

National Weather Service Medford

# September 2017 Climate Summary



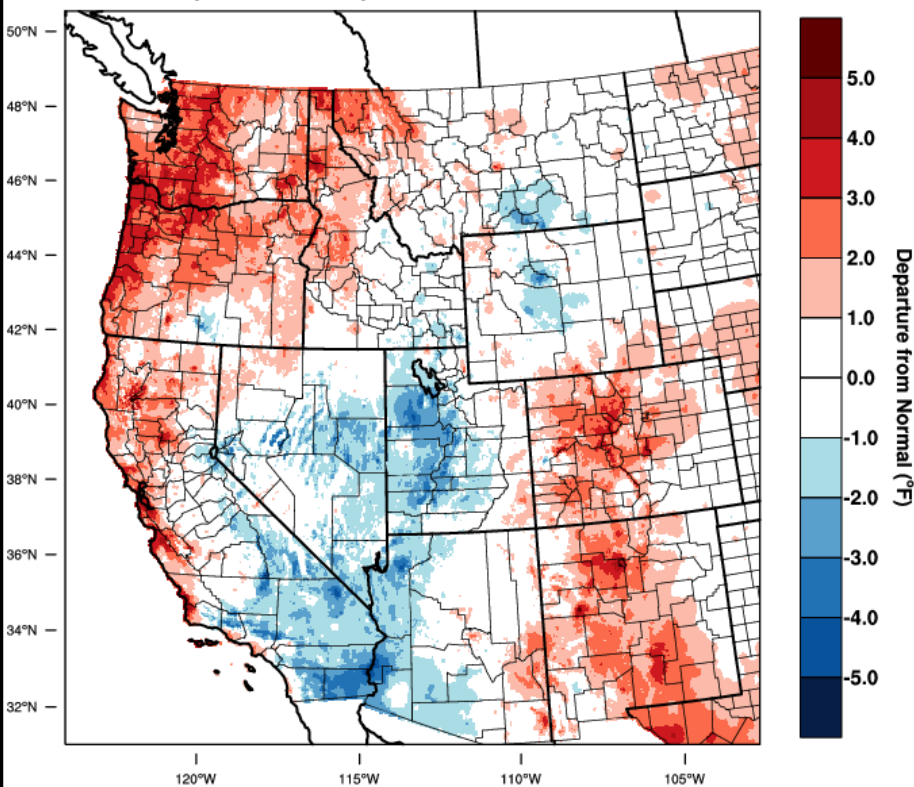
\*These data are preliminary and have not undergone final QC by NCEI. Therefore, these data are subject to revision. Final and certified climate data can be accessed at the [National Centers for Environmental Information \(NCEI\)](#).

# September 2017 Weather Review

The hot, dry and very smoky conditions from the end of August continued into the first week of September 2017. Low visibilities and very unhealthy air quality due to thick smoke from area wildfires continued to affect many of the valleys west of the Cascades during this first week. Afterwards, moisture and energy associated with the remnants of Hurricane Lidia drifted into the forecast area, bringing another round of thunderstorms. Fortunately, given the tropical nature of the moisture, these thunderstorms also produced wetting rains. Many of the wildfires received beneficial rainfall from these thunderstorms and the rains helped to dampen fire activity and improve air quality. Smoke and low visibilities briefly returned once the storms moved through. By the middle of the month, the first Fall-like system of the season brought much-welcomed relief from warm temperatures and dry conditions. Temperatures were as low as 10 to 15 degrees below normal and some low maximum temperature records were set. Crater Lake and similar elevations received the first snowfall of the season during this system. Once this system finally pushed east of the area, temperatures warmed as high pressure resumed control. During the last few days of the month, another low pressure moved over the area. This system was much drier than the mid-month system with the bulk of the precipitation falling along the coast and north of the Umpqua Divide.

