

National Weather Service Medford

July 2017 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 2017 Weather Review

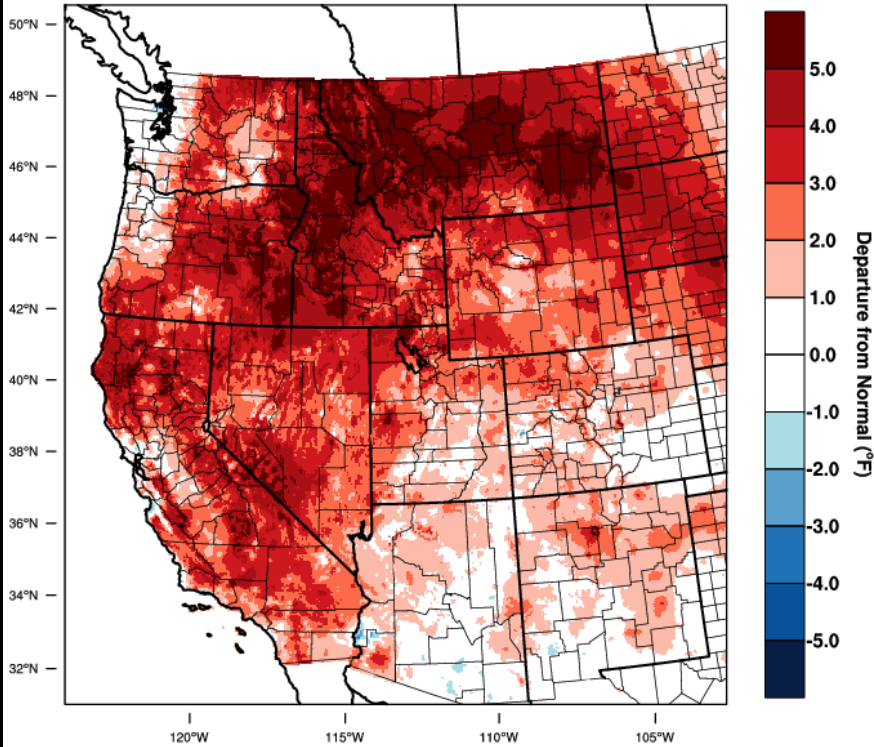
Thanks to high pressure dominating the weather, July 2017 was fairly quiet for most of the month with above average temperatures being the main story. Unlike June, which was a mixed bag of cool and warm temperatures with widespread wetting rains, July stayed on the warm side with mainly dry conditions. In fact, many locations west of the Cascades and away from the immediate coast, did not report any precipitation during the whole month. Any reported precipitation along the coast was mostly due to moisture being wrung out of the marine layer.

Towards the end of the month, a low pressure system developed off the coast of northern California and lingered there for roughly four days. This synoptic pattern, high pressure over the Great Basin with a low pressure offshore, is the classic set up for a thunderstorm outbreak over southern Oregon and far northern California. Upper level flow pumped a very moist and unstable air mass into the area and the result was over 5,000 lightning strikes from a thunderstorm outbreak during the last week of July. The focus of these thunderstorms was mainly along and east of the Cascades and south of the Siskiyou. About 95 strikes were recorded in far northeastern Jackson and eastern Douglas counties. These thunderstorms brought record setting precipitation with them. Klamath Falls recorded almost an inch of rain in just one day! Although these storms had significant rainfall with them, multiple wildfires resulted from this thunderstorm outbreak.

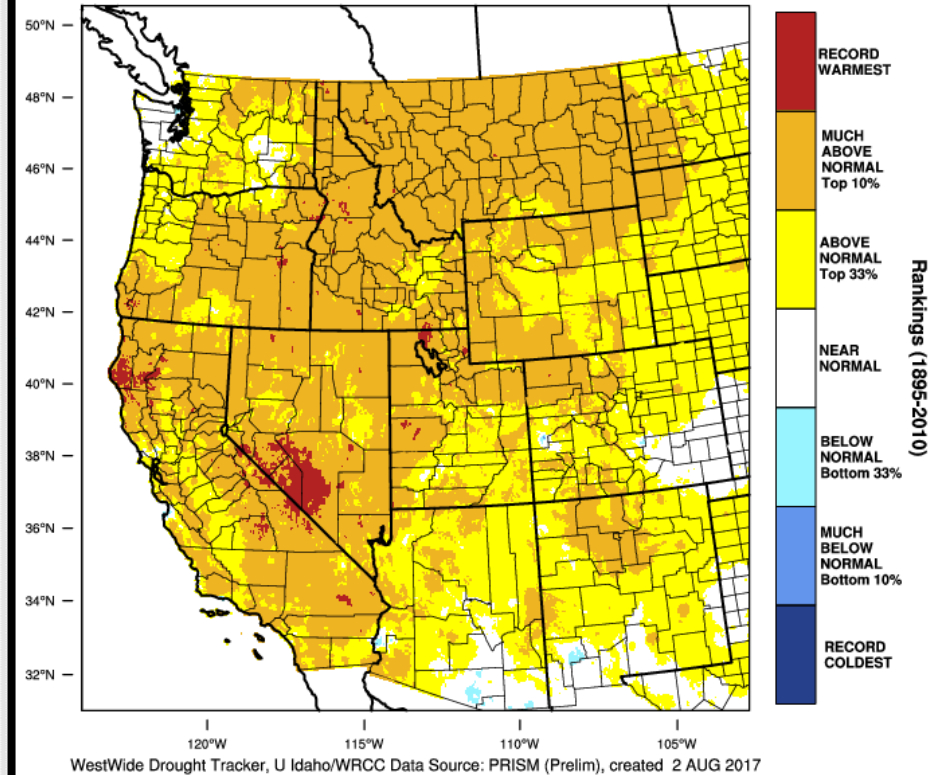
Once the thunderstorms were finished, July ended with a warming trend during the last few days as a strengthening high pressure resumed control. A building heat wave brought triple digit temperatures for the valleys west of the Cascades and temperatures east of the Cascades were close to the century mark by the end of July. An extended period of dangerously hot temperatures was expected to continue into the first week of August, where all-time record high temperatures would be challenged.

