National Weather Service Medford

2022: July Climate Summary



*These data are preliminary and have not undergone final QC by NCEI. Therefore, these data are subject to revision. Final and certified climate data can be accessed at the National Centers for Environmental Information (NCEI).



July 2022 Weather Review

The cooler and occasionally wet pattern from the end of June continued into the first half of July. In fact, something that rarely occurs in this area happened this year: there was measurable rainfall (defined as at least 0.01" or greater) over the Fourth of July holiday across much of the region. In fact, for many of our climate sites, this has only happened a handful of times over the course of each site's period of record (POR). At Medford, for example, this was only the 6th time in the POR that it rained on July 4th, and records go back to 1911. For Klamath Falls, it was also the 6th time in the POR that it rained on July 4th. Not only that, for the places that received rain, the amount that fell was notable as well. Some sites set new daily records while others received their 2nd or 3rd greatest amounts on July 4th. Cooler and active weather continued the day after with more beneficial precipitation falling across portions of the area. Precipitation came to an end around the 6th, but cooler than normal temperatures continued through the 8th.

The pattern began to transition to a more summer like pattern around the 10th with low pressure settling over the Gulf of Alaska and high pressure establishing itself over the Four Corners Region of the SW US. This put the region under dry and warm southwest flow. With the exception of a few days of hot temperatures, overall temperatures hovered near seasonal normals through much of the month. A weak trough passed through the Pacific Northwest around the 16th-18th and again around the 22nd and 23rd, and although these troughs were dry, they did bring a brief period of cooler than normal temperatures. As is typical for this time of year, with no precipitation and continued dry southwesterly flow, fuel conditions ripened for fire season. Fortunately near normal temperatures during this time did not exaggerate the drying trend, and resulted in a more normal dive into fire season. That would change, however, as high pressure amplified over the region during the last week of the month and brought a prolonged period of very hot temperatures to the region.

Strong high pressure brought the first heat wave of the season to the region, and numerous records were broken, tied and challenged including all time highs, daily high maximums, daily high minimums, and number of days at or above 100 degrees. In fact, for the second year in a row, the Medford Airport challenged the record for the warmest all time high temperature. A high temperatures of 114 degrees was recorded on July 29th and this ties the record for the second warmest all time high temperature, also set on August 8th, 1981. This is just one degree shy of the all time high temperature record of 115 degrees last set on June 28th, 2021 but also on July 20th of 1946. This heat wave had the potential to challenge the all time stretch of consecutive days of at or above 100 degrees in Medford, which still stands at 10 days set in 1967 and 1962. However, the McKinney wildfire ignited in northern Siskiyou County on the afternoon of the 30th. The thick smoke from this fire stretched northward and limited how hot afternoon temperatures reached that day. As such, the Medford Airport only saw six consecutive days of high temperatures at or above 100 degrees. For areas that weren't impacted by smoke, hot temperatures continued through the end of the month. As is typical, thunderstorms followed on the tail end of the heat wave, with over 500 strikes during the last four days of the month.

Despite the cooler start to the month, the very hot temperatures and warm overnight lows at the end of the month resulted in above normal temperatures across the region for the month of July. The beneficial rainfall at the beginning of the month, however, resulted in above to near normal precipitation amounts for areas roughly west of highway 97, with below normal values for areas east of highway 97.



July 2022 Observed Temperatures

Depa

rture







Average Temperatures

	Average (°F)	Departure from Normal	Average Max (°F)	Departure from Normal	Average Min (°F)	Departure from Normal
North Bend	60.3	0.5°	66.3	0.2°	54.3	0.7°
Roseburg	73.2	1.6°	87.2	1.4°	59.2	1.8°
Medford	78.3	3.2°	94.0	2.4°	62.6	4.0°
Klamath Falls	70.0	2.9°	90.3	4.0 °	49.6	1.8°
Montague, CA	77.8	3.8°	97.1	3.7°	58.6	4.1°
Mt. Shasta City, CA	72.3	3.9°	91.4	6.2°	53.1	1.4°
Alturas, CA	69.5	1.3°	92.7	3.6°	46.2	-1.0°



Monthly Max & Min Temperatures

	Max (°F)	Date(s)	Min (°F)	Date(s)
North Bend		11 th	49°	25 th
Roseburg	103°	25 th	52°	18 th
Medford	114°	29 th	54°	23 rd
Klamath Falls	103°	29 th	40°	7 th
Montague, CA	111°	28 th & 29 th	51°	3 rd
Mt. Shasta City, CA	106°	29 th	47°	1 st & 3 rd
Alturas, CA	104°	26 th	38°	2 nd