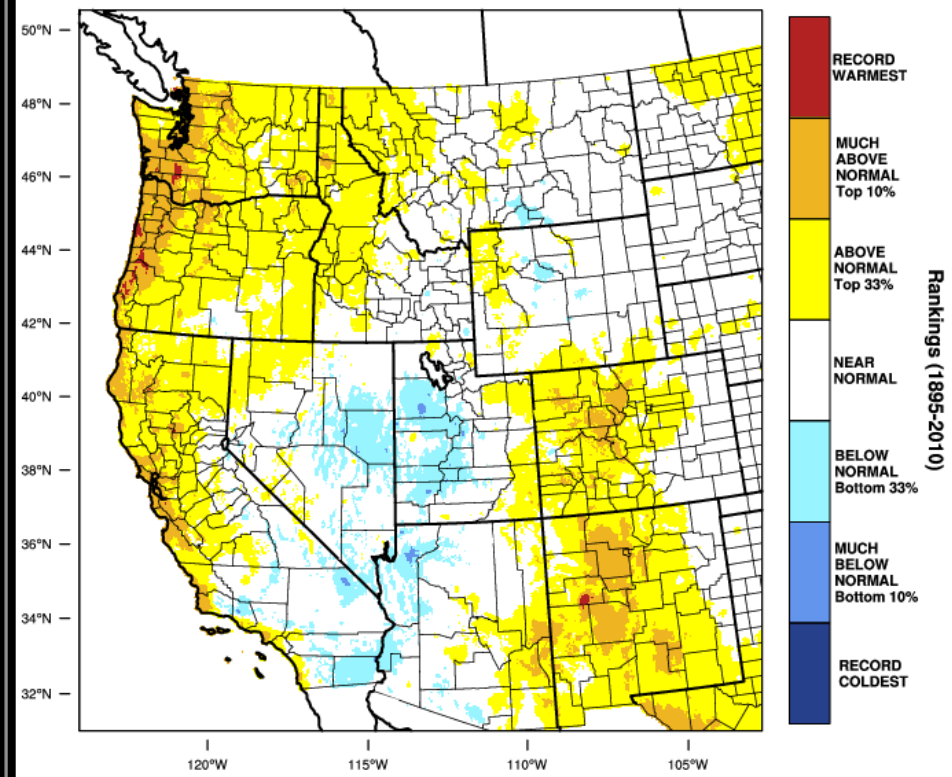
# September 2017 Observed Temperatures

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



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

Western United States - Mean Temperature  
September 2017 Percentile



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

# 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>
<b><i>North Bend</i></b>	60.0	<b>+2.6°</b>	68.3	<b>+3.5°</b>	51.7	<b>+1.7°</b>
<b><i>Roseburg</i></b>	67.2	<b>+2.3°</b>	79.6	<b>+1.0°</b>	54.7	<b>+3.5°</b>
<b><i>Medford</i></b>	67.5	<b>+0.7°</b>	81.5	<b>-2.0°</b>	53.5	<b>+3.5°</b>
<b><i>Klamath Falls</i></b>	59.1	<b>+1.7°</b>	75.9	<b>+0.1°</b>	42.2	<b>+3.1°</b>
<b><i>Montague, CA</i></b>	62.9	<b>+0.7°</b>	79.4	<b>-1.9°</b>	46.5	<b>+3.4°</b>
<b><i>Mt. Shasta City, CA</i></b>	63.0	<b>+2.5°</b>	79.0	<b>+1.0°</b>	46.9	<b>+3.9°</b>
<b><i>Alturas, CA</i></b>	59.2	<b>+2.9°</b>	77.8	<b>+0.2°</b>	40.6	<b>+5.6°</b>

# 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>87°</i>	<i>27<sup>th</sup></i>	<i>45°</i>	<i>22<sup>nd</sup></i>
<i>Roseburg</i>	<i>96°</i>	<i>1<sup>st</sup></i>	<i>42°</i>	<i>22<sup>nd</sup></i>
<i>Medford</i>	<i>105°</i>	<i>1<sup>st</sup></i>	<i>39°</i>	<i>22<sup>nd</sup></i>
<i>Klamath Falls</i>	<i>98°</i>	<i>5<sup>th</sup></i>	<i>25°</i>	<i>22<sup>nd</sup></i>
<i>Montague, CA</i>	<i>102°</i>	<i>2<sup>nd</sup></i>	<i>29°</i>	<i>22<sup>nd</sup></i>
<i>Mt. Shasta City, CA</i>	<i>101°</i>	<i>2<sup>nd</sup></i>	<i>31°</i>	<i>22<sup>nd</sup></i>
<i>Alturas, CA</i>	<i>100°</i>	<i>5<sup>th</sup></i>	<i>23°</i>	<i>23<sup>rd</sup></i>

# Record Temperatures

	Date	Record Low Max Temp	Old Record/Year
<b><u>Roseburg</u></b>	18 <sup>th</sup>	64°	65° / 2004
	20 <sup>th</sup>	61°	63° / 1932
	21 <sup>st</sup>	61°	Ties with 1945
<b><u>Medford</u></b>	21 <sup>st</sup>	59°	61° / 1945
<b><u>Klamath Falls</u></b>	18 <sup>th</sup>	55°	Ties with 2004
	21 <sup>st</sup>	54°	Ties with 2013
<b><u>Montague</u></b>	20 <sup>th</sup>	63°	Ties with 2004
	21 <sup>st</sup>	59°	60° / 2013
<b><u>Alturas</u></b>	21 <sup>st</sup>	52°	60° / 2013
	22 <sup>nd</sup>	55°	57° / 2016

