

CITY OF PHOENIX WEEKLY HEAT RESPONSE UPDATE

MONDAY, AUGUST 22, 2022

REVIEWING MONDAY, AUGUST 15–SUNDAY, AUGUST 21

Summary

Relatively mild conditions continued for another week and current forecasts suggest that the current weather pattern may remain in place for at least another six to seven days. The number of heat-associated deaths reported by the Maricopa County Department of Public Health dropped for a fourth straight week. Heat-related calls to the Phoenix Fire Department also trended downward but remained above last year's pace.

The Office of Heat Response and Mitigation will be approaching individual departments that coordinate heat response programs and services to begin scheduling post-season evaluation interviews in the near future. Completing an evaluation of each of the City's heat response programs and services was one of three goals in the Council-approved 2022 Heat Response Plan.

I. RECENT AND YEAR-TO-DATE WEATHER CONDITIONS

Elevated atmospheric moisture and continued rainfall and storm activity continue to keep temperatures at or below those typically expected for this time of the year. For the second straight week, daily high temperatures only eclipsed climatological normals only once. The third week of August was also relatively cool last year, which resulted in the year-to-date temperature difference versus 2021 trending upwards. This summer (April 1 to present) is now approximately 0.9°F hotter than the same period in 2021. The difference to the long-term average trended down, however, to 1.9°F higher than the climatological normal. The number of 100°F and 110°F days this year remains above the long-term average, but only slightly.

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
	102	105.2	-3.2	79	83.7	-4.7
	105	105.2	-0.2	85	83.7	1.3
	106	105.1	0.9	84	83.6	0.4
	105	105.1	-0.1	82	83.5	-1.5
	99	105.1	-6.1	78	83.5	-5.5
	97	105	-8	79	83.4	-4.4
	97	105	-8	78	83.3	-5.3

HOT DAYS AND NIGHTS TRACKER

	Year to Date (2022)	Year to Date (2020)	Normal Year to Date
100°F days	84	98	82.0
110°F days	20	44	18.4
85°F nights	34	43	29.9

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.

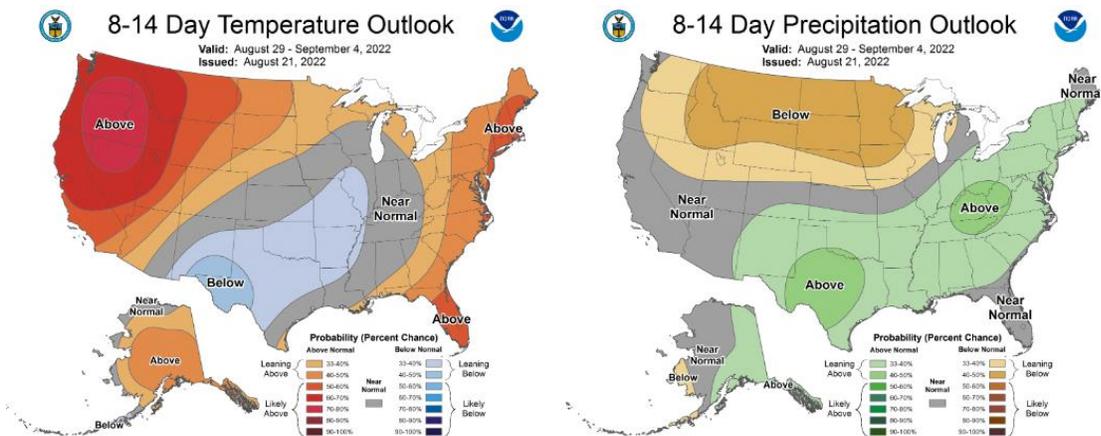
2. NATIONAL WEATHER SERVICE FORECAST

Seasonally mild temperatures are forecast for the upcoming week with expected high temperatures in the low 100s. Every day in the forecast period is classified as Low HeatRisk per the National Weather Service. Conditions remain favorable for occasional storm and precipitation activity.

Mon	Tue	Wed	Thu	Fri	Sat	Sun
98	102	100	100	102	101	101
83	82	80	83	81	80	81

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 suggests a return to seasonally typical temperatures and precipitation activity, following a period that had elevated rainfall and lower temperatures. The normal daily high for the fourth week of August is 104°F.