July 2017 Observed Temperatures

Western United States - Mean Temperature
July 2017 Departure from 1981-2010 Normal



Western United States - Mean Temperature
July 2017 Percentile



Average Temperatures

| | <i>Average (°F)</i> | <i>Departure from Normal</i> | <i>Average Max (°F)</i> | <i>Departure from Normal</i> | <i>Average Min (°F)</i> | <i>Departure from Normal</i> |
|-----------------------------------|-------------------------|--------------------------------------|-----------------------------|--------------------------------------|-----------------------------|--------------------------------------|
| <i>North Bend</i> | 59.2 | +0.6° | 65.8 | +1.3° | 52.5 | -0.3° |
| <i>Roseburg</i> | 72.4 | +2.1° | 87.6 | +3.3° | 57.3 | +1.1° |
| <i>Medford</i> | 78.3 | +4.2° | 94.8 | +4.1° | 61.9 | +4.5° |
| <i>Klamath Falls</i> | 69.3 | +3.3° | 89.2 | +5.3° | 49.5 | +1.3° |
| <i>Montague, CA</i> | 75.6 | +2.9° | 95.6 | +4.3° | 55.6 | +1.5° |
| <i>Mt. Shasta City, CA</i> | 72.4 | +4.5° | 91.6 | +5.8° | 53.2 | +3.2° |
| <i>Alturas, CA</i> | 70.9 | +4.5° | 92.8 | +4.8° | 49.0 | +4.2° |

Monthly Max & Min Temperatures

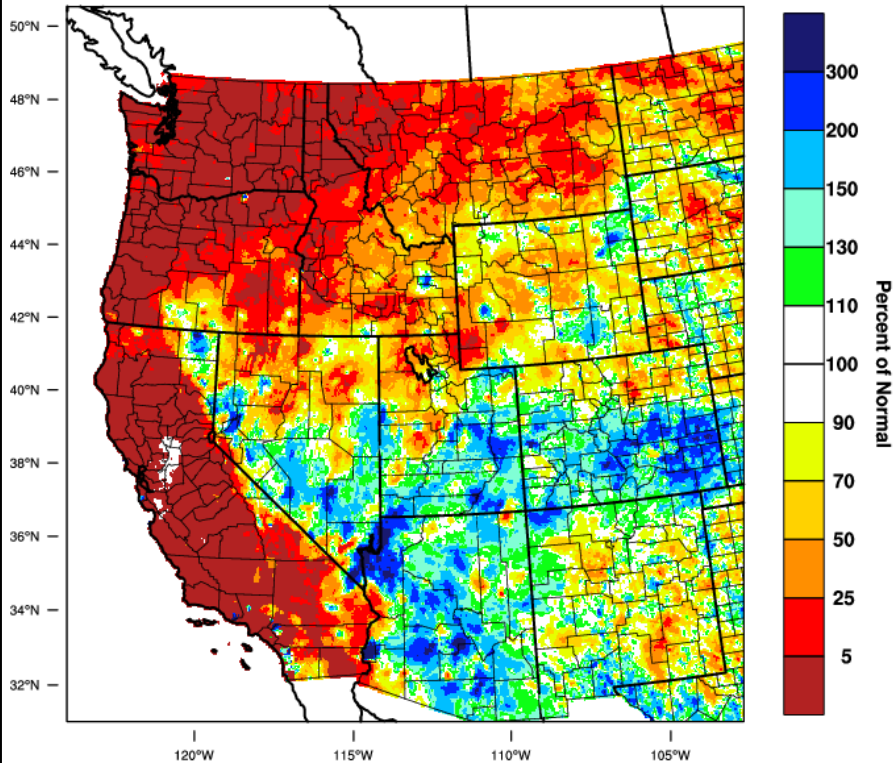
| | <i>Max (°F)</i> | <i>Date(s)</i> | <i>Min (°F)</i> | <i>Date(s)</i> |
|----------------------------|-----------------|--|-----------------|--|
| <i>North Bend</i> | <i>72°</i> | <i>22nd</i> | <i>48°</i> | <i>11th</i> |
| <i>Roseburg</i> | <i>97°</i> | <i>31st</i> | <i>51°</i> | <i>19th</i> |
| <i>Medford</i> | <i>104°</i> | <i>31st</i> | <i>55°</i> | <i>17th</i> |
| <i>Klamath Falls</i> | <i>97°</i> | <i>31st</i> | <i>44°</i> | <i>18th & 20th</i> |
| <i>Montague, CA</i> | <i>103°</i> | <i>31st</i> | <i>48°</i> | <i>2nd</i> |
| <i>Mt. Shasta City, CA</i> | <i>98°</i> | <i>31st</i> | <i>46°</i> | <i>19th</i> |
| <i>Alturas, CA</i> | <i>100°</i> | <i>23rd & 31st</i> | <i>39°</i> | <i>19th</i> |