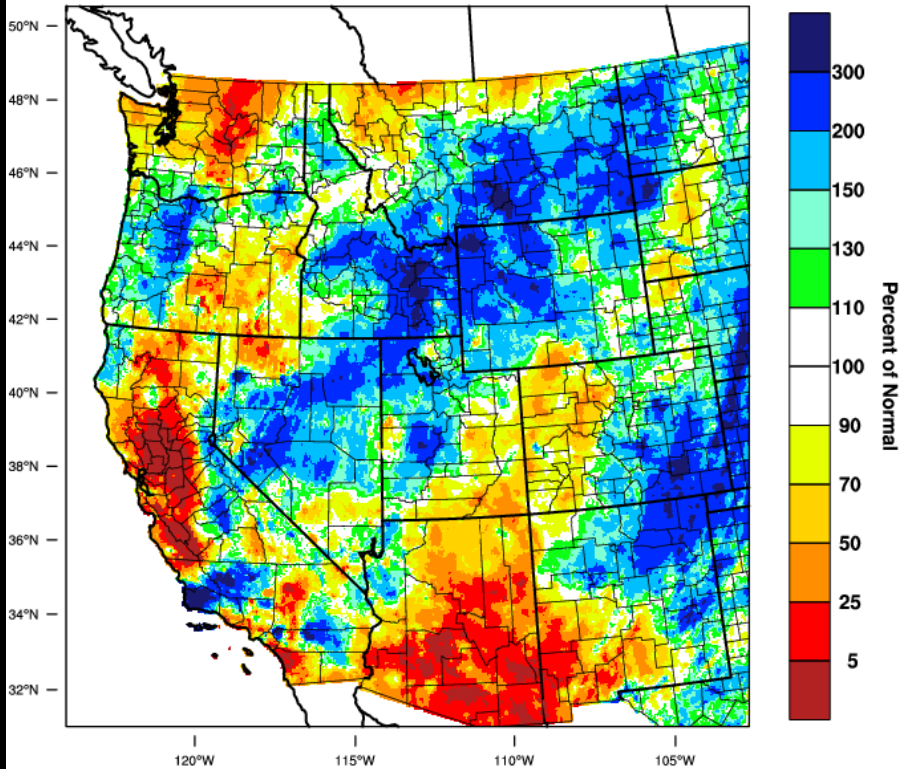
	Date	Record High Max Temp	Old Record/Year
<b><u>Klamath Falls</u></b>	5 <sup>th</sup>	98°	97° / 1955

	Date	Record Low Min Temp	Old Record/Year
<b><u>Klamath Falls</u></b>	22 <sup>nd</sup>	25°	26° / 1968
<b><u>Alturas</u></b>	23 <sup>rd</sup>	23°	Ties w/1993
<b><u>Mt Shasta City</u></b>	22 <sup>nd</sup>	31°	Ties with 1927
<b><u>Montague</u></b>	22 <sup>nd</sup>	29°	32° / 1968



