

National Weather Service Medford

September 2018 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 \(NCEI\)](#).

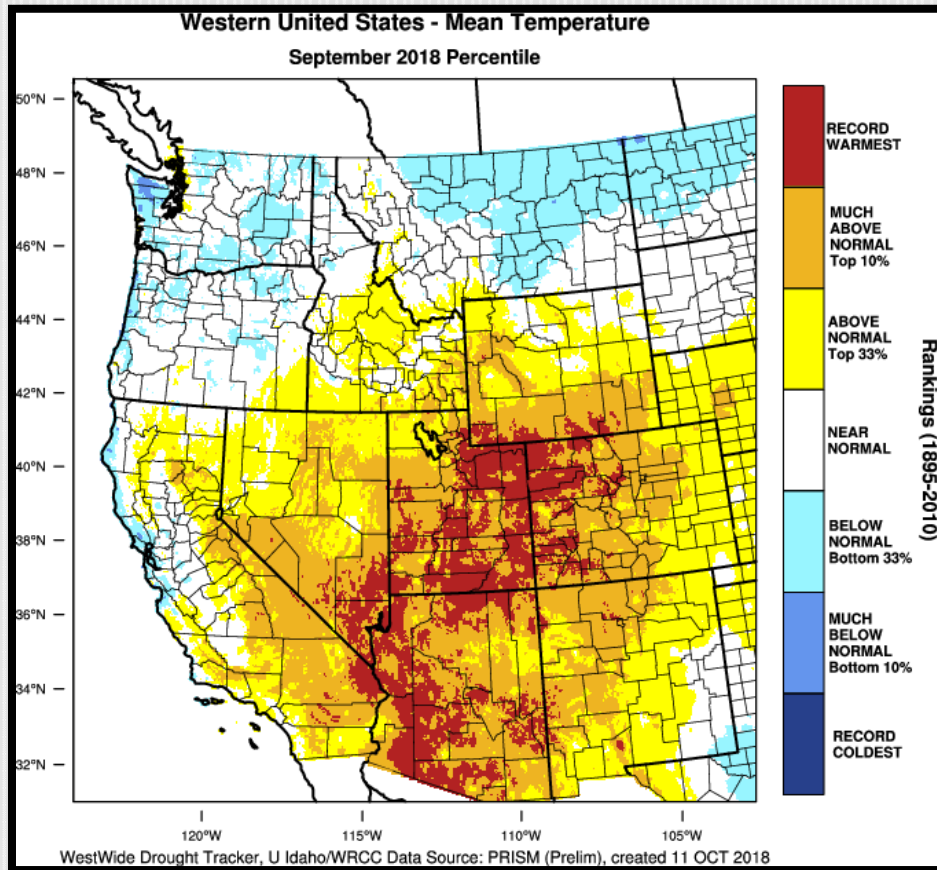
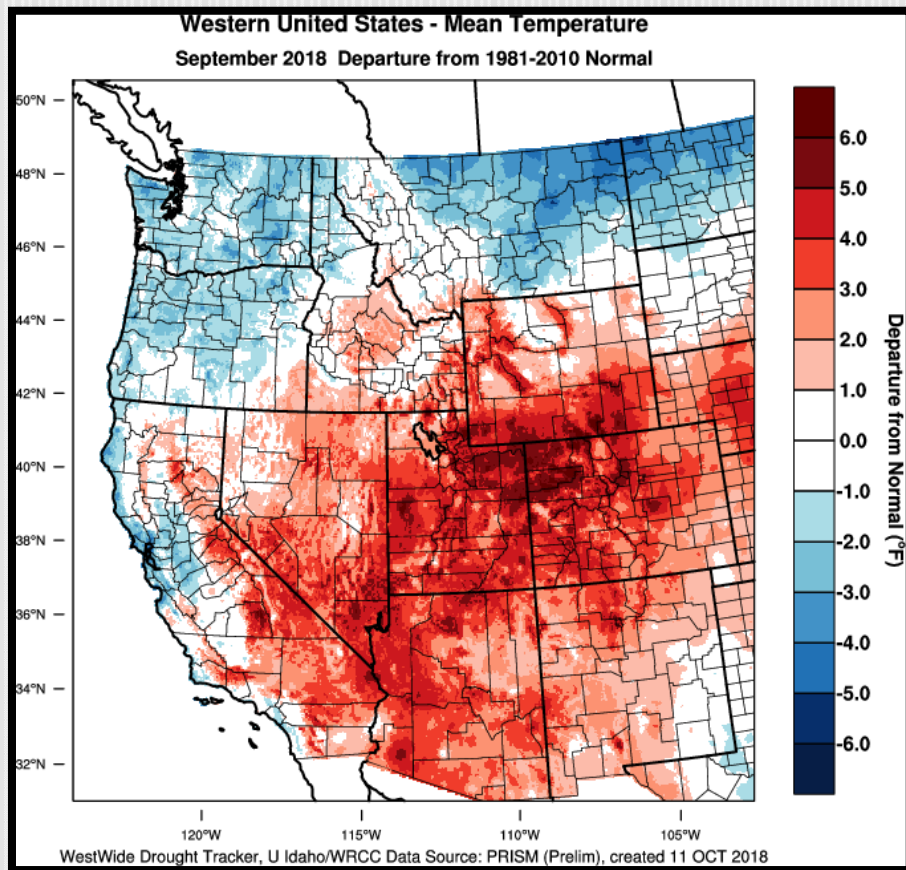
September 2018 Weather Review

The long, dry and smoky fire season continued well into September this year. Wildfires continued to burn through the month, although many saw decreasing activity due to much cooler temperatures and the shorter days that September brings with it. Persistent low pressure over the Pacific Northwest brought near normal temperatures for the month, with some areas seeing above normal and other areas seeing below normal temperatures for September. Although there was persistent low pressure, there wasn't much moisture to accompany it, so the whole forecast area saw below normal precipitation.