**Record
Temperatures**

| | <i>Record High / Date</i> | <i>Old Record/Year</i> |
|----------------|-------------------------------|------------------------|
| Mt Shasta City | 97° / 8 th | 96° / 1952 |

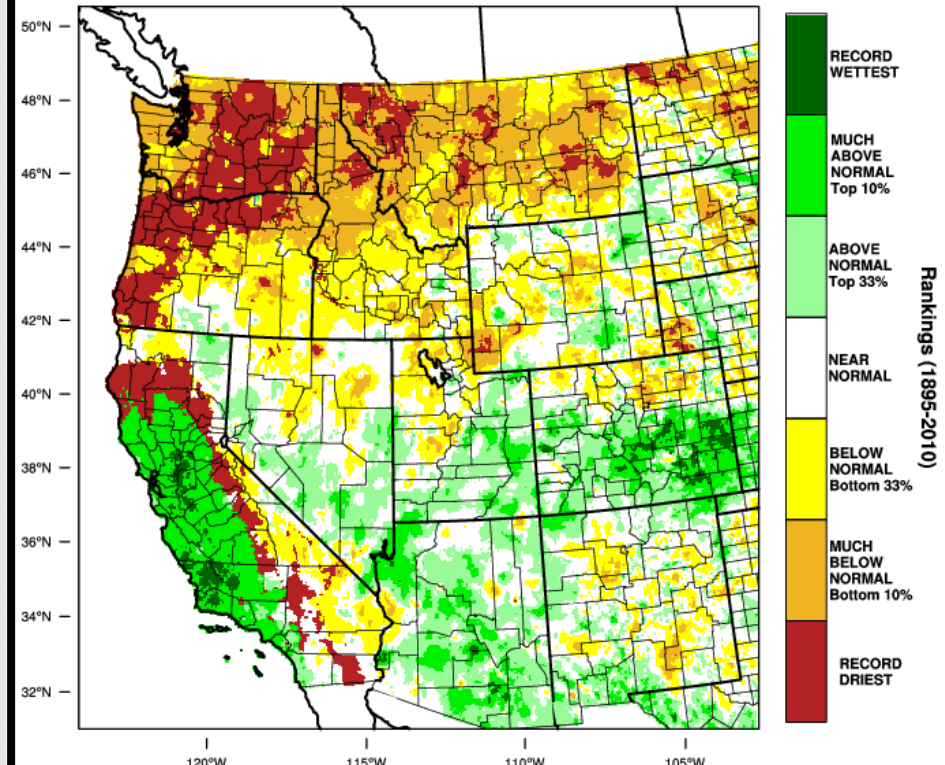
July 2017 Observed Precipitation

Western United States - Precipitation
July 2017 Percent of 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 AUG 2017