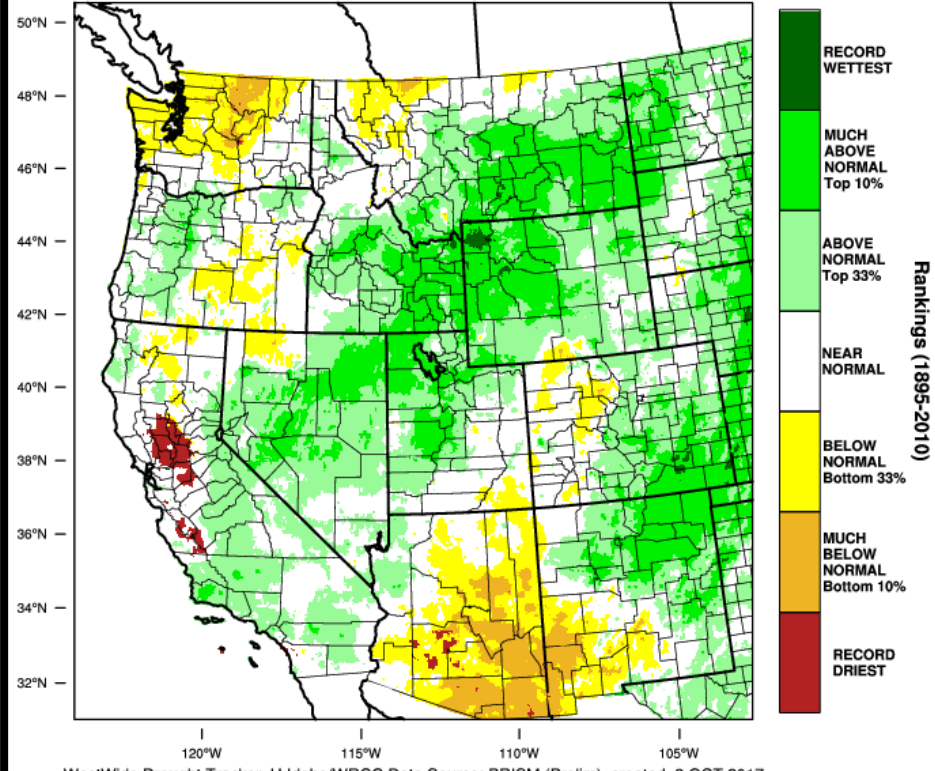
# September 2017 Observed Precipitation

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



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

Western United States - Precipitation  
September 2017 Percentile



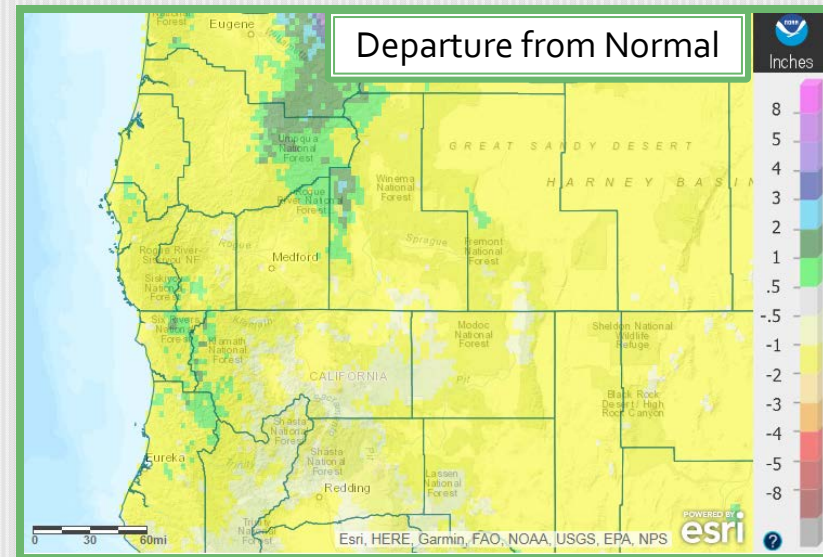
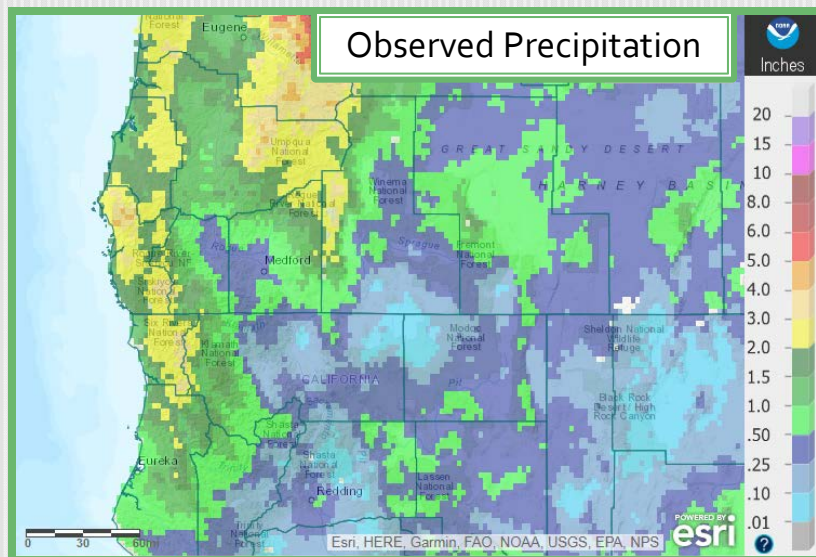
WestWide Drought Tracker, U Idaho/WRCRC Data Source: PRISM (Prelim), created 2 OCT 2017

# September Precipitation

	Total	Departure from Normal	Greatest 24-hr Total	Date(s)
<b>North Bend</b>	1.16"	-0.42"	0.32"	18 <sup>th</sup>
<b>Roseburg</b>	0.92"	-0.04"	0.46"	20 <sup>th</sup>
<b>Medford</b>	0.30"	-0.27"	0.13"	20 <sup>th</sup>
<b>Klamath Falls</b>	0.09"	-0.44"	0.04"	17 <sup>th</sup>
<b>Montague, CA</b>	0.07"	-0.57"	0.06"	7 <sup>th</sup>
<b>Mt. Shasta City, CA</b>	0.28"	-0.39"	0.27"	7 <sup>th</sup>
<b>Alturas, CA</b>	0.31"	-0.21"	0.18"	20 <sup>th</sup>

## Record Daily Precipitation

	New Record	Date	Old Record	Year
<b>Alturas</b>	0.07"	6 <sup>th</sup>	Ties	1978





# 2016-2017 Water Year Summary

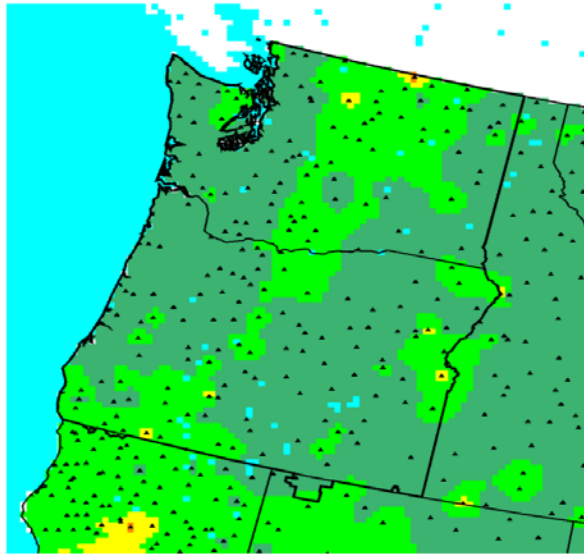
	2016-2017 / Rank	Record / Year
North Bend	82.53" / 7 <sup>th</sup>	90.20" / 1994-1995
Roseburg	43.30" / 5 <sup>th</sup>	49.86" / 1955-1956
Medford	25.21" / 11 <sup>th</sup>	34.47" / 1955-1956
Klamath Falls	12.63" / 14 <sup>th</sup>	18.96" / 1957-1958
Mt Shasta City	61.41" / 4 <sup>th</sup>	66.03" / 1982-1983
Montague	15.98" / 4 <sup>th</sup>	19.76" / 2005-2006
Alturas	15.94" / 1 <sup>st</sup>	New Record

