5	80	84.3	-4.3
Sat 8-6	108	105.5	2.5	86	84.3	1.7
Sun 8-7	105	105.4	-0.4	88	84.2	3.8

HOT DAYS AND NIGHTS TRACKER

	Year to Date (2022)	Year to Date (2020)	Normal Year to Date
100°F days	74	84	69.4
110°F days	20	32	15.9
85°F nights	32	33	23.7

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

No Excessive Heat Warnings were issued last week. Excessive Heat Warnings have been in effect for 10 days thus far in 2022.

2. NATIONAL WEATHER SERVICE FORECAST

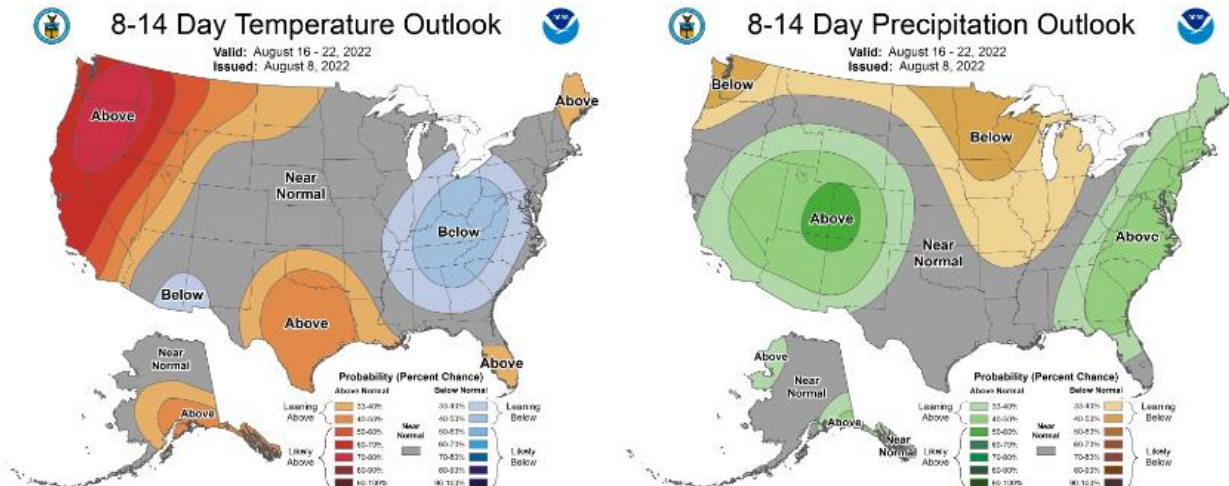
Temperatures are forecast to be at or below seasonal averages for another week, with every day classified as Low HeatRisk per the National Weather Service. The lower temperatures are attributable to higher atmospheric moisture and elevated chances for precipitation and thunderstorms. Rainfall chances are at or above 30% each day of the forecast period.

Mon	Tue	Wed	Thu	Fri	Sat	Sun
103	102	102	105	102	102	102
84	83	84	84	83	82	83

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 transition in the national weather pattern that will bring relief to the middle and eastern part of the country from persistent heat. The odds remain favorable for above-average precipitation activity in central Arizona, and as such, temperatures at or below normal. The normal daily high for the third week of August is 105°F.



3. HEAT-HEALTH DATA

HEAT-RELATED MORTALITY AND MORBIDITY

The Maricopa County Department of Public Health is reporting 42 confirmed heat-associated deaths for 2022, an increase of 4 cases from the previous reporting period. As of their July 30 report, there are 282 additional cases under investigation, an addition of 26 cases from the prior week. MCDPH heat-health reports are available online:

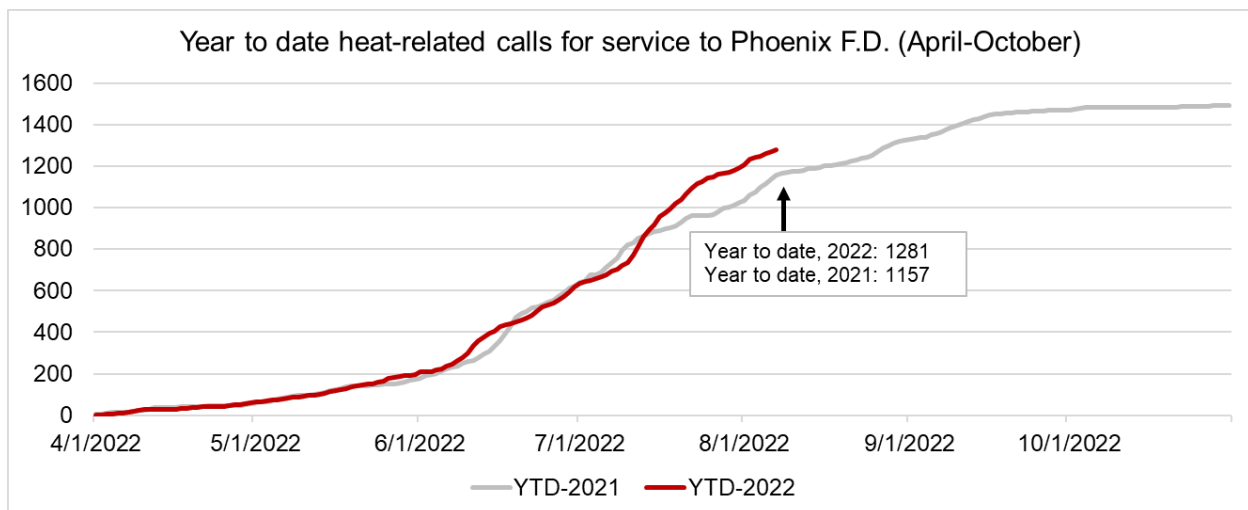
<https://www.maricopa.gov/1858/Heat-Surveillance>.