Western United States - Precipitation
July 2017 Percentile



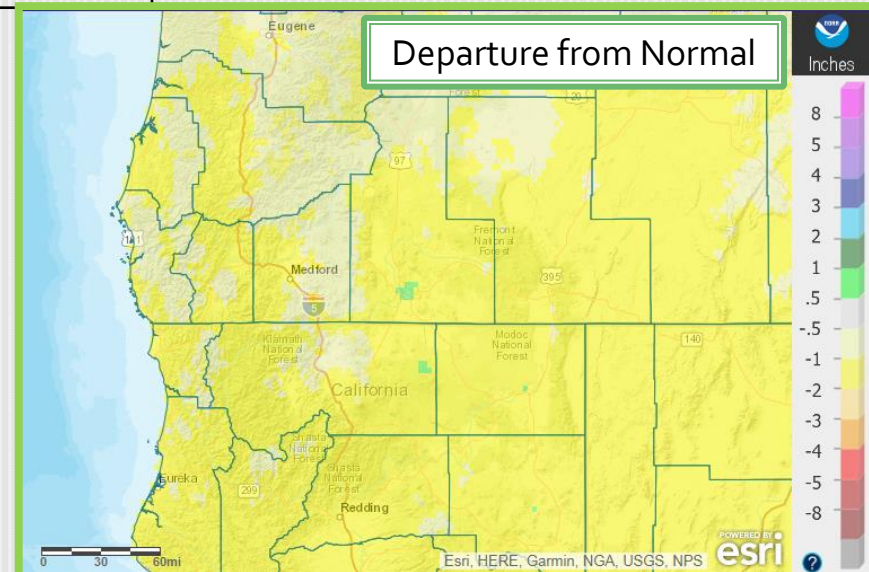
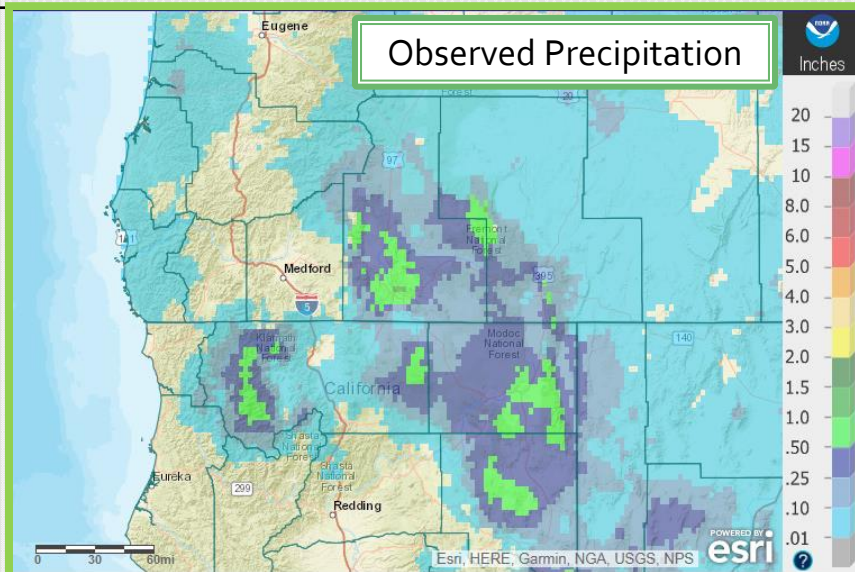
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 2 AUG 2017

July Precipitation

| | Total | Departure from Normal | Greatest 24-hr Total | Date(s) |
|----------------------------|-------|-----------------------|----------------------|------------------|
| North Bend | 0.05" | -0.45" | 0.04" | 1 st |
| Roseburg | 0.00" | -0.42" | 0.00" | N/A |
| Medford | Trace | -0.28" | Trace | 24 th |
| Klamath Falls | 0.98" | +0.50" | 0.98" | 24 th |
| Montague, CA | Trace | -0.45" | Trace | 24 th |
| Mt. Shasta City, CA | 0.00" | -0.39" | 0.00" | N/A |
| Alturas, CA | 0.82" | +0.48" | 0.62" | 25 th |

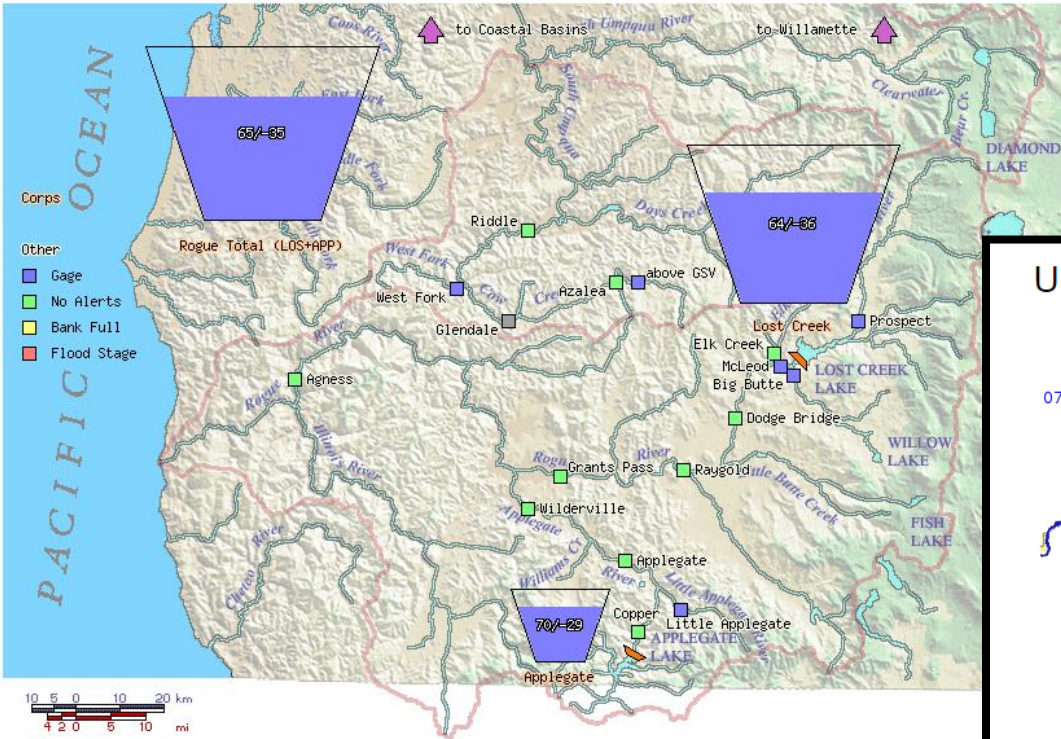
Record Daily Precipitation

| | New Record | Date | Old Record | Year |
|----------------------|------------|------------------|------------|------|
| Klamath Falls | 0.98" | 24 th | 0.14" | 2003 |
| Alturas | 0.15" | 24 th | 0.04" | 1991 |
| Alturas | 0.62" | 25 th | 0.16" | 1944 |



