

National Weather Service Medford

June 2019 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 \(NCEI\)](#).

June 2019 Weather Review

High pressure kept the area warm and mostly free of precipitation as June began. Cooler air arrived on the 6th, briefly dropping temperatures below normal and producing numerous showers across the area. Medford only managed to pick up 0.01 inches of rain, though, before high pressure returned on the 10th.

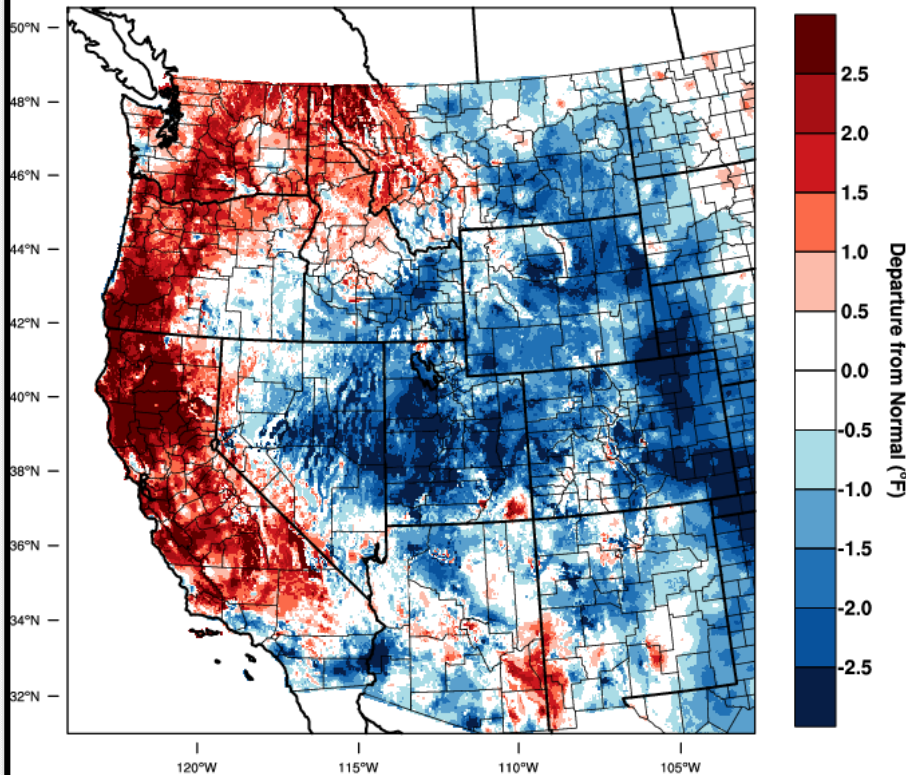
With high pressure dominating and a strong thermal trough building into the area, temperatures quickly jumped to 10 to 15 degrees above normal, peaking with a daily high of 100 degrees on the 11th, and tying a record daily high on the 13th. Warm and dry conditions then continued well into the latter half of June.

A persistent upper level trough pattern then developed on the 20th, producing near normal to cooler than normal temperatures for the remainder of the month. Despite several days of showers and thunderstorms in the area, Medford remained dry, never allowing the month's total rainfall to rise above the paltry 0.01 inches received earlier in the month.

June 2019 *Observed Temperatures*

Western United States - Mean Temperature

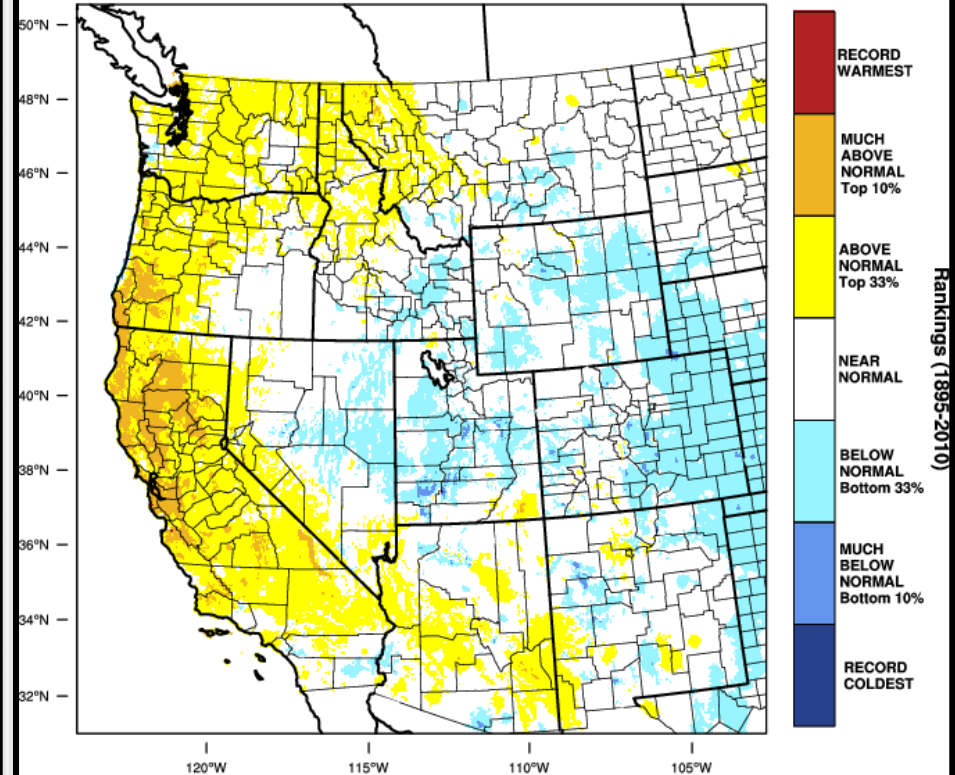
June 2019 Departure from 1981-2010 Normal



WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 JUL 2019

Western United States - Mean Temperature

June 2019 Percentile



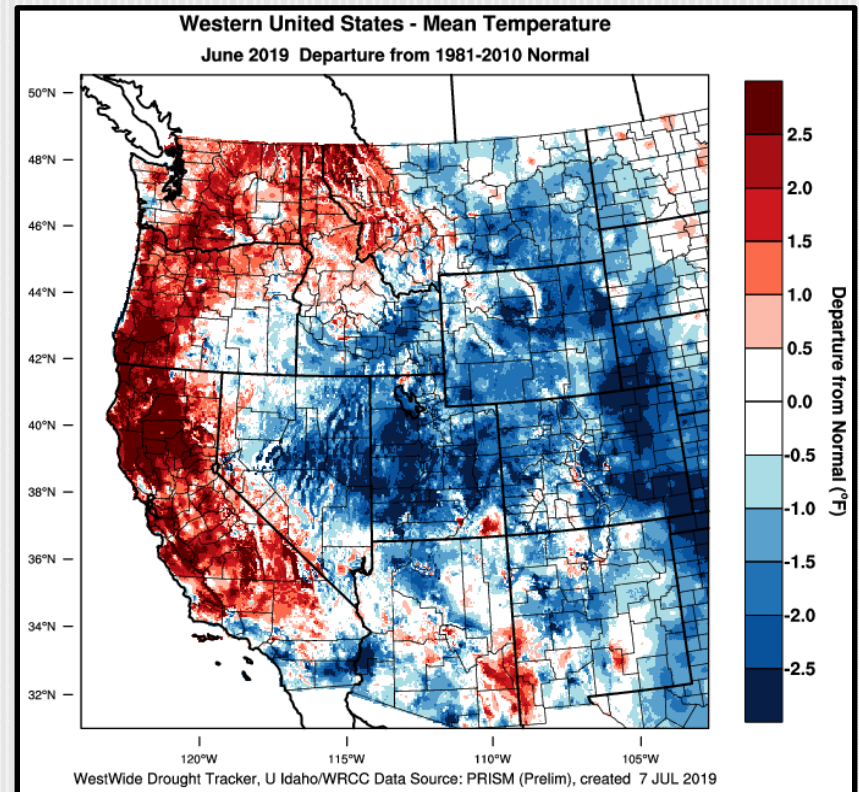
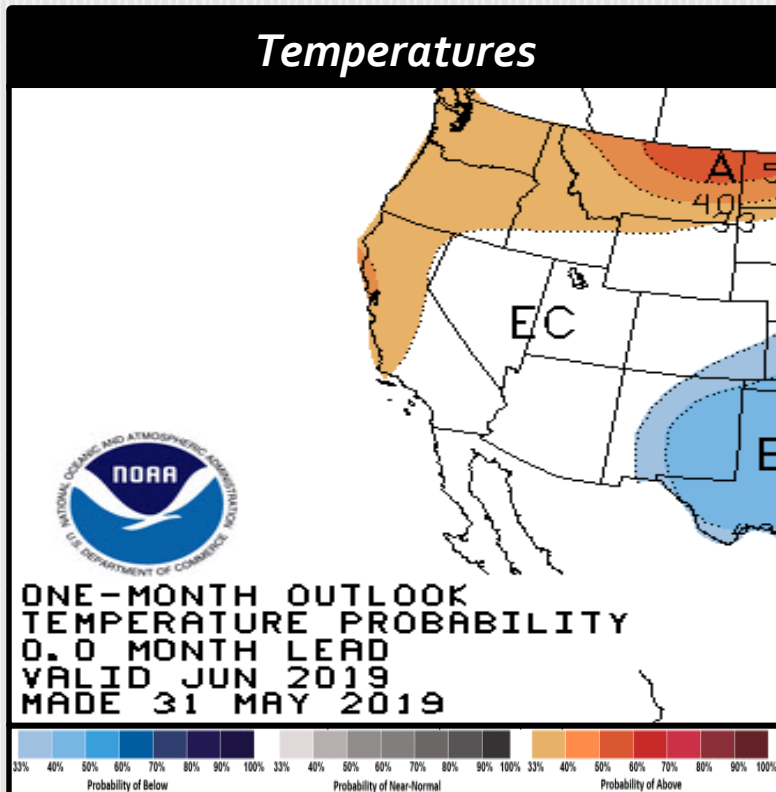
WestWide Drought Tracker, U Idaho/WRCC Data Source: PRISM (Prelim), created 5 JUL 2019

Average June 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>	56.9	0.8°	64.0	2.3°	49.9	-0.6°
<i>Roseburg</i>	67.7	3.8°	82.0	6.0°	53.3	1.5°
<i>Medford</i>	69.1	2.3°	85.2	3.6°	53.1	1.1°
<i>Klamath Falls</i>	59.4	1.2°	77.9	3.9°	40.9	-1.4°
<i>Montague, CA</i>	66.5	2.7°	85.2	4.9°	47.8	0.5°
<i>Mt. Shasta City, CA</i>	64.2	2.7°	80.8	3.7°	47.6	1.7°
<i>Alturas, CA</i>	60.6	1.2°	79.9	2.2°	41.4	0.4°

A Look Back at the June 2019 Temperature Outlook

- **Was the forecast anomaly correct?** Yes, except for portions of the east side, especially Lake County.
- **Was the expected impact correct?** Generally, yes. However, after fire danger indices increased, cooler weather toward month's end along with higher RH kept fire danger about the same, rather than resulting in an increase.
- **Did our "Localized Forecast" improve upon the CPC forecast?** Yes, except over parts of Lake County. At mid-month our localized outlook indicated "a high probability" that temperatures would finish the month 2 to 7 degrees F above normal. Actual anomalies were 1 to 4 degrees above normal at our ASOS stations, so we were a little on the high side with our forecast, except over Lake County.



June

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>79°</i>	<i>11th</i>	<i>45°</i>	<i>20th & 4th</i>
<i>Roseburg</i>	<i>101°</i>	<i>12th</i>	<i>43°</i>	<i>8th</i>
<i>Medford</i>	<i>100°</i>	<i>11th</i>	<i>41°</i>	<i>8th</i>
<i>Klamath Falls</i>	<i>90°</i>	<i>11th</i>	<i>27°</i>	<i>8th</i>
<i>Montague, CA</i>	<i>97°</i>	<i>11th</i>	<i>37°</i>	<i>8th</i>
<i>Mt. Shasta City, CA</i>	<i>94°</i>	<i>11th</i>	<i>36°</i>	<i>9th</i>
<i>Alturas, CA</i>	<i>92°</i>	<i>12th</i>	<i>30°</i>	<i>8th</i>

June Records

RECORD HIGH TEMPERATURES

	<i>New Record</i>	<i>Date</i>	<i>Old Record</i>	<i>Year</i>
<i>Medford</i>	99°	12 th	99°	1986
<i>Montague</i>	94°	13 th	94°	1986
<i>Mount Shasta City</i>	94°	11 th	92°	1986
	88°	13 th	87°	2018
<i>Roseburg</i>	101°	12 th	97°	2002

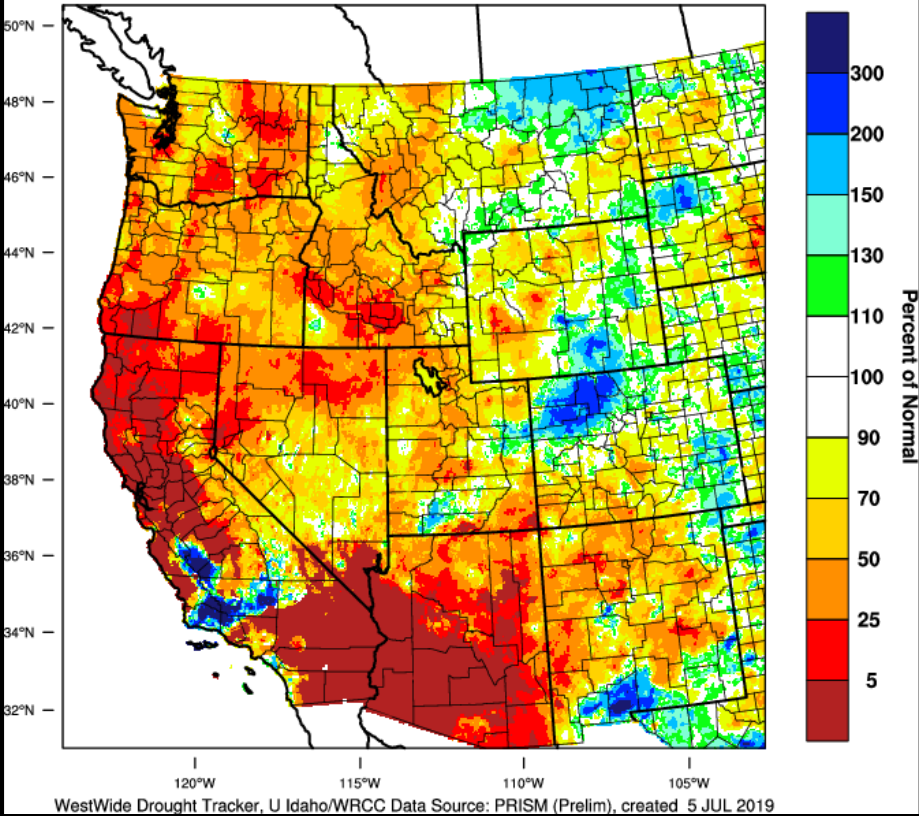
RECORD LOW TEMPERATURES

	<i>New Record</i>	<i>Date</i>	<i>Old Record</i>	<i>Year</i>
<i>Klamath Falls</i>	27°	9 th	28°	2002
	30°	21 st	30°	1916