During the first week or so, the forecast area was under the influence of high pressure, so hot temperatures continued until low pressure settled over the Pacific Northwest. This brought a period of below normal temperatures and some areas even set records for the lowest high temperature on the 12th. A weak front moved through during this time, and while it brought precipitation to the coast and north of the Umpqua Divide, the rest of the area remained dry but at least saw a reprieve from the smoke. This marked the transition to a period of much cooler temperatures which helped to significantly reduce fire activity across the area. Several more weak, and mostly dry, fronts moved through during the next two weeks, continuing the cooler than normal temperatures and mostly smoke free conditions.

Towards the end of the month, a period of offshore flow under the thermal trough pattern quickly warmed temperatures back to 10 to 15 degrees above normal. This brought an uptick in fire activity and the return of smoky/hazy conditions across the forecast area. This change was short lived, however, as low pressure returned during the last few days of the month. There was finally some moisture to go along with this system, and most of the forecast area saw it's first widespread wetting rain since early June, especially west of the Cascades. It wasn't quite enough to call an end to the 2018 fire season, but amounts ranged from 0.10" to 0.50" with local amounts of 1" to 1.50" under heavier showers. The biggest fire in the forecast area, the Klondike/Taylor Creek Fire, received amounts on the lower end and while it was enough to put a significant dent in the fire activity, it wasn't enough to completely extinguish the fire.

September 2018 Observed Temperatures



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>	58.2	+0.8°	66.6	+1.8°	49.7	-0.3°
<i>Roseburg</i>	64.7	-0.2°	79.0	+0.4°	50.3	-0.9°
<i>Medford</i>	65.9	-0.9°	82.7	-0.8°	49.1	-0.9°
<i>Klamath Falls</i>	55.9	-1.5°	77.0	+1.2°	34.9	-4.2°
<i>Montague, CA</i>	62.9	+0.7°	82.8	+1.5°	43.1	0.0
<i>Mt. Shasta City, CA</i>	61.3	+0.8°	78.6	+0.6°	44.0	+1.0°
<i>Alturas, CA</i>	56.4	+0.1°	80.3	+2.7°	32.5	-2.5°

Monthly Max & Min Temperatures

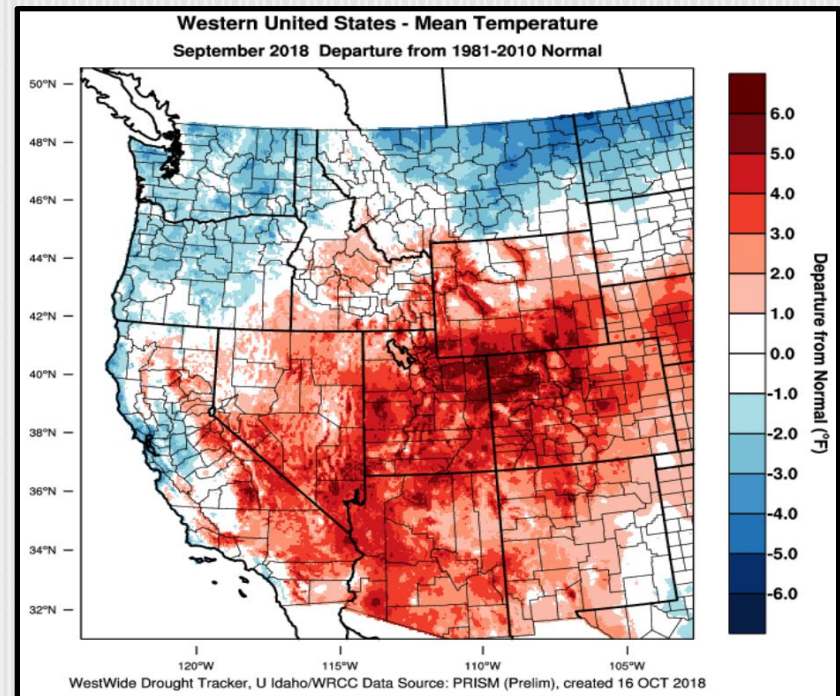
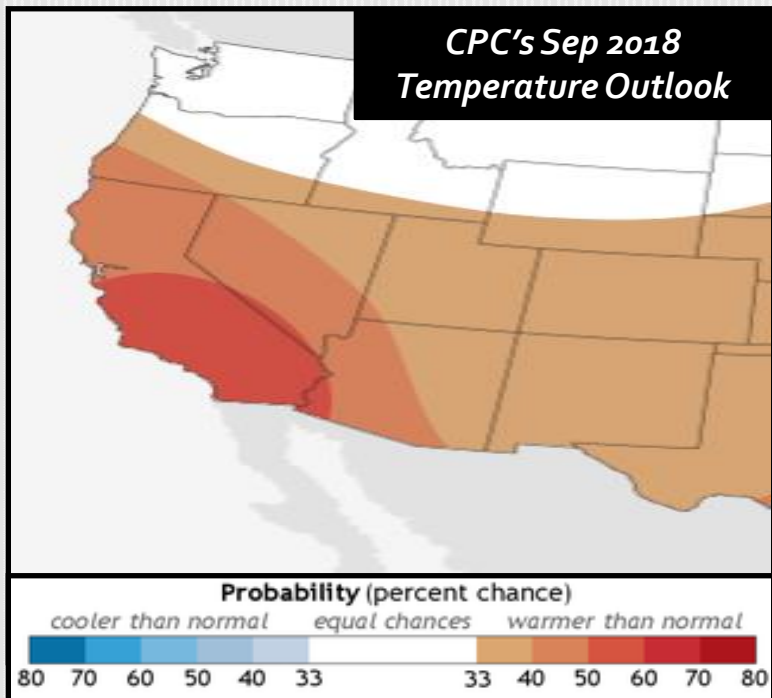
	<i>Max (°F)</i>	<i>Date(s)</i>	<i>Min (°F)</i>	<i>Date(s)</i>
<i>North Bend</i>	<i>74°</i>	<i>26th & 27th</i>	<i>44°</i>	<i>18th</i>
<i>Roseburg</i>	<i>91°</i>	<i>5th</i>	<i>43°</i>	<i>24th</i>
<i>Medford</i>	<i>96°</i>	<i>5th</i>	<i>42°</i>	<i>20th & 24th</i>
<i>Klamath Falls</i>	<i>88°</i>	<i>5th & 27th</i>	<i>26°</i>	<i>24th</i>
<i>Montague, CA</i>	<i>95°</i>	<i>5th</i>	<i>34°</i>	<i>20th</i>
<i>Mt. Shasta City, CA</i>	<i>92°</i>	<i>27th</i>	<i>33°</i>	<i>17th</i>
<i>Alturas, CA</i>	<i>91°</i>	<i>4th</i>	<i>23°</i>	<i>17th</i>