Reservoir Status

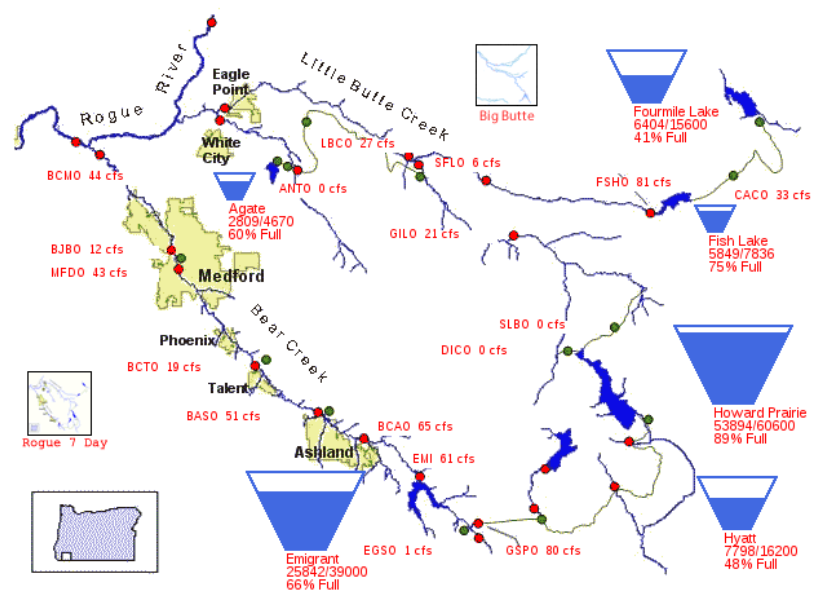
Rogue Basin Teacup Diagram



Data below courtesy of [Bureau of Reclamation](#)