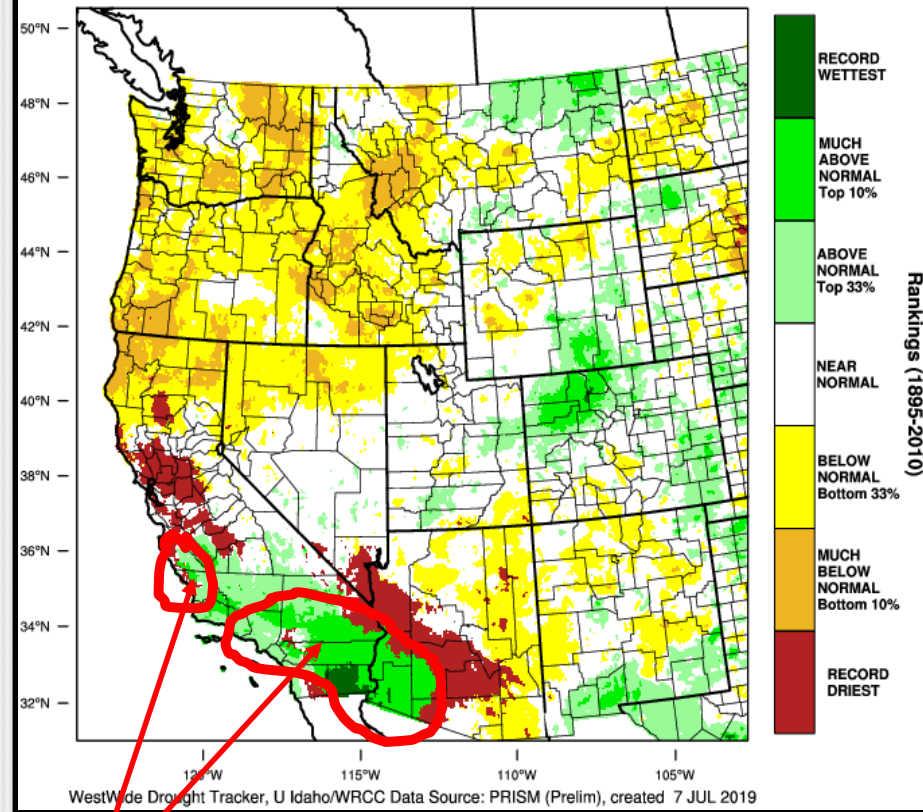
No precipitation records were set during the month of June

June 2019 *Observed Precipitation*

Western United States - Precipitation
June 2019 Percent of 1981-2010 Normal



Western United States - Precipitation
June 2019 Percentile

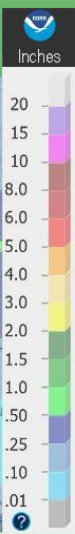


Errant Analysis

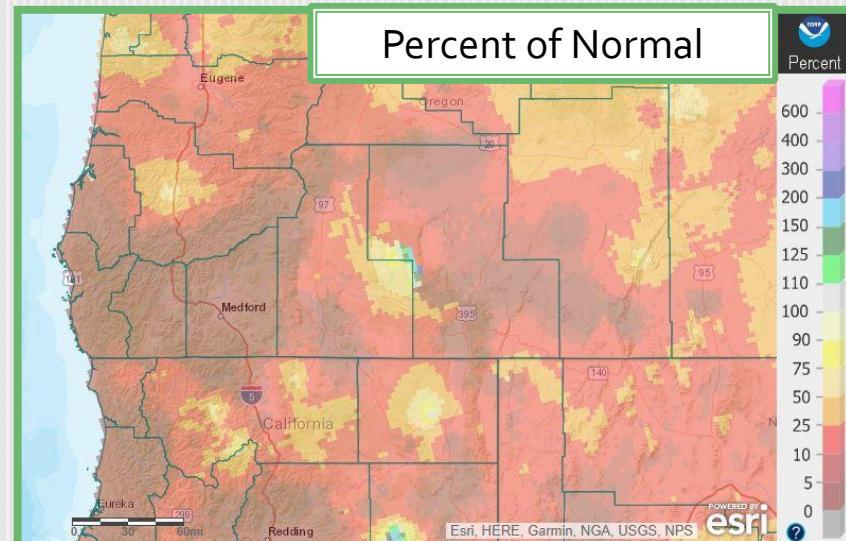
June Precipitation

	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
North Bend	0.37"	-1.58"	0.20"	26 th
Roseburg	0.74"	-0.39"	0.51"	27 th
Medford	0.01"	-0.61"	0.01"	7 th
Klamath Falls	0.08"	-0.96"	0.05"	28 th
Montague, CA	0.06"	-0.65"	0.06"	1 st
Mt. Shasta City, CA	0.32"	-0.88"	0.32"	1 st
Alturas, CA	0.14"	-0.76"	0.09"	13 th

Observed



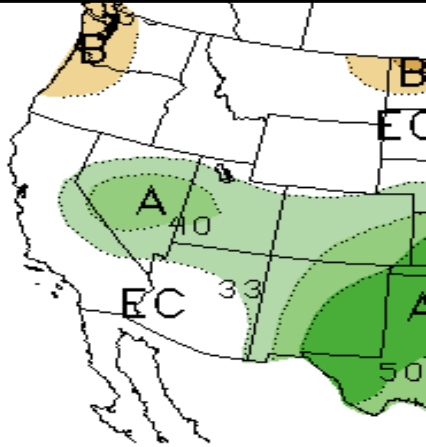
Percent of Normal



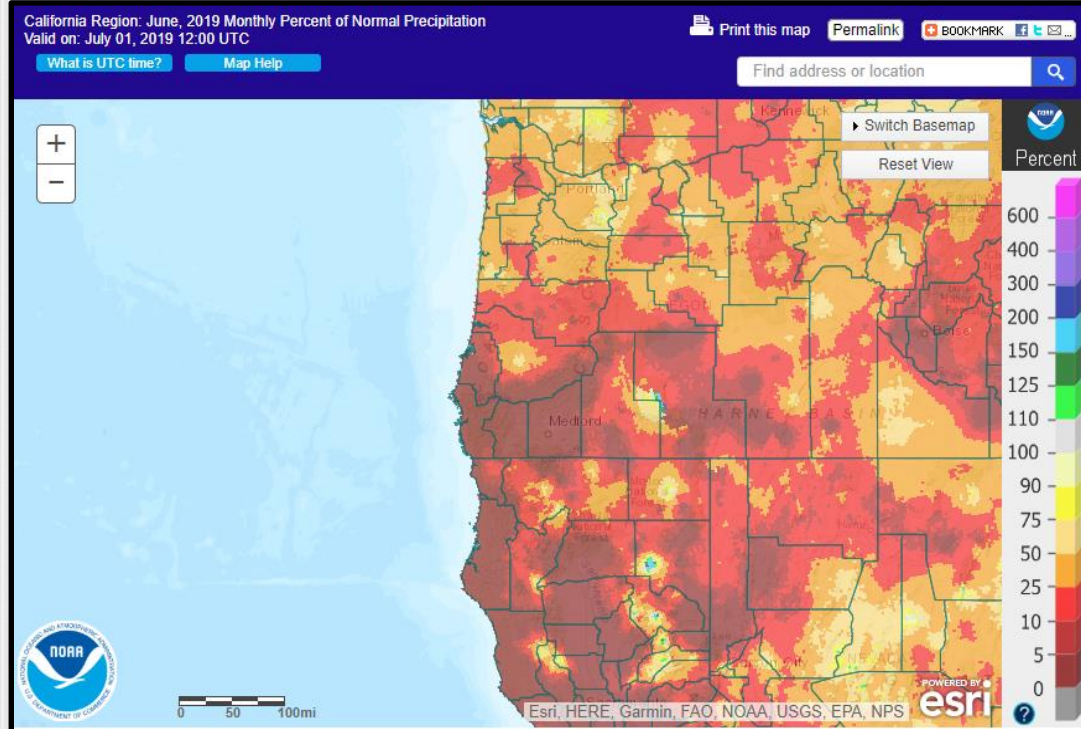
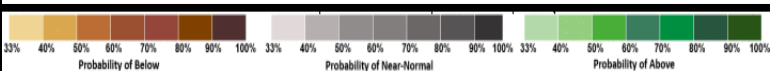
A Look Back at the June 2019 Precipitation Outlook