The 2016-2017 Water Year was exceptionally wet thanks to the significant amount of precipitation received during the wet season. October 2016 was one of the wettest on record with many locations ranking in the top 5 in terms of precipitation. Although November and December were relatively average, precipitation totals were also above normal January through April.

# Fuel & Fire Potential Status as of October 2<sup>nd</sup>, 2017

Significant rainfall in late September, followed by cool, more seasonable weather, has resulted in much better overnight and morning RH recoveries. Fire danger and fire spread rates across the area are greatly reduced. Still, fire season is not over for most, as dryness is still sufficient to support ignitions and some fire spread, mostly during daylight hours, during warmer and drier periods, and during times of significant wind. October is one of the primary months when wind driven fires are a concern, primarily under strong north, east, or southwest winds. Until we get another round of wetting rainfall, fire season is expected to continue. That said, we predict the end of fire season to be around mid-month (roughly Oct 15<sup>th</sup>).

Northwest Observed Fire Danger Class: 02-Oct-17



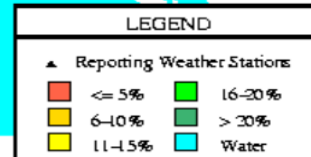
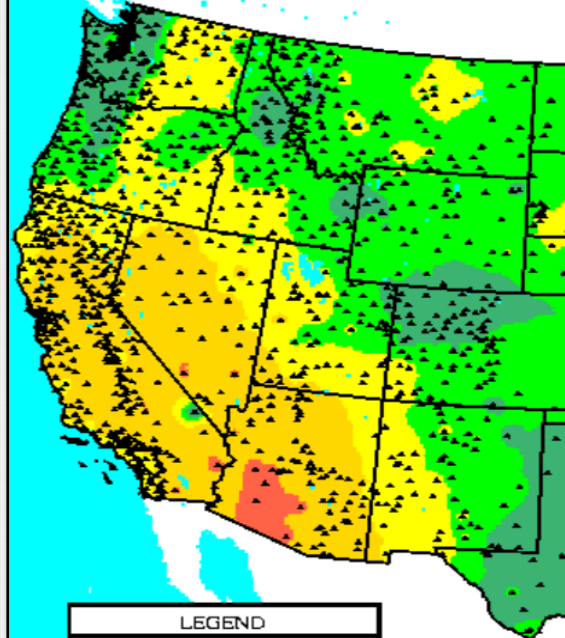
FireLab



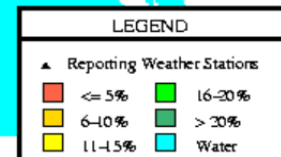
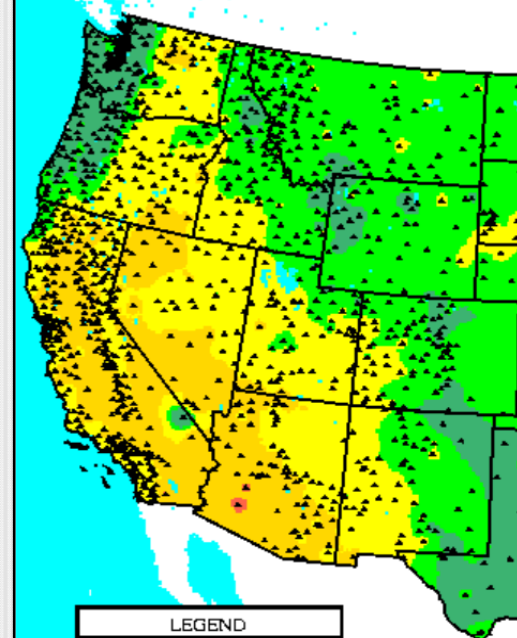
WFAS-MAPS National Interagency Fire Center