	<i>Date</i>	<i>Record Low Max Temp</i>	<i>Old Record/Year</i>
<u>Montague</u>	12 th	72°F	75°F / 2005
<u>Alturas</u>	12 th	68°F	69°F / 2005

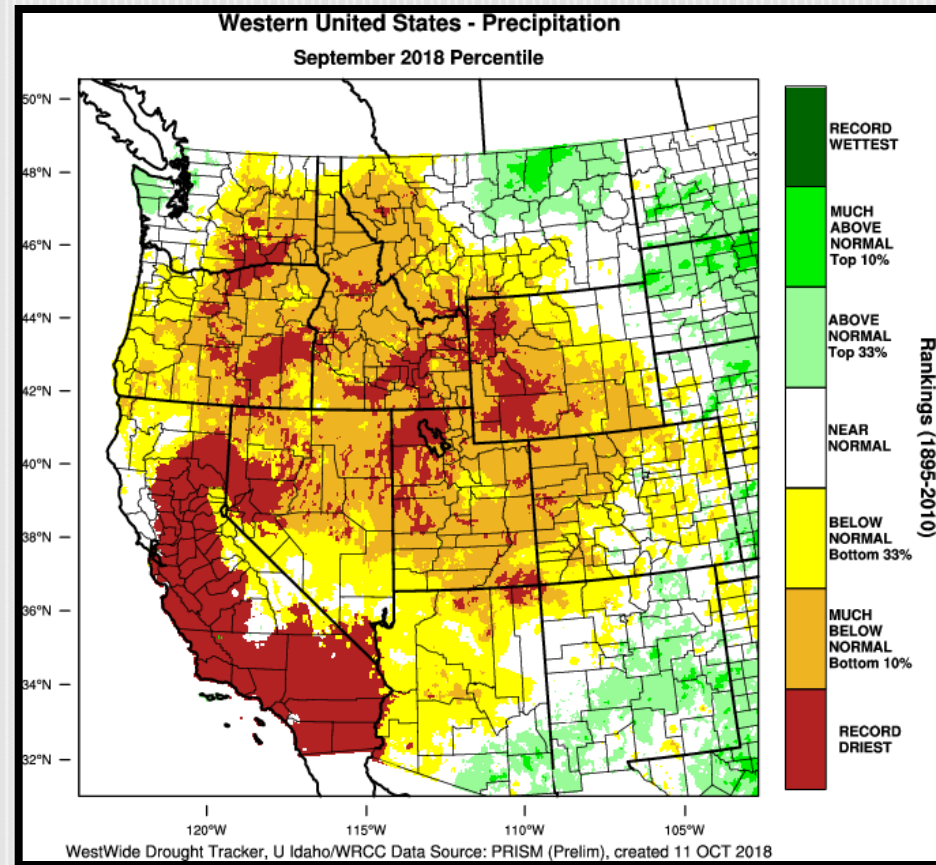
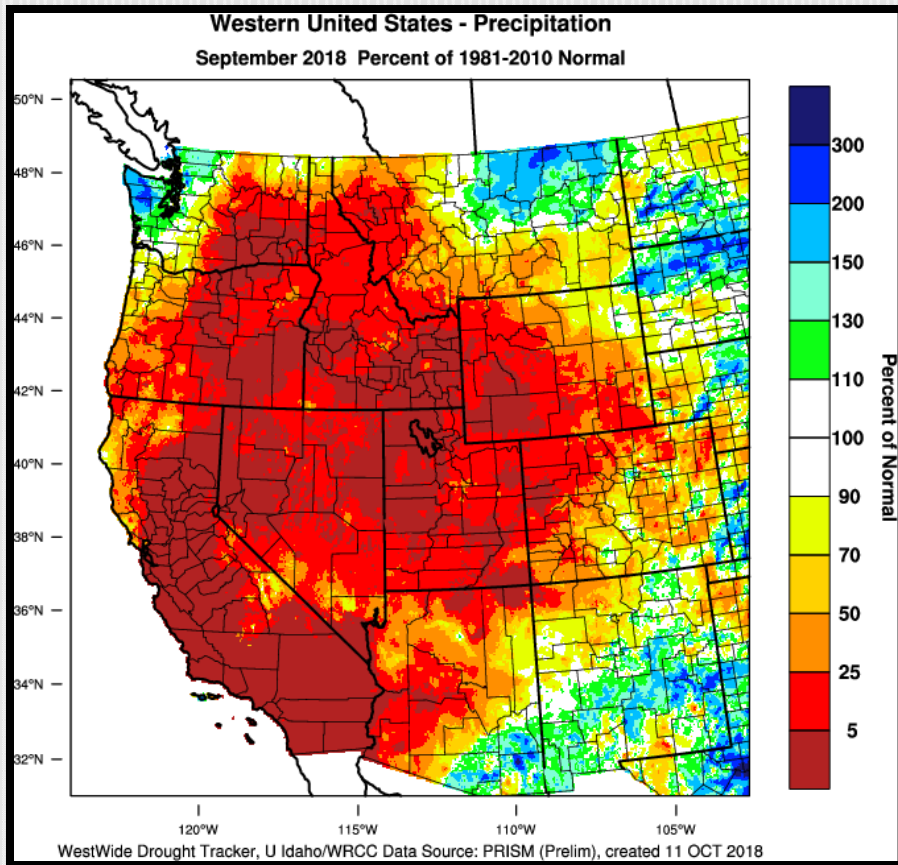
	<i>Date</i>	<i>Record Low Min Temp</i>	<i>Old Record/Year</i>
<u>Klamath Falls</u>	14 th	28°F	29°F / 1936
	16 th	28°F	Ties w/ 1907
<u>Alturas</u>	17 th	23°F	24°F / 1965