- **Was the forecast anomaly correct?** Yes. CPC's forecast indicated equal chances of below, near, and above normal precipitation. Based on what did occur, increased probabilities of below normal precipitation would have been a better forecast.
- **Was the expected impact correct?** Yes. Reservoir levels continued to drop, and Lost Creek & Applegate Reservoirs are more drawn down than they are in an average year. Fire Energy Release Components increased through much of the month, but did edge slightly down at month's end due to cooler temperatures and higher RHs.
- **Did our forecast improve upon the CPC forecast?** Yes. We indicated that "precipitation was likely to end the month below normal for most of the area except for isolated locations east of the Cascades that had already received above normal precipitation- such as the Summer Lake RAWS", and that "rainfall the 24th-30th was unlikely to be enough to overcome mounting deficits from earlier" in the month.

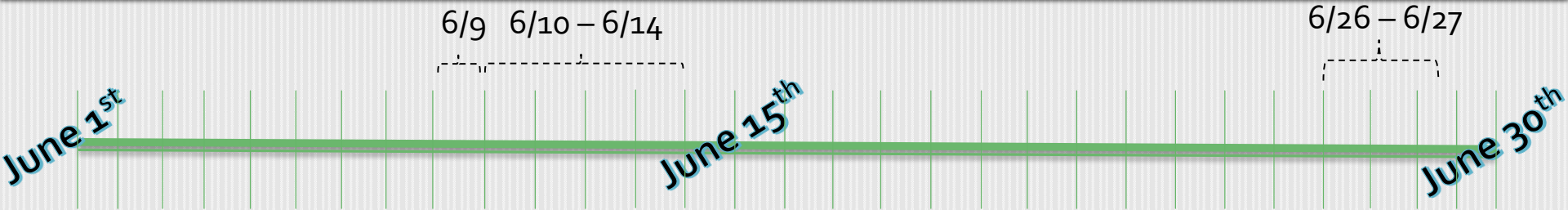
Precipitation



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID JUN 2019
MADE 31 MAY 2019



June Significant Weather Events



June 9, 2019 – Noctilucent Clouds Over SW Oregon

Noctilucent clouds are quite a rare sight in SW Oregon, but they appeared Sunday evening, June 9, 2019.




Photo: Marc Spilde

The clouds are at very high altitudes. They can only be seen during the late spring, summer, early fall months when the sun is below the observer's horizon, but also while the clouds themselves are still in the sunlight. Usually, they are visible between 50 and 70 degrees north and south of the equator. In this case, they were visible at 42 degrees north. Once the sun gets far below the horizon and no longer shines on the clouds, the clouds are no longer visible. Additional information here - https://en.wikipedia.org/wiki/Noctilucent_cloud

Early June Heat Wave

- From the 10th to the 14th, temperatures averaged 10-15 degrees above normal in many areas across the forecast area. The peak of the heat came on the 11th and 12th with temperatures near 100 degrees in both Medford and Roseburg. A few records were recorded as well.



What is a Heat Wave

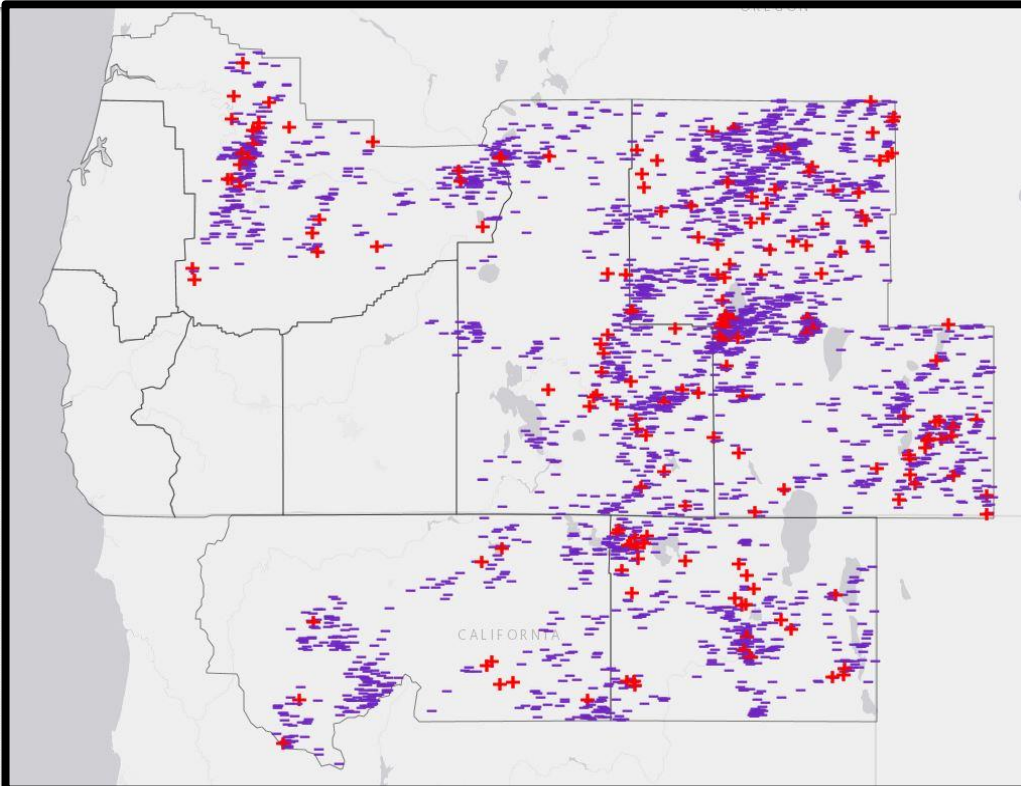
- Abnormally hot and humid weather lasting at least 2 days
- Heat waves can occur anywhere in the country and cause heat illness or even death

find out how to stay safe at www.weather.gov/heat

Weather-Ready Nation
National Oceanic and Atmospheric Administration

National Weather Service
weather.gov/heat

June Lightning



Lightning summary 6/1/2019 0:00UTC to 6/30/2019 23:00UTC

280	623	616	617	622	624	281	625	284	285	282
173	34	277	121	2	712	6	1230	142	373	14
Douglas		Modoc		Lake	Jackson		Siskiyou		Klamath	
388		407		1447	5		349		485	

- *This is cumulative cloud to ground (CG) lightning for June. As you can see, the majority of observed CG strikes occurred east of the Cascades and in northern California. While some smaller fires did occur, most ignitions that were reported were easily controlled.*
- *A late June (26-27th) cluster of storms developed in Douglas County resulting in a collection of strikes near Roseburg.*
- *With fuel moistures still mostly in the moderate range, fire activity was muted. However, 6 starts were observed, including the Days Coffee Fire.*