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

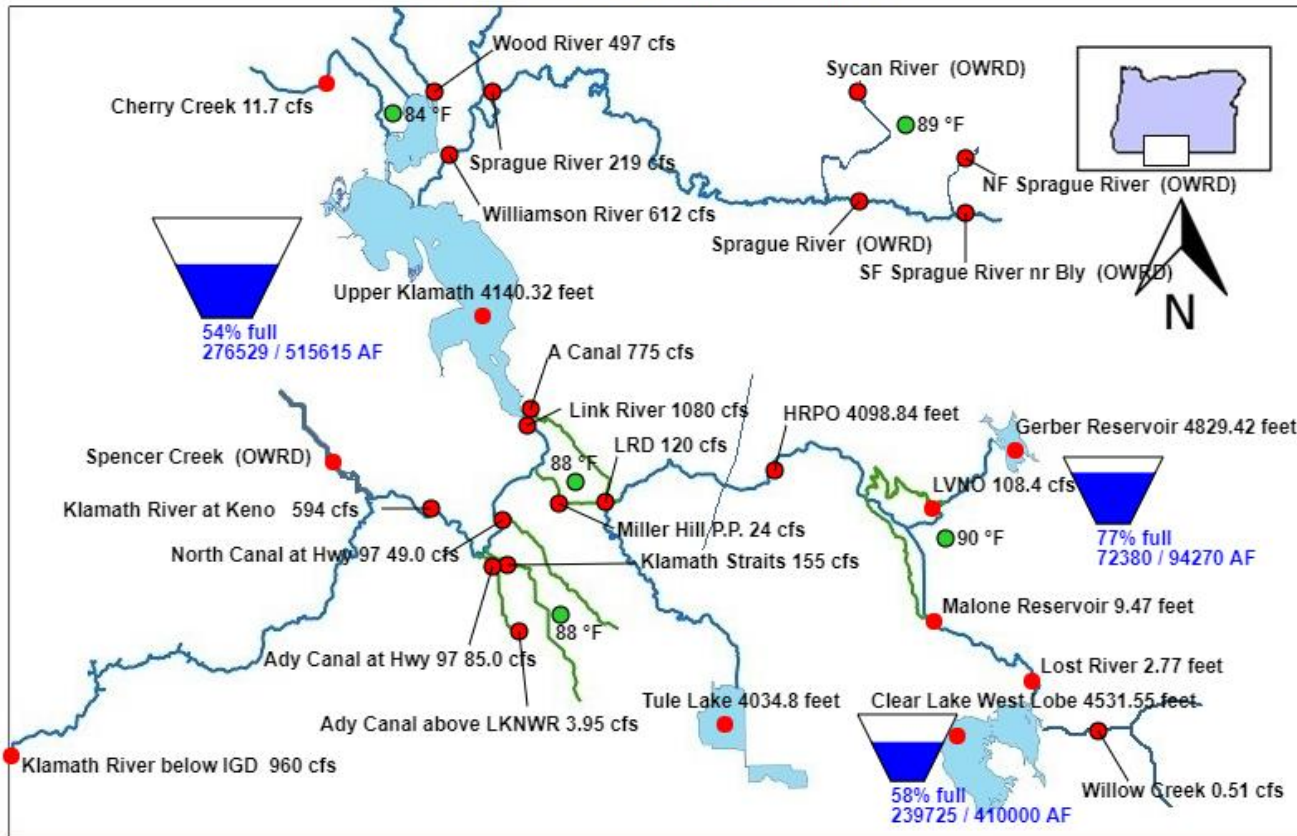
07/31/2017



Data above courtesy of [US Army Corps of Engineers](#)

Reservoir Status

Tue Aug 01 2017 12:31:27 GMT-0700 (Pacific Daylight Time)



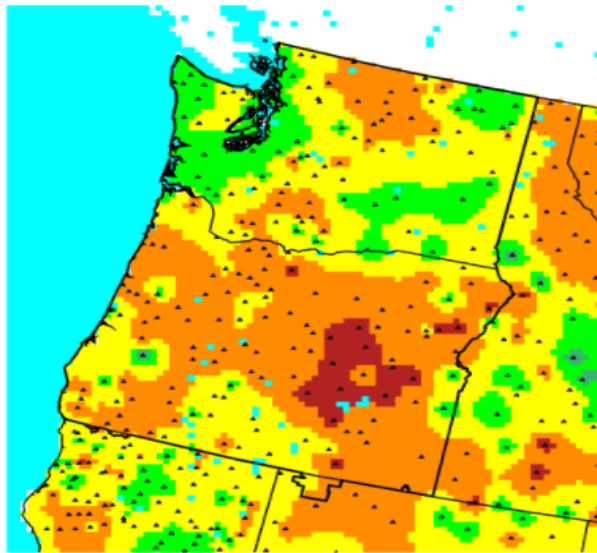
PROVISIONAL DATA - SUBJECT TO CHANGE!

Klamath River Basin. Data courtesy of [Bureau of Reclamation](#)

Fuel & Fire Potential Status as of August 3rd, 2017

While a round of monsoonal thunderstorms in late July brought substantial rainfall that broke daily records at some locations east of the Cascades, it also started a number of fires that are now burning across the area. The stretch of prolonged above normal temperatures since mid-June continued through most of July, and areas west of the Cascades received little or no rainfall during the month. The combination of the prolonged above normal temperatures and substantial fine fuels across the area has led to a volatile fuels situation. Record temperatures during the first three days of August, which were near all time record highs, has left the area primed for lightning ignited fires for the foreseeable future.