A Look Back at the Sept 2018 Temperature Outlook

- **Was the forecast anomaly correct?** CPC's forecast is probabilistic, so what can be said is that they indicated too high of a probability for above normal temperatures. Temperatures were up to 3 degrees below normal and no more than 2 degrees above normal across the forecast area.
- **Was the expected impact correct?** Our localized forecast did not focus on temperatures being an impact because we expected them to be near normal.
- **Did our forecast improve upon the CPC forecast?** Our mid-month forecast was definitely an improvement on CPC's forecast, though one should keep in mind that our forecast was created around the middle of September, which gave a bit of an advantage. Here's what we said, "Based on what has been observed early in the month, and continued low pressure troughing being indicated by the GEFS and the CFSv2, it appears that temperatures are likely to be near (+/- 2 degrees F) normal to slightly below normal (2-3 degrees F) this month."

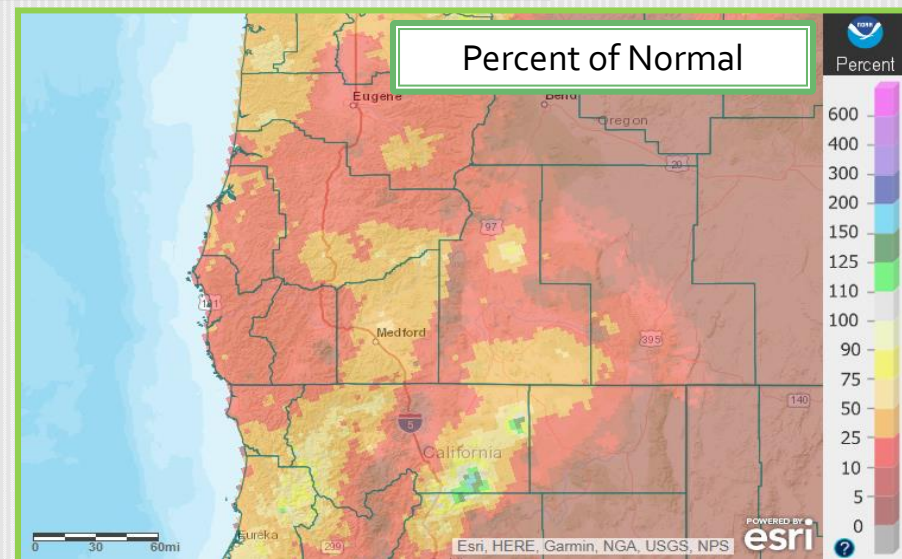
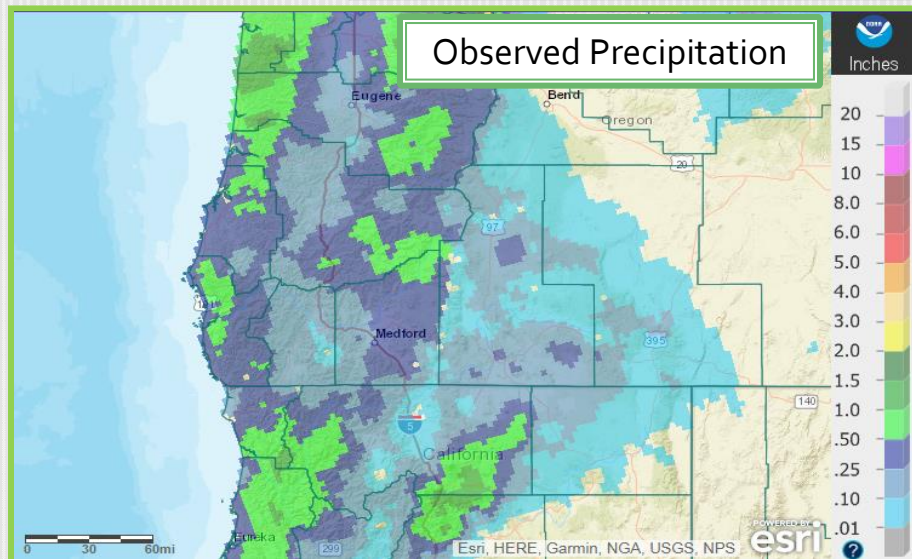