Days Coffee Wildfire

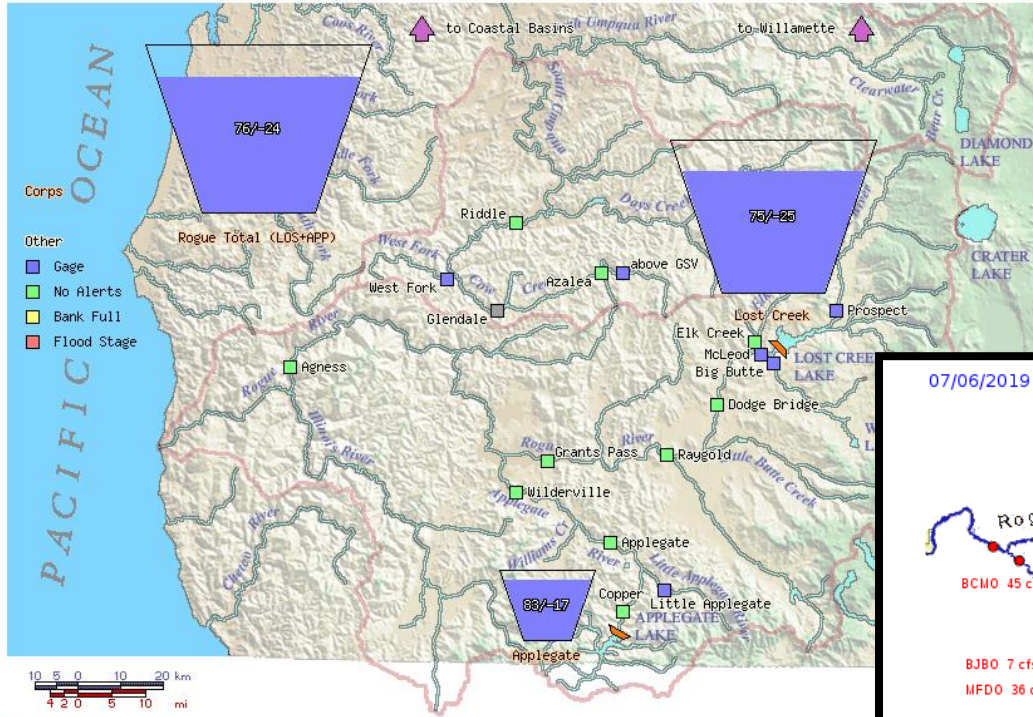
- The Days Coffee wildfire was sparked by lightning on Wednesday, June 26th, 2019 about 6 miles northwest of Tiller. It grew to around 150 acres, but never threatened any homes.



- The wildfire was lined by June 28th.

Reservoir Status

Rogue Basin Teacup Diagram

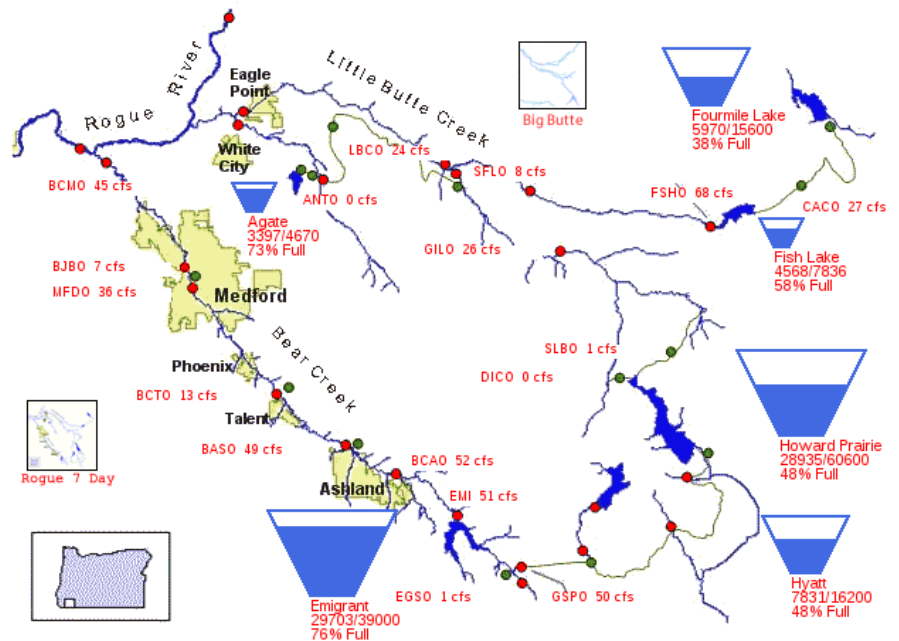


Created: Sun Jul 7 22:25:28 2019
 WCD: Water Control Diagram
 Project numbers: percent full / percent above WCD, where
 $\text{percent full} = (\text{current storage} - \text{minimum conservation storage}) / (\text{maximum conservation storage} - \text{minimum conservation storage})$
 $\text{percent above water control diagram} = (\text{current storage} - \text{WCD storage}) / (\text{maximum conservation storage} - \text{minimum conservation storage})$