NATIONAL WEATHER SERVICE

Medford, Oregon

Records Roundup

Time frame examined: Mon 7/25 - Fri 7-29, 2022

<u>Montague</u>

Date/ValuePrior Record7-25/106°F103°F/20137-26/107°F104°F/20067-27/110°F102°F/20167-28/111°F105°F/20097-29/111°F106°F/2016

POR: 07/1948 - PRESENT MISSING: 08-09/1952 & 02/1953-06/2000

ALL TIME RECORD HIGH SET 3 TIMES (27TH - 29TH). OLD RECORD=109°F SET ON JULY 11TH, 2002

<u>Alturas</u>

Date/Value	Prior Record				
7-25 / 100°F	Ties 2013				
7-26 / 104°F	100°F / 1964				
7-27 / 102°F	101°F / 1975				
POR: 05/193	5 - PRESENT				
7/25 - 7-29	9 = SECOND				
LONGEST RUN OF CONSECUTIVE DAYS WITH					

HIGH TEMPERATURES

>=100°F

<u>Mt Shasta City</u>

Date/Value	Prior Record
7-25 / 100°F	99°F / 2013
7-27 / 100°F	99°F/2016
7-28 / 105°F	102°F / 2016
7-29 / 106°F	102°F / 2016

POR: 04/1948 - PRESENT

ALL TIME RECORD HIGH WAS TIED (28TH) & THEN BROKEN (29TH). OLD RECORD=105°F SET ON AUGUST 7TH, 1981.

Medford

Date/Value	Prior Record
7-25 / 107°F	Ties 1988
7-28 / 111°F	108°F / 2009
7-29 / 114°F	109°F / 2009

POR: 03/1911 - PRESENT

CAME WITHIN ONE DEGREE OF TYING ALL TIME RECORD HIGH (29TH) OF 115°F SET ON JUNE 28TH, 2021 & JULY 20TH, 1946.

When looking at record setting events, it's important to consider the length and completeness of the site's period of record (POR). For example, a site may have records back to the early 1900's, but if there is a significant portion of the record missing, it's possible that the POR is not encompassing another significant event that may have surpassed the event in question. Therefore, "record setting" should be considered relative to the completeness/length of POR.



Late July 2022 Heatwave High Temperature Records

	Date	Record High	Old Record/Year
Mt Shasta City	24 th	98°F	Ties w/2010
	25 th	100°F	99°F / 2013
	27 th	100°F	99°F / 2016
	28 th	105°F	102°F / 2016
	29 th	106°F	102°F / 2016
	30 th	100°F	99°F / 2015
Montague	25 th	106°F	103°F / 2013
	26 th	107°F	104°F / 2006
	27 th	110°F	102°F / 2016
	28 th	111°F	105°F / 2009
	29 th	111°F	106°F / 2016
	30 th	110°F	107°F / 2003

	Date	Record High	Old Record/Year
Roseburg	25 th	103°F	101°F / 2013
Medford	25 th	107°F	Ties w/1988
	28 th	111°F	108°F / 2009
	29 th	114°F	109°F / 2009
Klamath Falls	27 th	101°F	Ties w/1939
	28 th	102°F	101°F / 1911
	29 th	103°F	98°F / 2016
	30 th	102°F	101°F / 1988
	31 st	99°F	Ties w/1922
Alturas	25 th	100°F	Ties w/2013
	26 th	104°F	100°F / 1964
	27 th	102°F	101°F / 1975



July 2022 Observed Precipitation

RECORD

WETTEST

MUCH ABOVE NORMAL

Top 10%

ABOVE NORMAL Top 33%

NEAR

NORMAL

BELOW

MUCH BELOW NORMAL Bottom 10%

NORMAL

Bottom 33%

RECORD DRIEST

105°W

110°W





Precipitation



Record Precipitation

Date/Amount		Old Record/Year
Mt Shasta City	3 rd / 0.07"	Ties w/ 1948
Medford	4 th / 0.26″	0.19″ / 1948

	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
North Bend	0.15″	-0.20″	0.07″	4 th – 5 th
Roseburg	0.25″	-0.01″	0.23″	4 th – 5 th
Medford	0.40″	0.16″	o.36″	4 th – 5 th
Klamath Falls	0.26″	0.04″	0.11″	2 nd – 3 rd
Montague, CA	0.42″	0.26″	0.27″	2 nd
Mt. Shasta City, CA	0.32″	0.04″	0.22″	4 th - 5 th
Alturas, CA	0.00″	-0.29″	0.00″	N/A