September 2018 *Observed* Precipitation



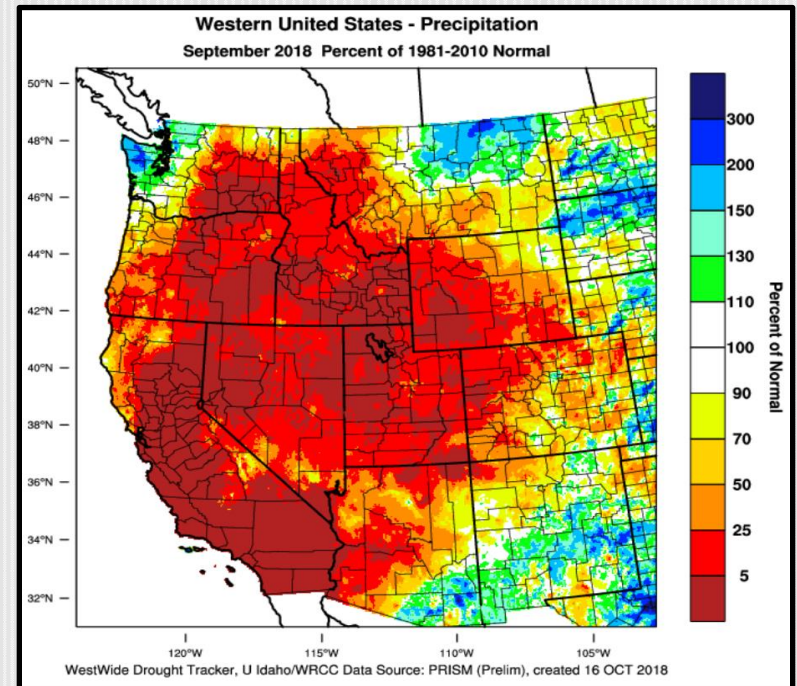
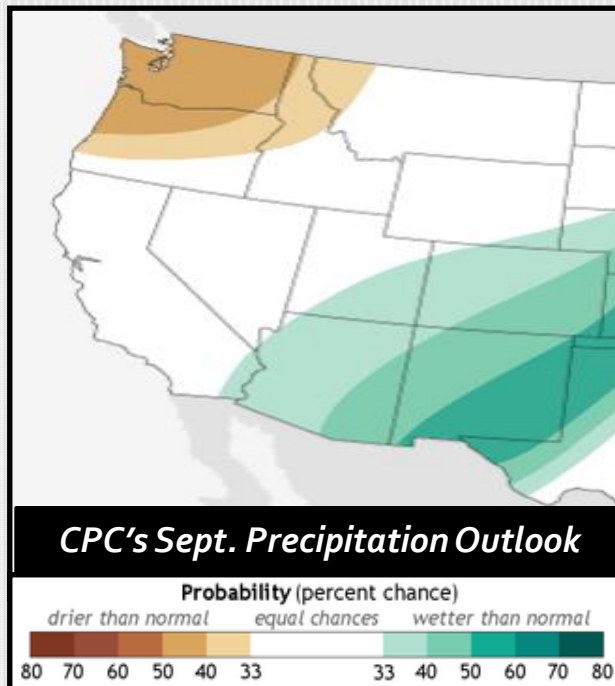
September Precipitation

	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
North Bend	0.50"	-1.08"	0.17"	22 nd
Roseburg	0.26"	-0.70"	0.19"	29 th
Medford	0.23"	-0.34"	0.22"	29 th
Klamath Falls	0.24"	-0.29"	0.18"	29 th
Montague, CA	0.01"	-0.63"	0.01"	12 th
Mt. Shasta City, CA	0.25"	-0.42"	0.14"	29 th
Alturas, CA	0.01"	-0.51"	0.01"	30 th



A Look Back at the Sept 2018 Precipitation Outlook

- **Was the forecast anomaly correct?** CPC's forecast for equal chances to below normal precipitation was not weighted dry enough. For our area they did provide the correct idea that California areas had a better chance of receiving near normal precipitation than did areas further north. However, our entire forecast area ended the month with below normal precipitation and more than half of the area was <25% of normal.
- **Was the expected impact correct?** Yes. We correctly forecast that water supplies would continue to be stressed further and that fire season would continue, though rain toward month's end would likely temper smoke impacts some. The Talent Irrigation District cut off water the customers 10 days earlier than normal on September 20th due to very low amounts of water in reservoirs.
- **Did our forecast improve upon the CPC forecast?** Yes. Our updated forecast did a good job detailing high confidence in drier than normal conditions across the entire forecast area and when precipitation we did get would generally occur. Again, please take note that we made our forecast mid-month, so that made it much easier for us.