HEAT-RELATED CALLS FOR SERVICE TO PHOENIX FIRE DEPARTMENT

The Phoenix Fire Department responded to 89 calls for service identified by the dispatcher to be related to heat over the previous week. This was more than the number of calls as the week prior (69 calls, an increase of about 29%). Advanced life support systems were deployed for 20 of the 89 calls. In 2021, the same 7-day period had 134 calls for service related to heat, with significantly higher temperatures (average high temperature of about 110°F in 2021 and 103°F in 2022).

The highest daily number of calls over the previous week occurred on Tuesday, August 2 (high of 107°F), with 28 heat-related calls, which was more than the daily maximum number of calls last week (18 calls). June 19 had the most heat-related calls last year with 43, with a high temperature of 116°F. This year, to date, the highest number of heat-related calls occurred on July 13, with 52 calls and a high temperature of 113°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 11% **higher** than 2021.

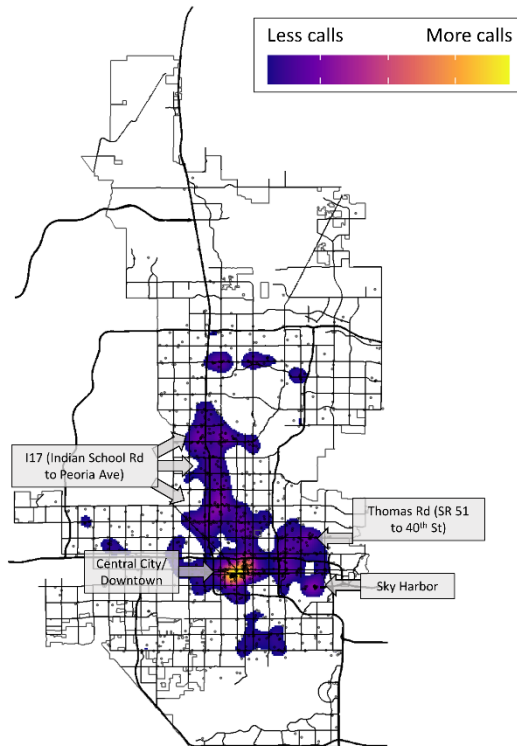


Spatially, since June 1, 2022 to date (through August 7), heat-related calls for service have continued to concentrate in a few areas: the Central City/Downtown area, Sky Harbor airport, and along the I-17 from Indian School Rd to Peoria Ave. Additionally, some more minor areas of concentration are present on Thomas Rd from State Route 51 to 40th St, around 24th 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 included Central City/Downtown, the Loop 2020 & State Route 51, Indian School Rd & Central Ave, and 7th St & Dunlap Ave.

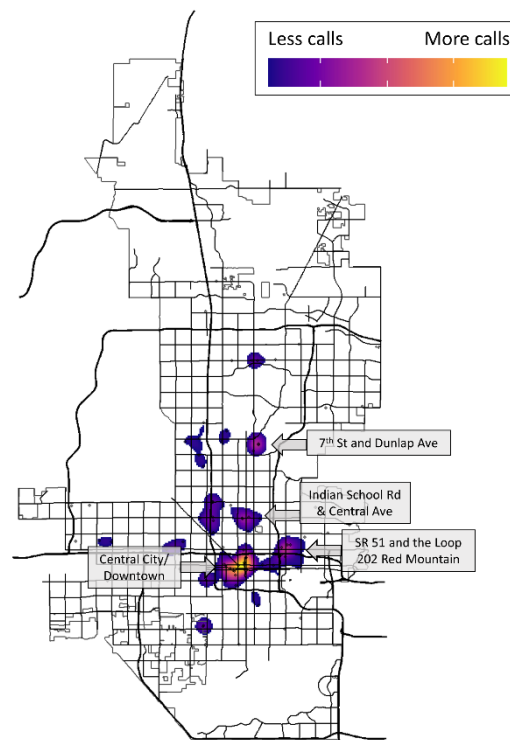
June 1 – August 7

Map of Phoenix Fire Department calls for service related to heat June 1 – August 7, 2022
*Note: Point locations are approximated based on partial addresses or cross streets.