Water Year Status (as of August 12th)

V

Inches

.00

80

Climate Sites Water Year Precipitation (Since Oct 1) and Percent of Normal as of 134AM \equiv AUG12







Reservoir Status

Data courtesy of <u>US Army Corps of Engineers</u>



Data courtesy of <u>Bureau of Reclamation</u>

US Bureau of Reclamation, Pacific Northwest Region Bear Creek and Little Butte Creek Basins



PROVISIONAL DATA - SUBJECT TO CHANGE!

percent full = (current storage - minimum conservation storage) / (maximum conservation storage - minimum conservation storage) percent above water control diagram = (current storage - WCD storage) / (maximum conservation storage - minimum conservation storage -



Reservoir Status

Klamath River Basin. Data courtesy of Bureau of Reclamation Bureau of Reclamation, Mid Pacific Region Major Storage Reservoirs in the Klamath River Basin Fri Aug 12 2022 09:48:31 GMT-0700 (Pacific Daylight Time) Wood River 311 cfs Sycan River (OWRD) Cherry Creek 8.18 cfs 062 °F 060 °F Sprague River 219 66 NF Sprague River (OWRD) Williamson River 453 cfs Sprague River (OWRD) SF Sprague River nr Bly (OWR Upper Klamath 4139.35 feet 40% full 227484 / 561838 AF A Canal 113.61 cfs Link River 1070 cfs HRPO 4098.33 ft Gerber Reservoir 4799.06 feet LRD 4 cfs Spencer Creek (OWRD) 63 LVNO missing Klamath River at Keno 663 cfs Miller Hill/P.P. missing cfs 064 °F 1% full North Canal at Hww 97 65.6 cfs 1736 / 94270 AF Klamath Straits 6.81 cfs West Canal missing c Malone Reservoir -1.08 ft Ady Canal at Hwy 97 8.85 cfs Lost River 0 cfs Tule Lake Clear Lake West Lobe 4520.67 feet Ady Canal above LKNWR 7.01 cfs Klamath River below IGD 881 cfs Willow Greek 0.4 cfs 10% full 41889 / 410000 AF



CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS

Midnight - August 11, 2022



Northern California. California Data Exchange Center

PROVISIONAL DATA - SUBJECT TO CHANGE!



10A

Image: NPS

	Average Max Temp (°F)	Average Min Temp (°F)	Total Precipitation	Total Snowfall	Snow Depth as of: 7/31/21	Highest Max/ Lowest Min
July	72.0°	47·3°	0.42″	0.0″	٥"	86° on 30 th & 31 st / 36° on 3 rd
Normal (1991-2020)	68.9°	41.4°	0.80″	0.0″	o″	N/A

Drought Monitor (Current) & Outlook (August)







Looking Ahead: Normals for August (1991-2020)

August is typically one of the two driest dry months across the forecast area, but is not as dry as July for areas west from the coastal mountain ranges westward. Lightning and fire activity usually peaks in August. High temperatures are typically at their warmest of the year, and are generally very similar to July's normals. Valley high temperatures are typically in the 80s to lower 90s. Average minimum temperatures are slightly cooler than those of July as nights become increasingly longer. Average minimum temperatures are mostly in the 40s for east side valleys, and in the 40s and 50s for west side valleys. Most of the forecast area usually receives an inch or less of precipitation. Exceptions include portions of the coastal mountain ranges and the higher terrain of eastern Douglas county.





*A note about Period of Record (POR)

When looking at record setting events, it's important to consider the length and completeness of the site's period of record (POR). For example, a site might have records dating back to the early 1900's, but if there is a significant portion of the record missing, it's possible that the POR is not encompassing another significant event that might have surpassed the event in question. Therefore, "record setting" should be considered relative to the completeness/length of POR. To help keep records in context, the POR for each climate site is listed below:

- <u>North Bend</u>: 01/1902 Present
- <u>Roseburg</u>: 04/1900 Present
 Missing:
 - ▶ 05/1900-01/1901
 - ▶ 03/1901-06/1902
 - ▶ 08/1902-12/1930
 - ▶ 10/1965-06/1997
- <u>Medford</u>: 03/11/1911 Present
- <u>Klamath Falls</u>: 12/1897 Present

- Montague, CA: 07/1948 Present
 Missing:
 - ▶ 08-09/1952
 - ▶ 02/1953-06/2000
- <u>Mount Shasta City, CA</u>: 04/1948 Present
- <u>Alturas, CA</u>: 05/1935 Present