3. HEAT-HEALTH DATA

HEAT-RELATED MORTALITY AND MORBIDITY

The Maricopa County Department of Public Health is reporting 66 confirmed heat-associated deaths for 2022, an increase of 22 cases from the previous reporting period. As of their August 13 report, there are 268 additional cases under investigation, which is 19 cases lower than the week before. In each of the past two weeks, fewer than 10 new cases have been added to the under investigation list. All MCDPH heat-health reports are available online:

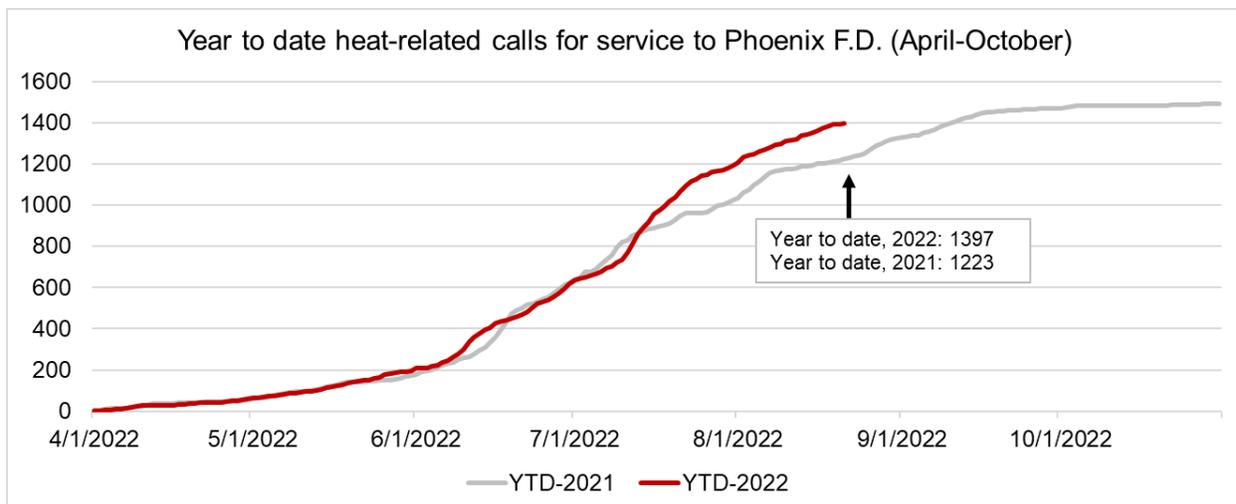
<https://www.maricopa.gov/1858/Heat-Surveillance>.

HEAT-RELATED CALLS FOR SERVICE TO PHOENIX FIRE DEPARTMENT

The Phoenix Fire Department responded to 55 calls for service identified by the dispatcher to be related to heat over the previous week. This was less than the number of calls as the week prior (61 calls, a decrease of about 11%). Advanced life support systems were deployed for 20 of the 55 calls. In 2021, the same 7-day period had 35 calls for service related to heat, with somewhat lower temperatures (average high temperature of about 98°F in 2021 and 102°F in 2022).

The highest daily number of calls over the previous week occurred on Thursday, August 18 (high of 105°F), with 12 heat-related calls, which was less than the daily maximum number of calls last week (21 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 14% **higher** than 2021.

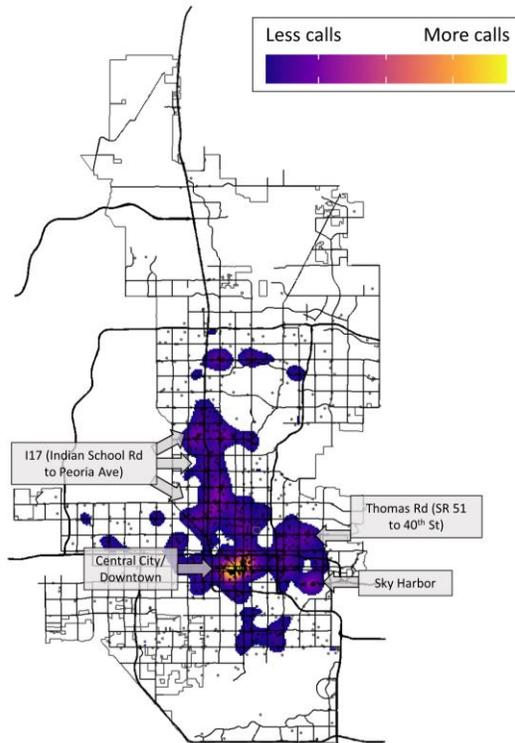


Spatially, since June 1, 2022 to date (through August 21), heat-related calls for service have continued to concentrate in a few areas: the Central City/Downtown area, Sky Harbor airport, and along the I-17 from Indian School Rd to Peoria Ave. Additionally, some more minor areas of concentration are 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, calls were highly concentrated in the Central City/Downtown region, especially east of 7th Ave and north of Jefferson St. Additionally, a few hotspots occurred this past week near I-17 & Dunlap Ave (Metro Parkway), Indian School Rd & 51st Ave, and north of the I-10 between 35th Ave and 43rd Ave.