Northwest Observed Fire Danger Class: 03-Aug-17



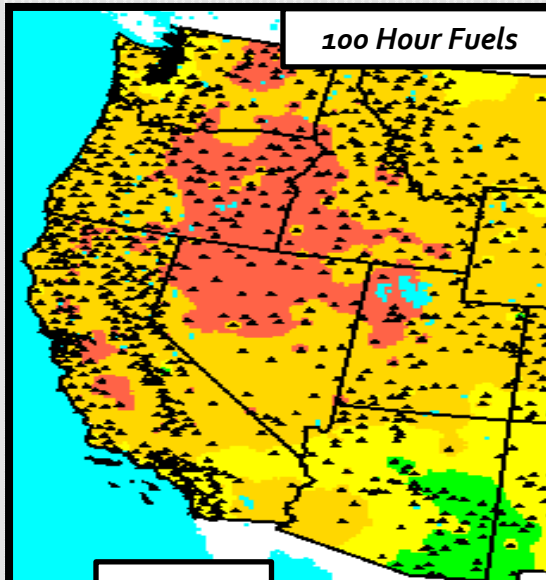
FireLab



WFAS-MAPS National Interagency Fire Center

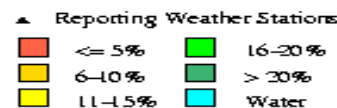


100 Hour Fuels

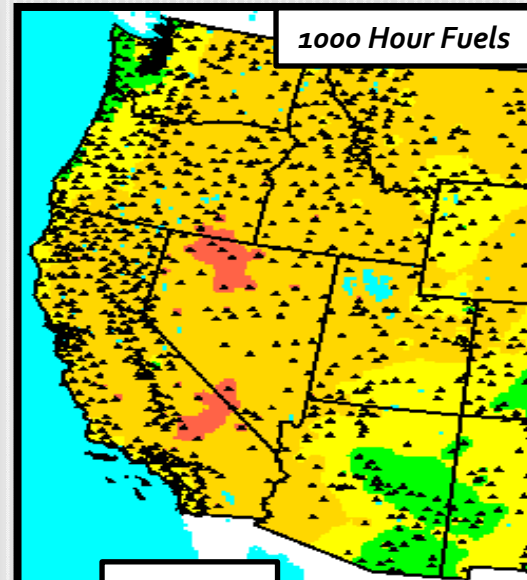


03-Aug-17

LEGEND

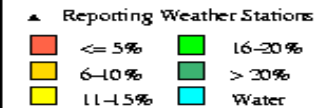


1000 Hour Fuels



03-Aug-17

LEGEND

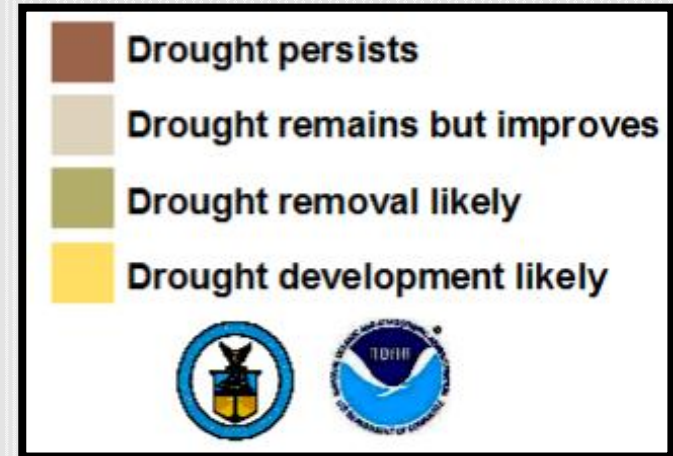


Crater Lake

| | Average Max Temp (°F) | Average Min Temp (°F) | Total Precipitation | Total Snowfall | Snow Depth as of: 7/31/17 | Highest Max/ Lowest Min |
|---------------------------|-----------------------|-----------------------|---------------------|----------------|---------------------------|--|
| July | 71.8° | 42.7° | 0.17" | 0.0" | 0" | 79° (24 th) / 37° (3 rd) |
| Normal (1981-2010) | 68.7° | 40.5° | 1.03" | 0.1" | 0" | N/A |



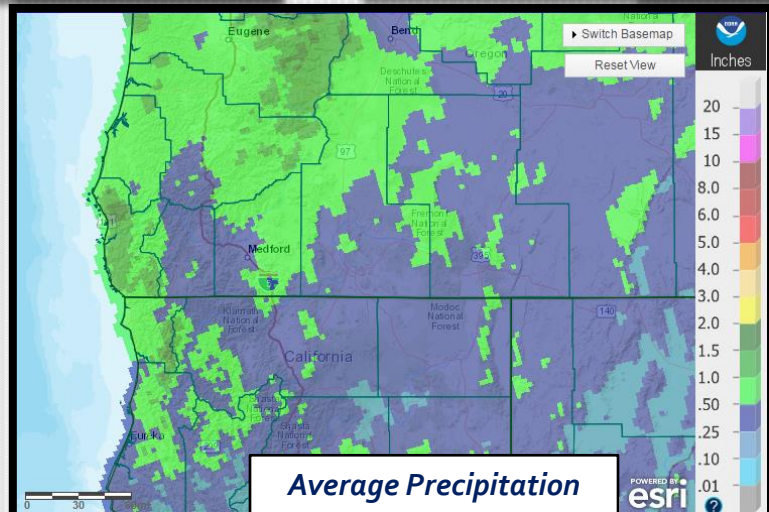
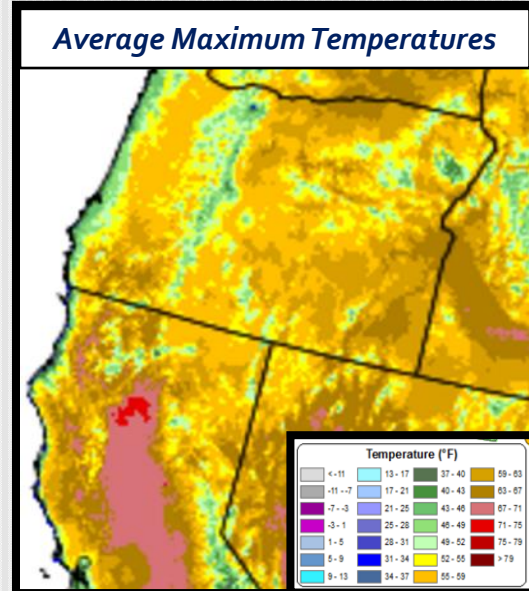
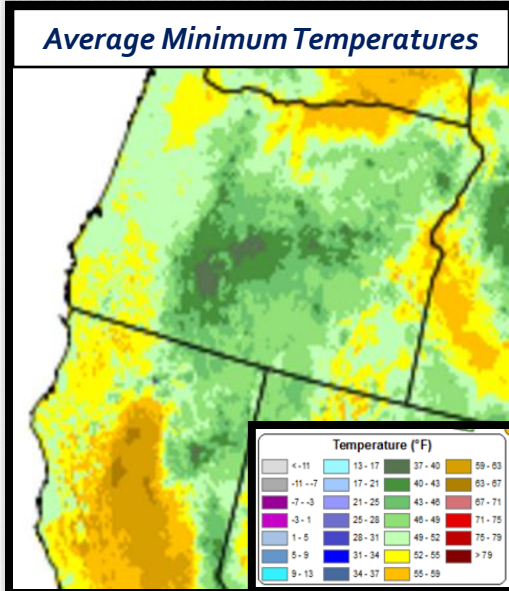
Drought Outlook: August