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

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

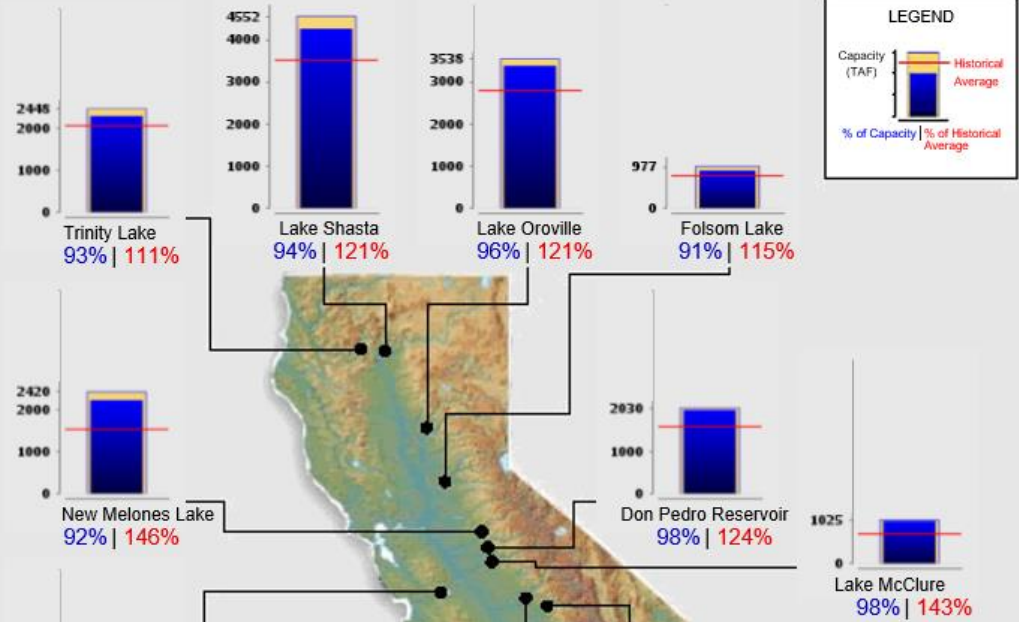
07/06/2019



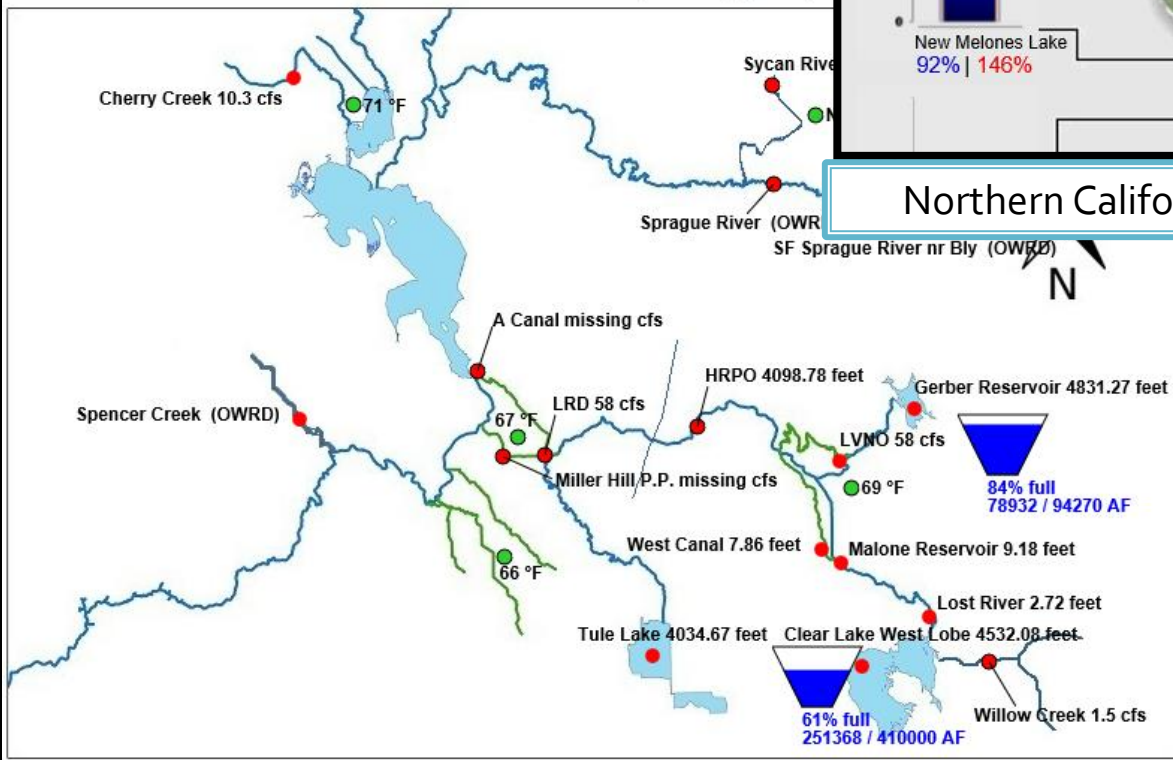
Reservoir Status

Ending At Midnight - July 9, 2019

CURRENT RESERVOIR CONDITIONS



Wed Jul 10 2019 10:02:36 GMT-0700 (Pacific Daylight Time)



Northern California. [California Data Exchange Center](#)

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

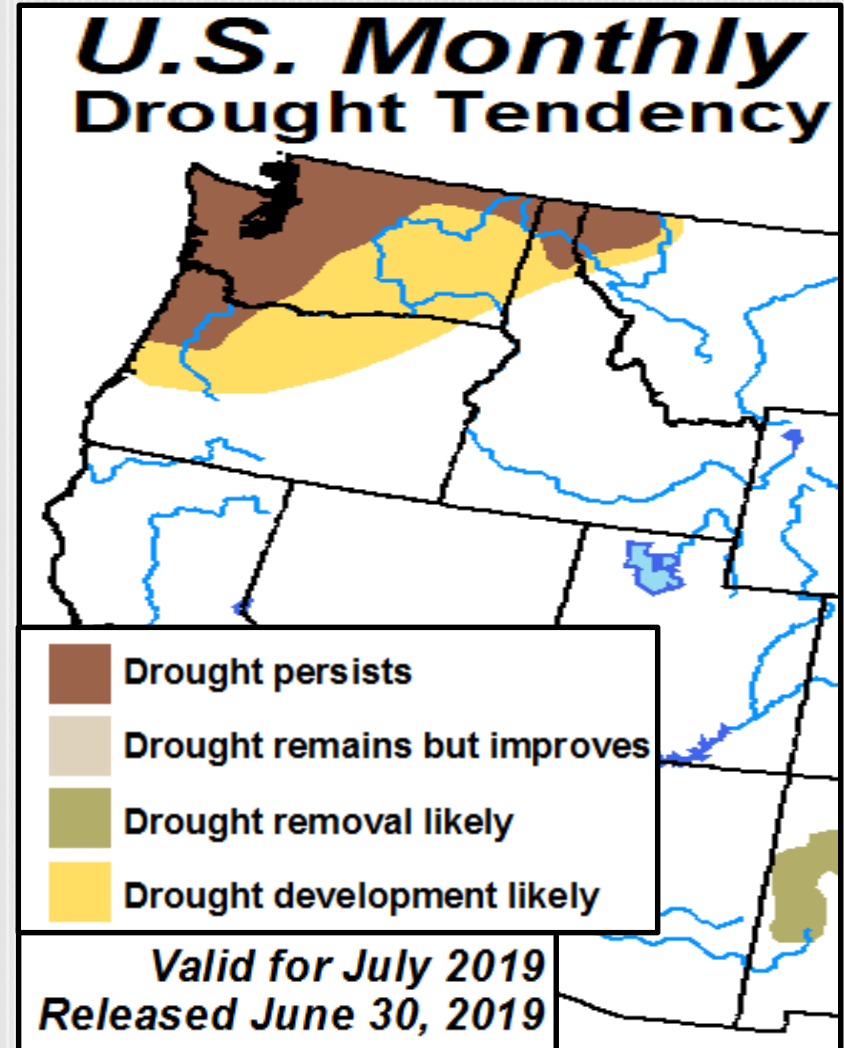
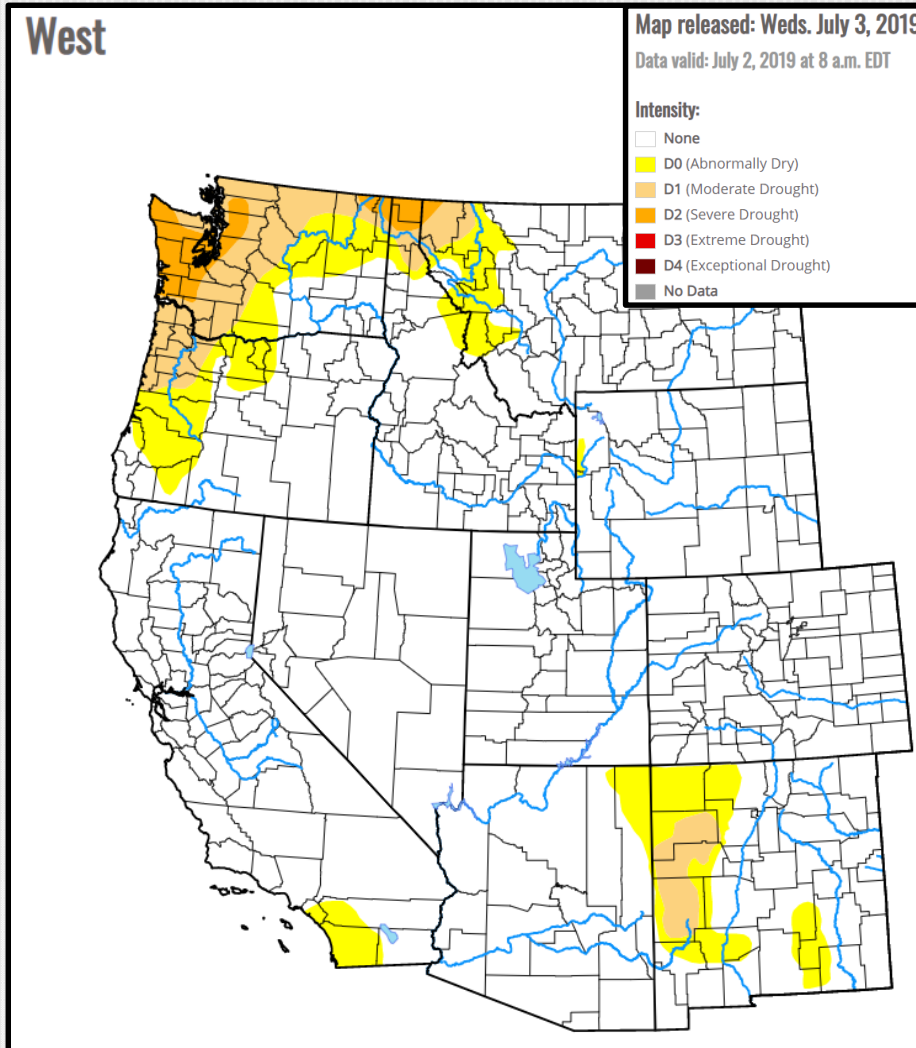
Crater Lake