100 Hour Fuels as of 02-Oct-2017



1,000 Hour Fuels as of 02-Oct-2017

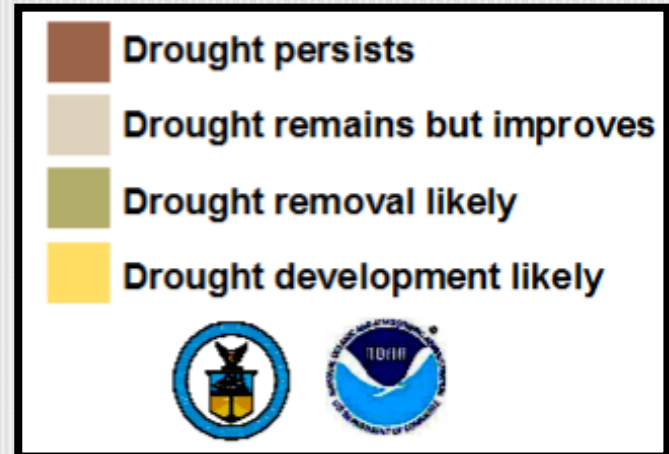
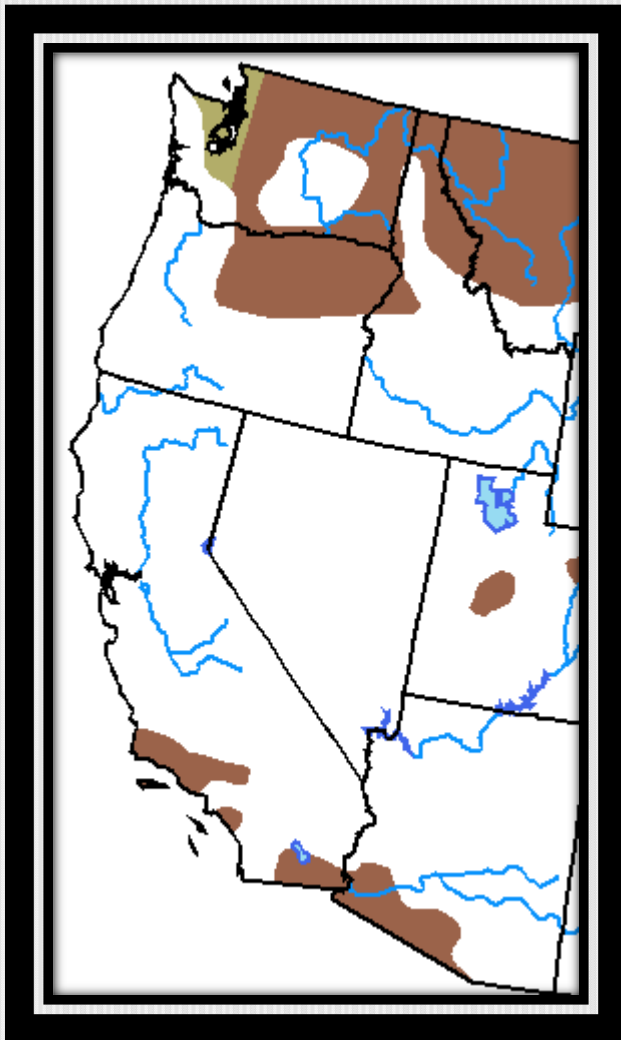


# Crater Lake

	Average Max Temp (°F)	Average Min Temp (°F)	Total Precipitation	Total Snowfall	Snow Depth as of: 9/30/17	Highest Max/ Lowest Min
September	61.2°	38.7°	3.77"	11.1"	0"	85° (5 <sup>th</sup> ) / 23° (21 <sup>st</sup> & 22 <sup>nd</sup> )
Normal (1981-2010)	63.1°	36.1°	1.98"	3.3"	1"	N/A



# Drought Outlook: October



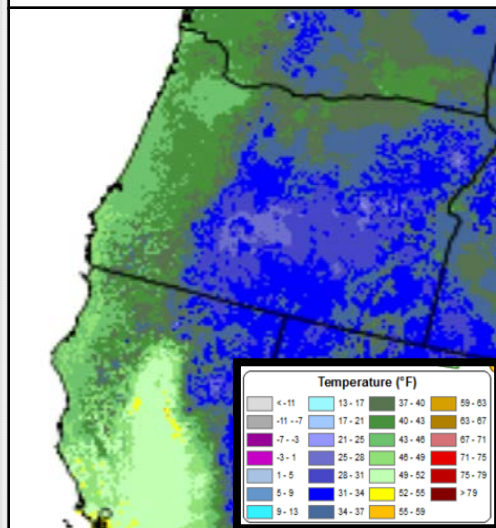
*Valid for October 2017*  
*Released September 30, 2017*



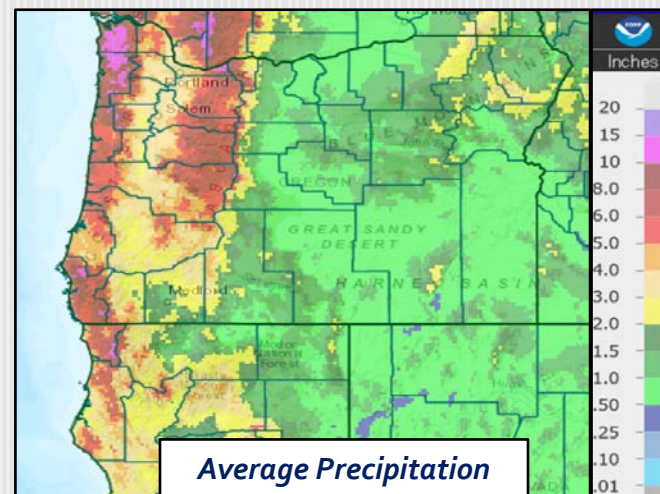
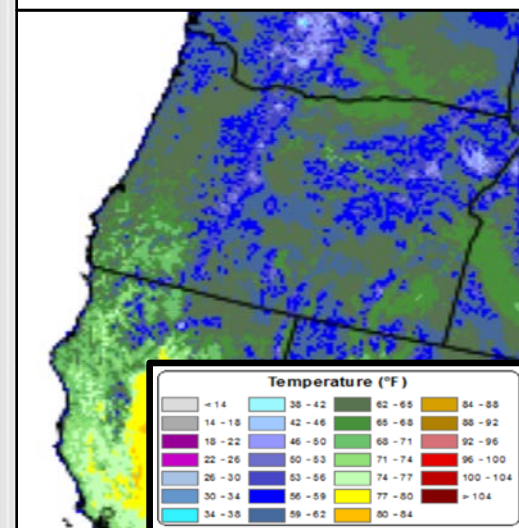
# Looking Ahead: Normals for October (1981-2010)