***Valid for August 2017
Released July 31, 2017***

Looking Ahead: Normals for August (1981-2010)

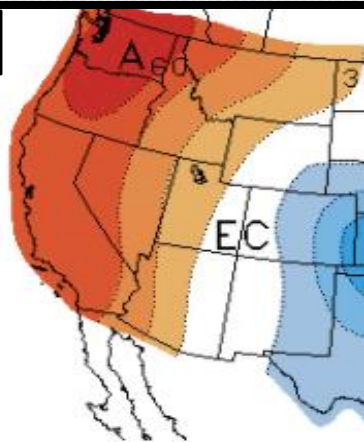
August is typically one of the top two driest dry season months, but is not as dry, when compared to July, west of the coastal mountain ranges and for other locations in the forecast area. High temperatures are very warm, low temperatures are cool, and precipitation is minimal. Most of the forecast area usually receives, on average, an inch or less of precipitation in August. Exceptions include: portions of the coastal mountain ranges, the higher terrain of Siskiyou county west of the Klamath River, and the higher terrain of eastern Douglas county. Valley high temperatures are typically in the 80s to lower 90s. Nights are usually cool, with average minimum temperatures in the 40s for east side valleys, and 50s for west side valleys.



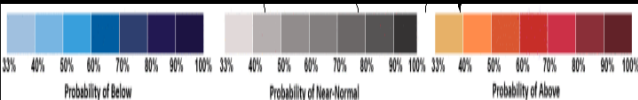
August 2017 Outlook

The official CPC forecast for August 2017 calls for substantially increased chances for warmer than normal temperatures and equal chances of at, below, and above normal precipitation. This forecast looks to be on track, with high confidence in temperatures for the month being above normal. Short and long range models indicate that the first half of the month will be well above normal (>10 degrees F). Confidence is lower for the second half of the month, with a general tendency toward near to above normal temperatures, likely of lesser magnitude. The monsoon is expected to make a prolonged return (5-10 days) to Northern California and southern Oregon through about mid-month, with guidance showing anomalous easterly upper level flow across the region during the August 10-17 time period. Thus, odds for above normal precipitation appear to be greater than other probability categories east of the Cascades, via showers and thunderstorms.

Temperatures



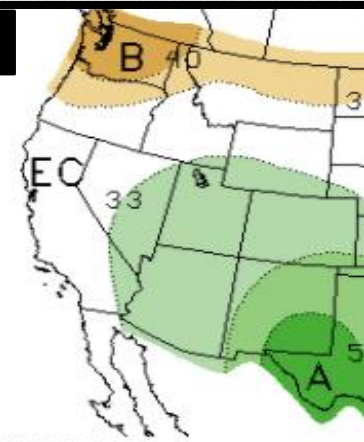
ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID AUG 2017
MADE 31 JUL 2017



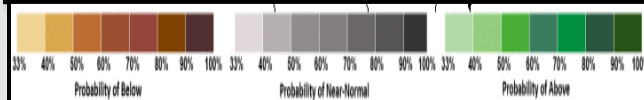
Expected Impact, August 2017:

With vegetation at very dry levels (near record breaking for much of the area) lightning is of great concern, and we expect at to above normal amounts of it from about Aug 5th-Aug 15th. We expect more large wildfires to join those already burning, resulting in at to above normal fire activity by mid-month. Precipitation and smoke are likely to have a mitigating effect on the daytime heat and dryness. However, smoke is likely to affect air quality through month's end.

Precipitation



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID AUG 2017
MADE 31 JUL 2017



*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 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 the site has 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:

- **North Bend: 1/1/1902 – Present**
- **Roseburg: 4/1/1900 – Present**
 - ❖ *Missing:*
 - 05/1900-01/1901
 - 03/1901-06/1902
 - 08/1902-12/1930
 - 10/1965-06/1997
- **Medford: 3/11/1911 – Present**
- **Klamath Falls: 1/1/1948 – Present**
 - ❖ *Missing:*
 - 08-10/1970
 - 1971-10/1997
- **Montague, CA: 7/1/1948 – Present**
 - ❖ *Missing:*
 - 08-09/1952
 - 02/1953-06/2000
- **Mount Shasta City, CA: 4/15/1948 – Present**
 - ❖ *Missing:*
 - 10/1984-01/1985
 - 10/1985-03/1986
 - 09/1986-07/1997
- **Alturas, CA: 6/1/1998 – Present**
 - ❖ *Missing:*
 - 08/1998