	<i>Average Max Temp (°F)</i>	<i>Average Min Temp (°F)</i>	<i>Total Precipitation</i>	<i>Total Snowfall</i>	<i>Snow Depth as of: 06/30/19</i>	<i>Highest Max/ Lowest Min</i>
<i>June</i>	<i>60.4°</i>	<i>35.0°</i>	<i>0.21"</i>	<i>T</i>	<i>0"</i>	<i>74° on 12th / 23° on 8th</i>
<i>Normal (1981-2010)</i>	<i>57.9°</i>	<i>33.2°</i>	<i>2.28"</i>	<i>4.1"</i>	<i>6"</i>	<i>N/A</i>



Image Courtesy: NPS

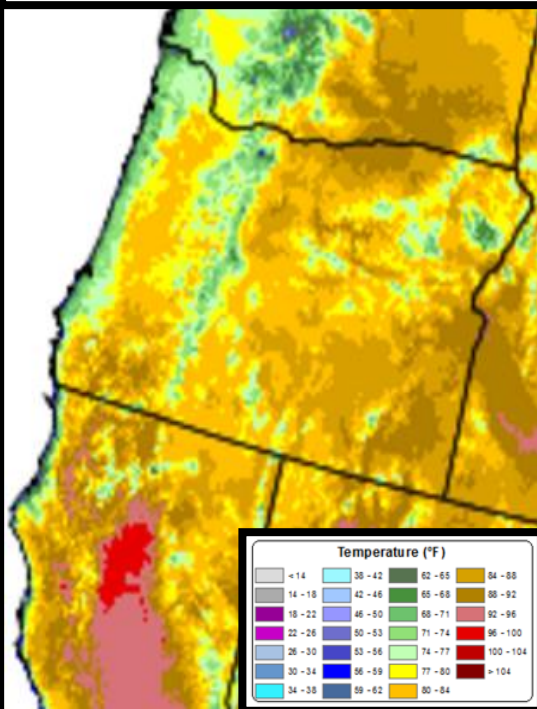
US Drought Monitor & Outlook



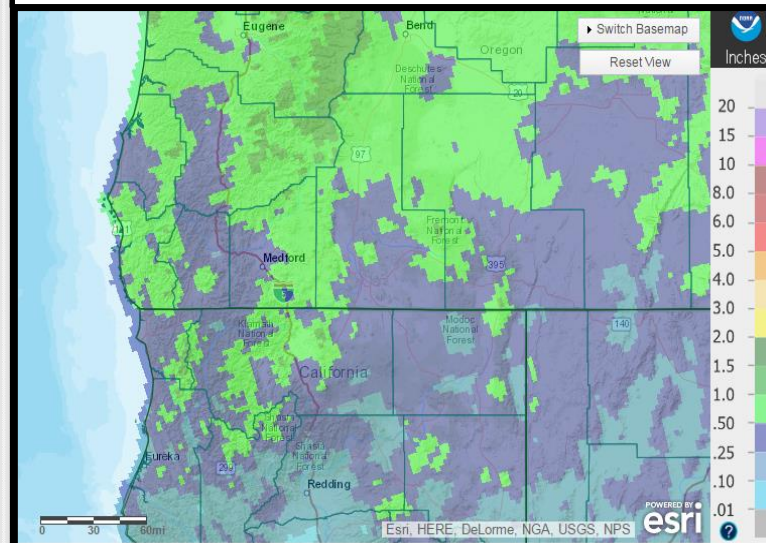
Looking Ahead: Normals for July (1981-2010)

Typically, July, along with August, is one of the two driest and warmest dry season months. High temperatures are very warm to occasionally hot, low temperatures are cool to occasionally warm, and precipitation is minimal, yet locally intense, usually coming in the form of monsoonal showers and thunderstorms. Nearly all of the forecast area receives, on average, an inch or less of precipitation in July. Valley high temperatures are usually in the 80s to lower 90s. Nights are usually cool, with average minimum temperatures in the 40s for valleys east of the Cascades, and 50s in valleys west of the Cascades.