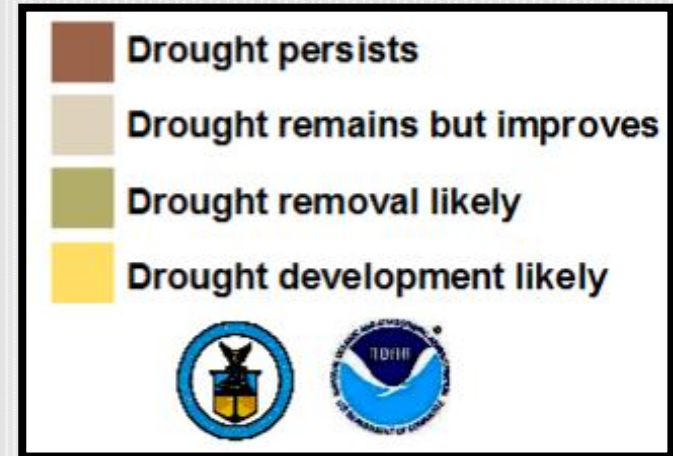
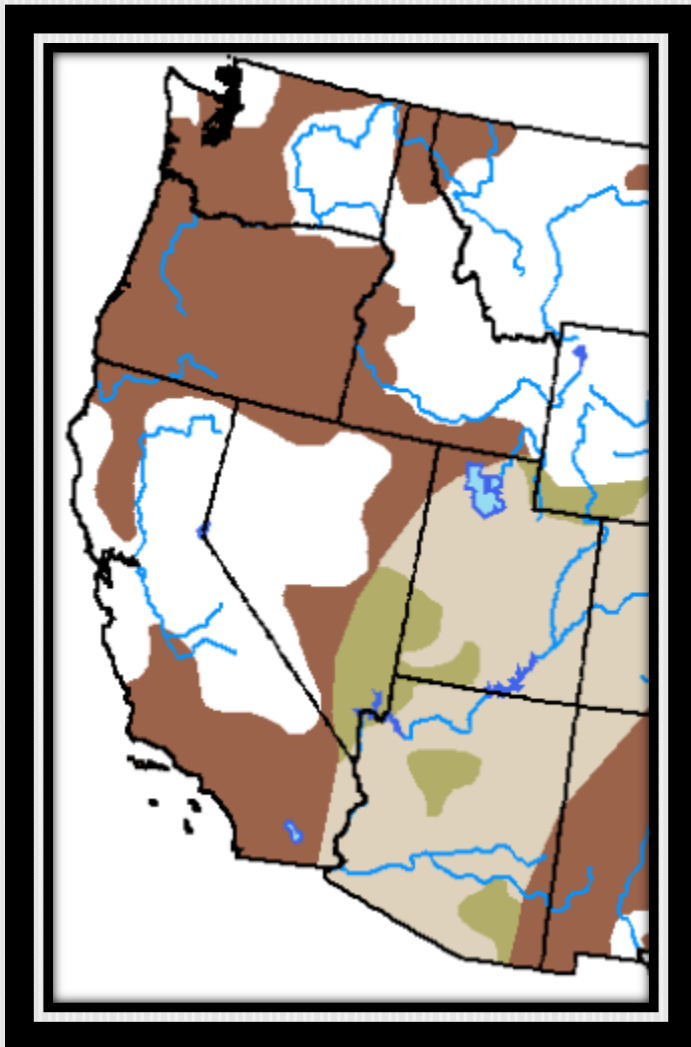


Crater Lake

	Average Max Temp (°F)	Average Min Temp (°F)	Total Precipitation	Total Snowfall	Snow Depth as of: 9/30/18	Highest Max/ Lowest Min
September	63.4°	35.3°	Trace	0.0"	0"	77° (28 th) / 26° (23 rd & 24 th)
Normal (1981-2010)	63.1°	36.1°	1.98"	3.3"	1"	N/A