Last week (August 1 – August 7)

Map of Phoenix Fire Department calls for service related to heat August 1 – August 7, 2022
*Note: Point locations are approximated based on partial addresses or cross streets.



A dynamic web map of call density from June 1 to August 7, 2022 is also available online:
<https://asu.maps.arcgis.com/apps/mapviewer/index.html?webmap=e8e87b3c56f4428fb6d74716d5066ba0>

4. COMMUNITY SEARCH DATA

PHOENIX 3-1-1

There were 6 inquires made through Phoenix 3-1-1 for August 1–5 that were related to summer heat, the same call volume as the week prior. Call topics spanned urban forestry, housing repair, and swimming pools.

ARIZONA 2-1-1

There were 316 requests for electrical utility assistance fielded by Arizona 2-1-1 over the previous week in Maricopa County, which was nearly identical to 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 a slight weekly increase in searches related to heat exhaustion and heat stroke, no pattern in searches related to air conditioning, cooling centers, and swimming pools, and no recent activity related to heat warnings.

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 (24 programs)
	Partially operational (2 programs)
	Planning and preparation (5 programs)
	No action to date (0 programs)

City of Phoenix Heat Response Programs and Services – Summer 2022				
Initiative	Target population	Lead depts.	Status	Updates
FOCUS AREA I. Situational awareness at City Hall and real-time response				
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		Fourteenth report distributed August 8.
FOCUS AREA 2. Public engagement, communications, and outreach				
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		55 outreach shifts have been completed, with 46 focusing on street outreach and 9 at City trailheads. More than 2200 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 six weeks of phone calls. Enrollment of additional participants and volunteers continues.
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. 50 organizations have been allocated supplies with more than 38,000 individual items committed.
FOCUS AREA 3. Publicly accessible cool space and drinking water				
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 th Avenue and Jackson on June 11 that will operate through the summer. An upgrade to the cooling system at the new tent was made in late July.
3.4 New shelter at 28 th 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 reviewing public health and safety guidelines for proposed trailers with the health department.
FOCUS AREA 4. Supporting cool and safe home environments				
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.
FOCUS AREA 5. Supporting cool and safe mobility and recreation				
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		Pools have transitioned to weekend-only operation for the month of August, as scheduled.
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.
FOCUS AREA 6. Supporting cool and safe workplaces and schools				
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

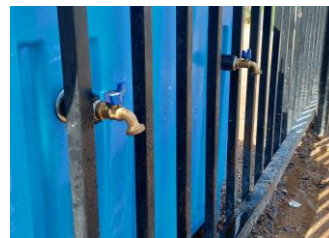


Last week marked the end of service for AmeriCorps Vista Summer Associate Emily Shiels. Emily joined the City of Phoenix team in June to support the Office of Volunteer Programs and Office of Heat Response and Mitigation through the AmeriCorps program. She was a key contributor to the City’s heat relief outreach efforts, helping with planning and logistics and participating in dozens of We’re Cool shifts. She led the development and production of community cooling resource maps for outreach teams, other City departments, and multiple local nonprofits.

During her tenure, Emily engaged with hundreds of Phoenix's most heat vulnerable residents, distributing heat relief supplies, sharing information, and facilitating connections to critical social services. She also helped rescue and find a new home for an overheated and abandoned dog! Emily is returning to Penn State University for the fall semester, where she is pursuing majors in Geography and Global and International Studies. Thank you for your service, Emily!

7. REGIONAL AND NATIONAL HIGHLIGHT

Drinking water accessibility has improved in the vicinity of the Human Services Campus in downtown Phoenix. Two chilled water systems have been installed to help people experiencing homelessness. One system is accessible 24/7 near the Respiro structure, and a second system is available 8am-5pm daily at the shade structure at 12th Avenue and Madison Street. These resources augment the significant supply of bottled water available through the Human Services Campus. Cooling and hydration resources in the vicinity of the Campus are provided through a partnership between the City, County, Human Services Campus, and other local organizations.



8. HEAT SAFETY – DID YOU KNOW?

Anti-platelet medications and beta-receptor blockers were found to increase risk of heat-related heart attack in a new study released this week in *Nature Cardiovascular Research*. The study was based on records of nearly 2,500 non-fatal heart attacks in Germany over a 14-year period. The increased risk was especially prominent among younger patients.

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](#)

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