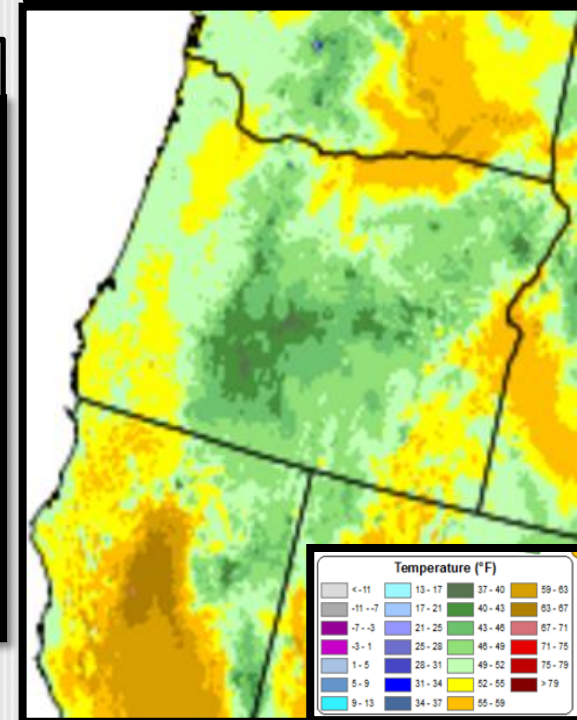
July Avg Maximum Temperatures



July Average Precipitation

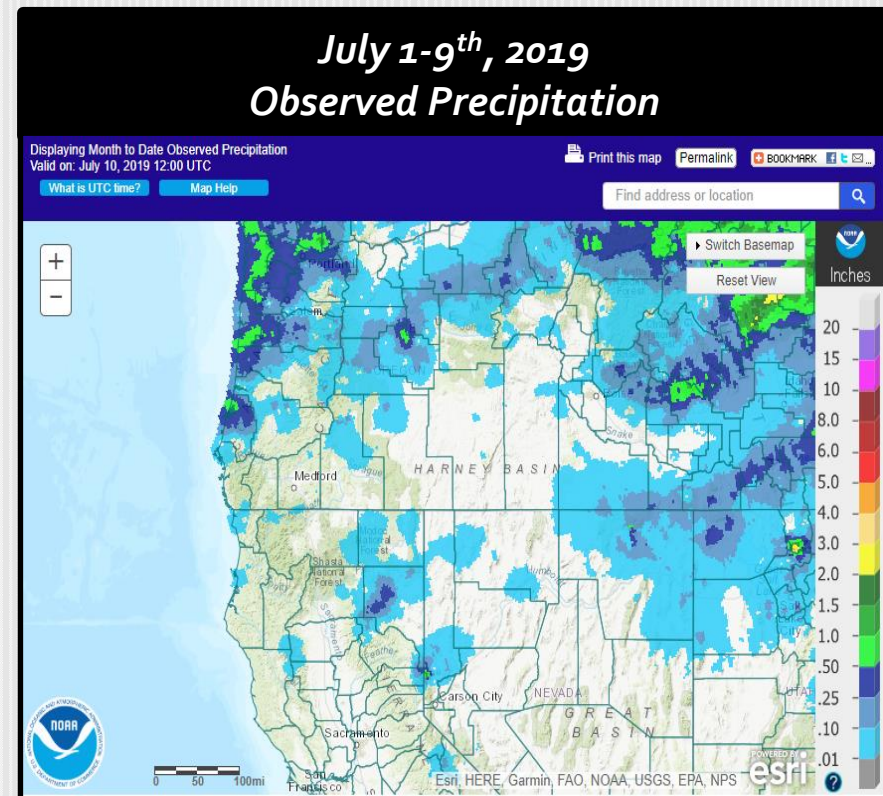
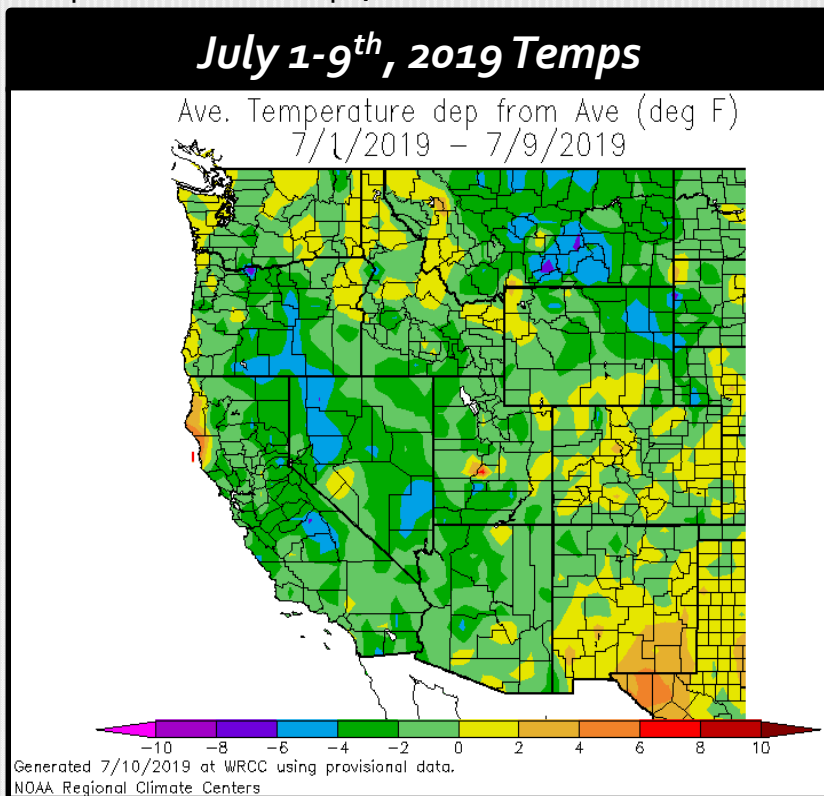


July Avg Minimum Temperatures



July 1st-9th, 2019: Observed

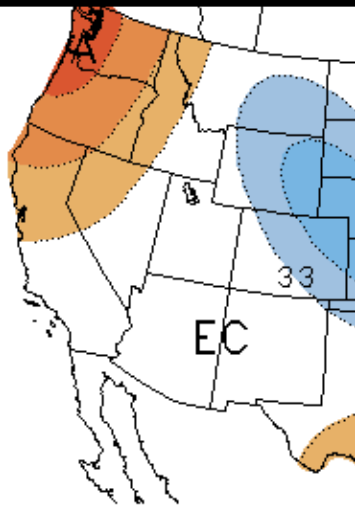
- Average temperatures have been below normal, with negative anomalies greatest east of the Cascades. The exception has been along the Coos County coast, where 0 to +2F anomalies have been recorded.
- Very little rain has been observed, thus far, this month. However, a frontal system did deliver a daily rainfall record to North Bend/Coos Bay July 9th. Additional precipitation did occur in Curry County on the 10th, but was not yet depicted on the maps, below.



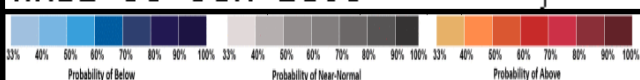
July 2019 Outlook

The official CPC outlook calls for enhanced probabilities of above normal temperatures (40-50%) and enhanced probabilities of below normal precipitation (33-40%). As of Thursday, July 11th, it appears that average temperatures for July are most likely to end up within 2 degrees of normal across the Medford, Oregon forecast area. Odds for temperatures to be slightly above normal are highest along and near the coast over the western portion of the area. Odds for average temperature for July to end up below normal look highest east of the Cascades. Since normal precipitation is so low for the month of July, just one strong thunderstorm or batch of frontal precipitation can be the outcome. That said, precipitation from the July 9th and 10th frontal system pushed the Coos Bay area to above normal for July. Another series of frontal systems expected July 16th-20th mean Coos County is likely to finish the month above normal for precipitation, and Douglas County west of Roseburg and Curry County north of Brookings could finish near normal. Elsewhere, drier than normal conditions are generally expected, which also equates to a below normal amount of lightning. Warmer than normal temperatures expected July 22nd-31st could bring some thunderstorms during the last week of the month, but long range guidance has been inconsistent, of late, so confidence is low.

Temperatures



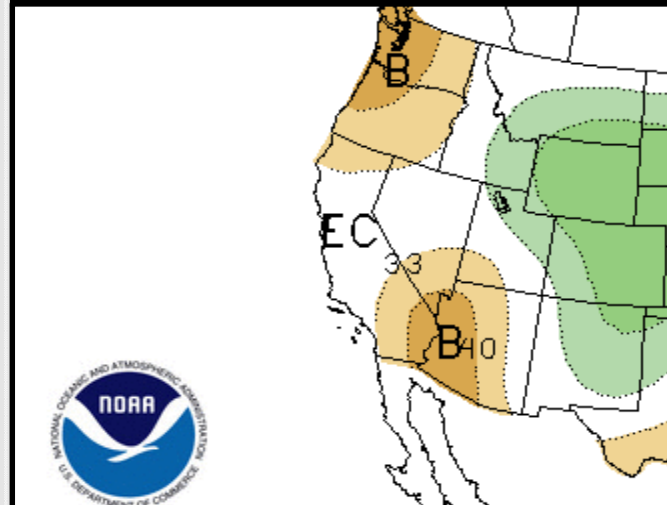
ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID JUL 2019
MADE 30 JUN 2019



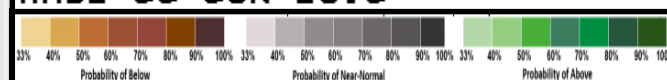
Expected Impact, July 2019:

The expected conditions of near normal temperatures and below normal precipitation (except along and near the coast) means that weather related impacts are likely to be minimal. Coastal and near coastal areas are likely to see decreased fire danger until the last week of the month. Inland lesser than normal lightning means the chances of large, impacting fires is lesser than normal. However, with lower pressure lingering across the PacNW, gusty winds in the afternoons and evenings will continue to dry vegetation and increase the potential for wind driven fire during the afternoon and evening hours. Below normal precipitation inland means reservoirs will continue to draw down faster than usual. This yields some concern for late dry season water supplies and the August-September portion of fire season. However, if heat and lightning do arrive approx. the last week of the month, then fire activity could pick up fast.

Precipitation



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID JUL 2019
MADE 30 JUN 2019



*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 may 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:

- **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: 12/1/1897 – Present**
- **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