Drought Outlook: October

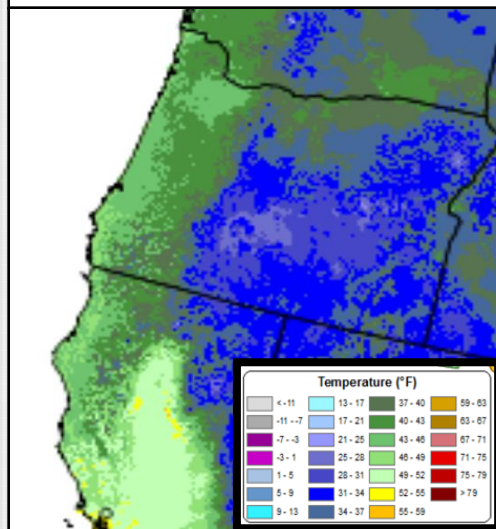


***Valid for October 2018
Released September 30, 2018***

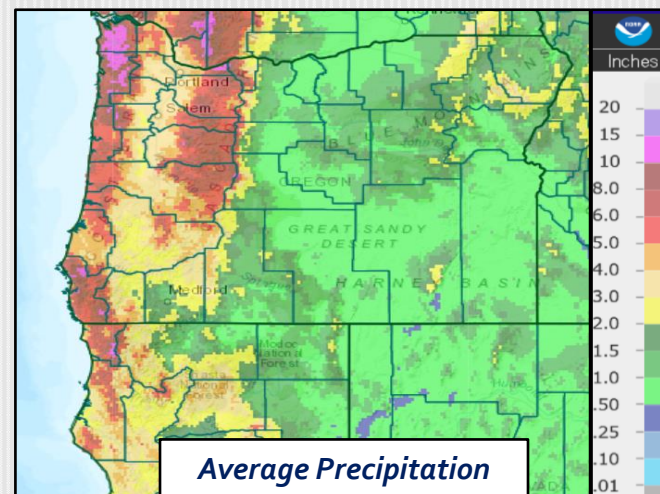
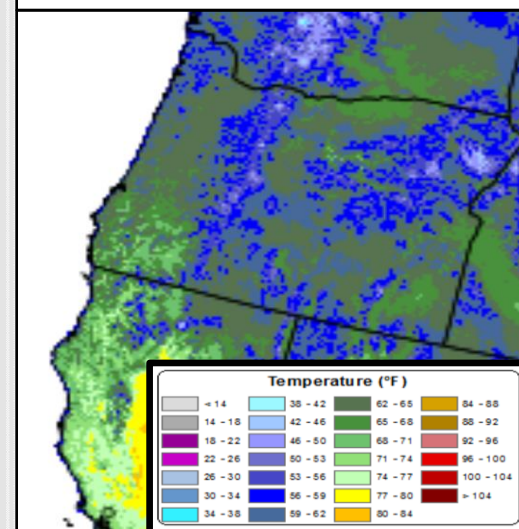
Looking Ahead: Normals for October (1981-2010)

October is the first month of the water year because it is the month when the weather usually turns definitively cooler and wetter for our forecast area. If fire season hasn't already ended, it almost certainly will end this month. Average low temperatures are in the 20s and 30s east of the Cascades, and in the upper 30s to 40s west of them. Average high temperatures are mainly in the 50s in the mountains, though colder on the peaks, where snow usually begins to accumulate. Most east side valley highs are in the 60s while, on the west side, 60s and lower 70s are normal. 5-10 inches of precipitation is normal for Curry County & the in the higher terrain of far western Siskiyou County, and 10-15" in the Curry mountains. Elsewhere, amounts vary greatly, with 0.5" -3" east of the Cascades, and 1" to 5" across much of the rest of the area.

Average Minimum Temperatures

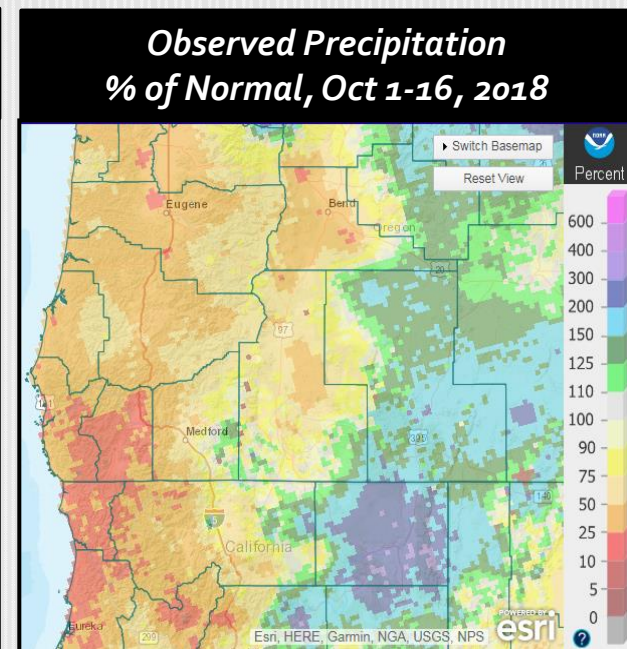
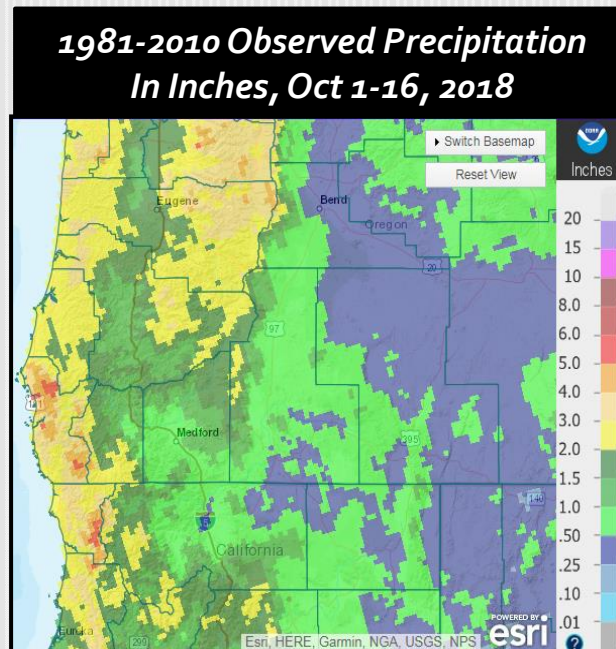
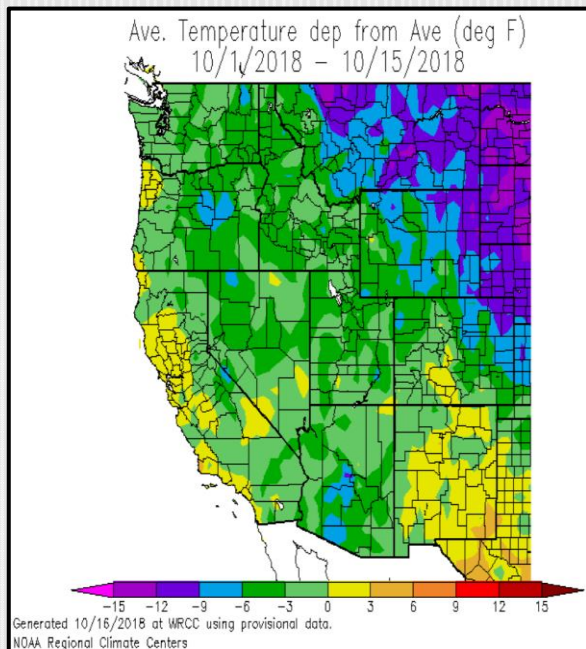