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*

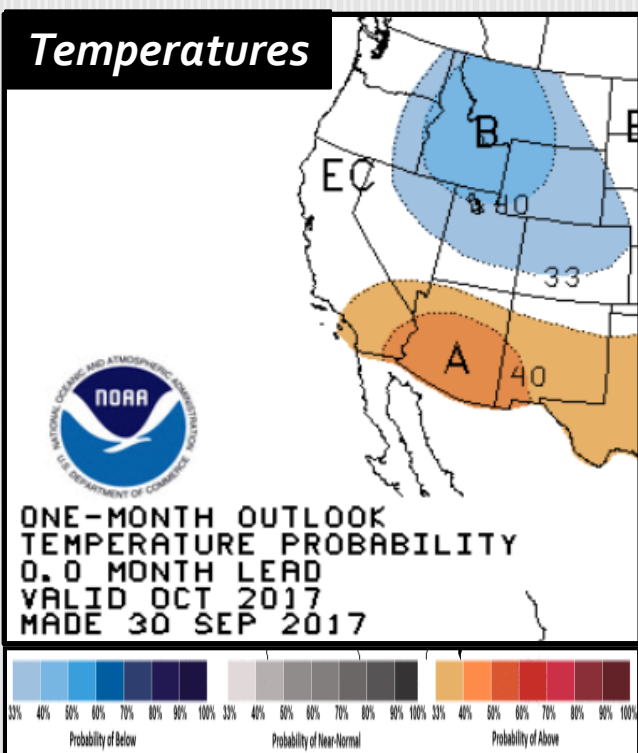


*Average Precipitation*



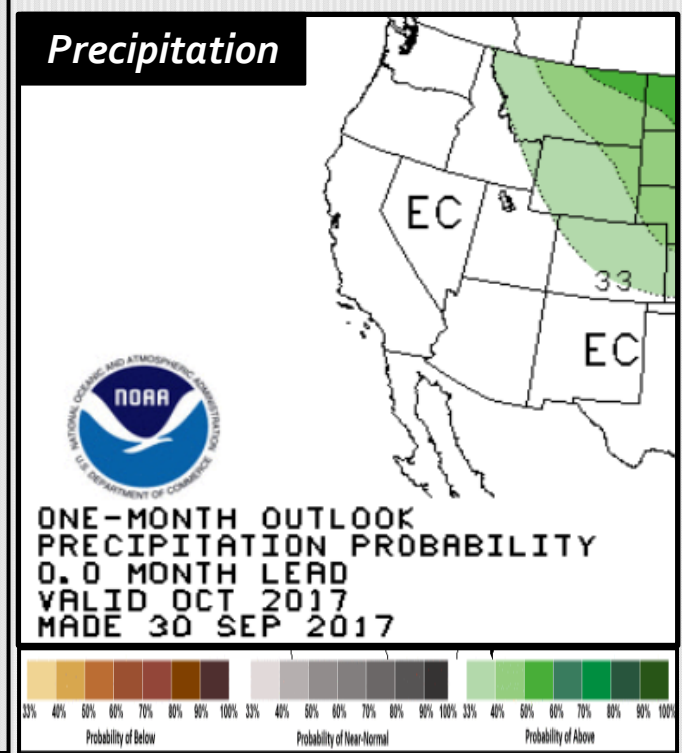
# October 2017 Outlook (Updated Oct 3<sup>rd</sup>)

The official CPC forecast for October 2017 predicts equal chances for below, near, and above normal temperatures and precipitation. Long range model guidance has varied wildly in predictions for this month as La Nina conditions develop, but above average global anomalies slow the change of the seasons. Early in the month, near to cooler than normal temperatures are expected due to a general northwesterly through easterly flow, except along the coast, where the combination of warm downslope wind days and above average sea surface temperatures will increase chances for warmer than normal temperatures. There has been fairly strong consistency in the forecast for drier than normal conditions for the early portion of the month. There has also been good model consistency in wetter than normal conditions near the middle of this month, with no clear signal for the month's end. Temperature anomalies for the 2<sup>nd</sup> half of the month are also uncertain.