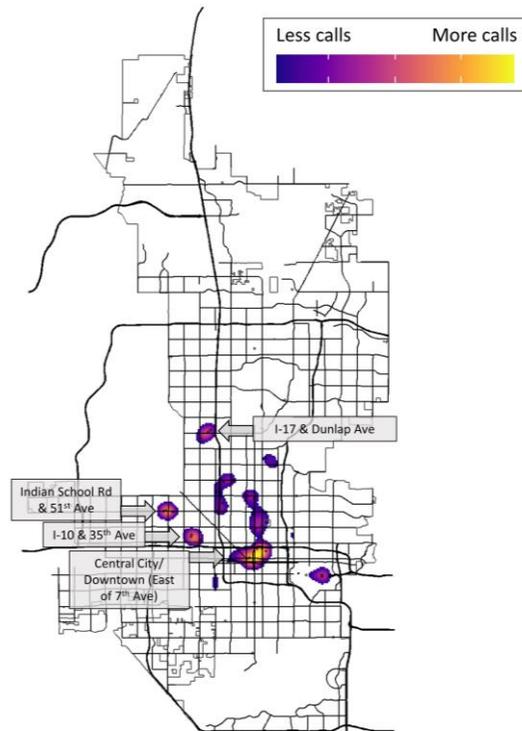
June 1 – August 21

Map of Phoenix Fire Department calls for service related to heat June 1 – August 21, 2022
*Note: Point locations are approximated based on partial addresses or cross streets.



Last week (August 15 – August 21)

Map of Phoenix Fire Department calls for service related to heat August 15 – August 21, 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 21, 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 4 inquires made through Phoenix 3-1-1 for August 15–19 that were related to summer heat, a decrease of four calls from the week prior. Two calls were related to swimming pools and two were related to tree maintenance.

ARIZONA 2-1-1

There were 296 requests for electrical utility assistance fielded by Arizona 2-1-1 over the previous week in Maricopa County, which was an 18% 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 later this summer. Publicly available Google Trends data for Arizona showed that searches for cooling centers, heat exhaustion, heat stroke, air conditioning, swimming pools, and heat warnings all trended downward or remained low over the past week.

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		Sixteenth report distributed August 22.
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		62 outreach shifts have been completed, with 52 focusing on street outreach and 10 at City trailheads. More than 2600 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		55 City facilities are currently participating as cooling centers or hydration stations. One library location has been removed from the network for facility repairs. 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; 76 new shade structures installed thus far in calendar year 2022.
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



The City’s We’re Cool heat relief outreach effort completed its 60th shift of the summer last week. Street outreach shifts take place on Tuesday and Thursday mornings and afternoons at locations throughout the City with known communities of people experiencing homelessness. On each shift, staff and volunteers distribute heat relief supplies, share information about community cooling resources, and strive to connect people to social service programs for food, hygiene, income, and shelter. More than 2,600 engagements have been recorded through this initiative so far in 2022 with nearly 8,000 items distributed. Staff from all departments are welcome to participate and can sign up by e-mailing volunteer@phoenix.gov.

7. REGIONAL AND NATIONAL HIGHLIGHT



Arizona State University researchers have recently been awarded a \$2M grant from the National Science Foundation to improve our understanding of human heat stress. The five-year project funded by the Directorate for Engineering is titled “Dynamic Sensing and Computational Approaches to Assess Individual-level Heat Risk Across Diverse Populations.” A central component of the research is the use of a thermal manikin that mimics the human body system’s performance in hot weather. The project team, led by engineering professor Konrad Rykaczewski, has a robust public and education plan to accompany the research activities, including engagement of communities underrepresented in science and engineering. More information is available online: https://www.nsf.gov/awardsearch/showAward?AWD_ID=2152468 .

8. HEAT SAFETY – DID YOU KNOW?

Both major electric utilities serving the City of Phoenix offer a wide range of assistance programs to help customers manage their accounts and the cost of electricity. Among their many programs, SRP and APS both offer “Safety Net” programs that provide copies of monthly bills and other important notifications to trusted friends or relatives. These initiatives can help customers keep accounts current and avoid disconnection. More information about the programs is available on each company’s website.

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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