Average Maximum Temperatures



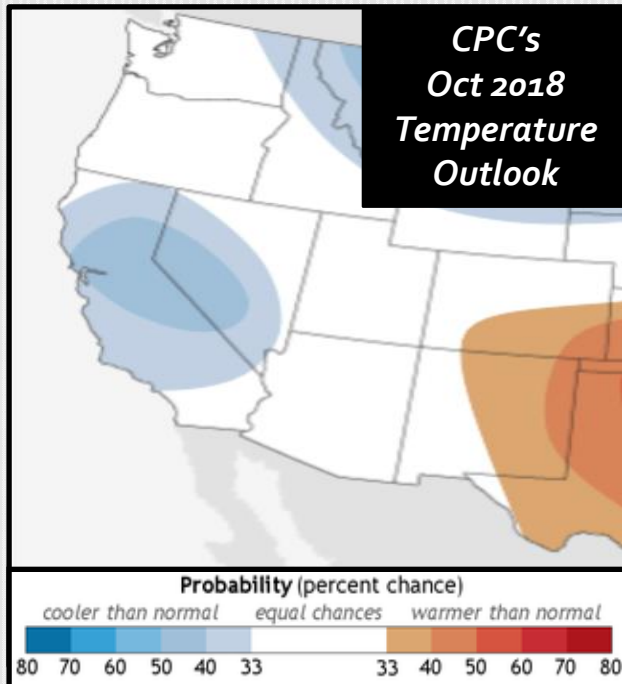
Observed Weather: Oct 1st-15th, 2018

Temperatures for the first half of October have been between 6 degrees below normal to 3 degrees above normal. The general situation in that, since low pressure brought substantial wetting rainfall to most of the forecast area, a major east wind event has resulted in the development of a very dry air mass, especially from the Cascades westward. This has mostly yielded colder than normal mornings. It should also be mentioned that the trough during the first week of the month did bring the first snow of the year to the higher mountains, but this is gone, except possibly above 10,000 foot elevations. Precipitation was substantial early this month for areas along and near the Cascades eastward and was enough in some areas to exceed the monthly normal. However, for areas along and near the coast and coastal ranges, precipitation remains below normal. This area usually gets much more precipitation than most areas to the east.



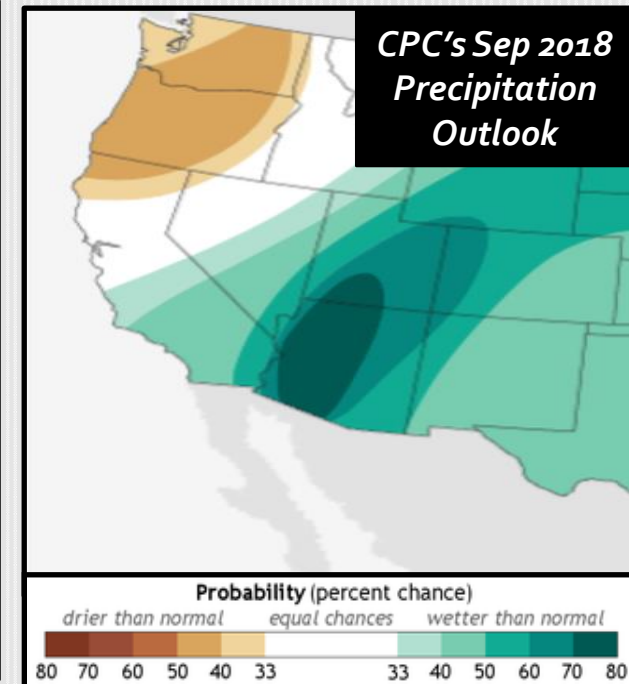
October 2018 Outlook

The official CPC forecast for October 2018 calls for increased chances for colder than normal temperatures across most of our California area and equal chances for above, near, or below normal temperatures for the rest of the area. The forecast indicates an increased chance of below average precipitation, especially away from Modoc County. Based on how the forecast looks as of 10/17/18, warmer than normal temperatures for most of the forecast area for the remainder of the month means that temperatures from the Cascades westward will probably be 1-3 degrees above normal for the month, though possibly greater from the coastal ranges westward. East of the Cascades, especially in Lake County, temperatures are likely to end the month 0-3 degrees below normal. It is likely to cool down across the area around the 26th per the GEFS. Precipitation is expected between the 23rd and 31st. Given what has already occurred this month, areas along, near, and east of the Cascades should finish the month with near to above normal precipitation. For areas along and near the coastal ranges precipitation is expected to finish below normal as amounts probably will not overcome current deficits.



**Expected Impact,
October 2018:**

October is typically a transition month, and that's what we expect to continue to see. The current dry air mass will maintain wildfire concerns through the 23rd, and stream flows will continue to be below average west of the Cascades. Frost/freeze will continue to end the growing season for most areas away from the coast and Umpqua Basin. Rain after the 23rd should diminish wildfire concerns, though an east wind event is possible at the very end of Oct to early Nov.



*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 September 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 September 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