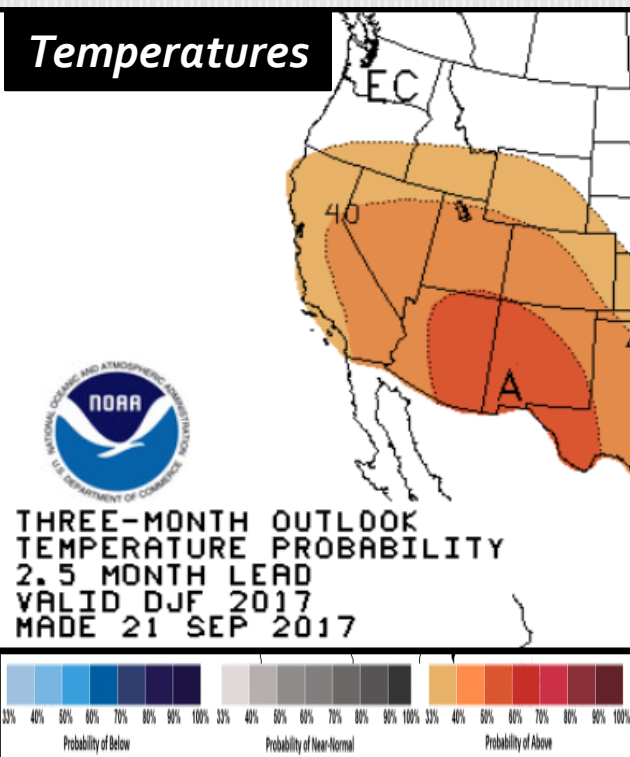
**Expected Impact, Oct 2017:**

The forecast for this month increases the chance for west side frost and freezing conditions affecting agriculture early in the month. It also means that fire season is likely to come to an end around mid-month due to wetness and seasonality. Periods of gusty winds are likely, as are warm days along and near the coast. Some mountain snow is expected around mid-month. La Nina coolness and mountain snow impacts typically begin to arrive in November from the Cascades westward.



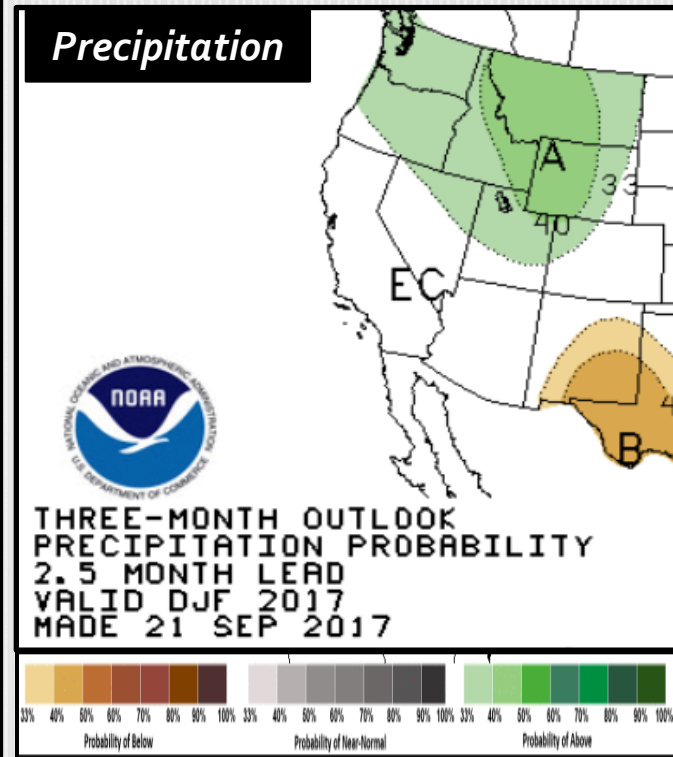
# 2017-18 Winter Season (DJF) Outlook

The official CPC forecast for the winter months of December, January, and February, combined, is for slightly increased chances for above normal temperatures over roughly the southeastern half of the forecast area, and slightly increased chances for above normal precipitation over the northeastern most portion of the forecast area. The Climate Prediction Center currently has a La Nina Watch in effect, which indicates a 55-60% chance of La Nina conditions to develop during the fall and winter of 2017-18. When averaged together, La Nina for the Medford County Warning Area usually results in cooler and wetter than normal conditions in the winter, with a greatly increased chance for near to above normal snowpack accumulating. The official forecast reflects the combination of long term climate warming trends continuing, and that the La Nina expected to develop is likely to be weak. The Pacific Decadal Oscillation is currently neutral.



**Expected Impact:**

Overall, the forecast indicates that our winter is most likely to be slightly warmer than normal and could be wetter than normal. Above average sea surface temperatures in most of the Pacific Ocean and La Nina SSTs in the tropics may increase the chances for storms this winter to pack more moisture than usual when they do come. Snow levels could also be higher, in general, due to warmer SSTs and temperatures, but higher precipitation rates can often lower snow levels during periods of exceptionally intense precipitation.



# \*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: 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