

# **The Month In Review**

**June 2018**

National Weather Service  
Pendleton, Oregon

# June, 2018 Climate Summary

The month of June can be summarized as near to slightly cooler than normal with a few thunderstorms during the month. There were a few very warm days. For example, Pendleton, OR reached 91 on the 20<sup>th</sup> and 21<sup>st</sup>. Normally We would see our first 100+ degrees temperature reading in the Month of June, but this June did not have any extreme temperatures, high or low. More details of the CWA temperatures and departures from normal later in the presentation. Rainfall amounts were below normal overall. It was also the month where we had our first wildfire incident in the CWA, which required an IMET dispatch. There were no records broken in June, 2018 since there were no real extremes in temperature or precipitation. There was no snow reported anywhere during the month.



**Wildfire Near Prosser,  
WA**



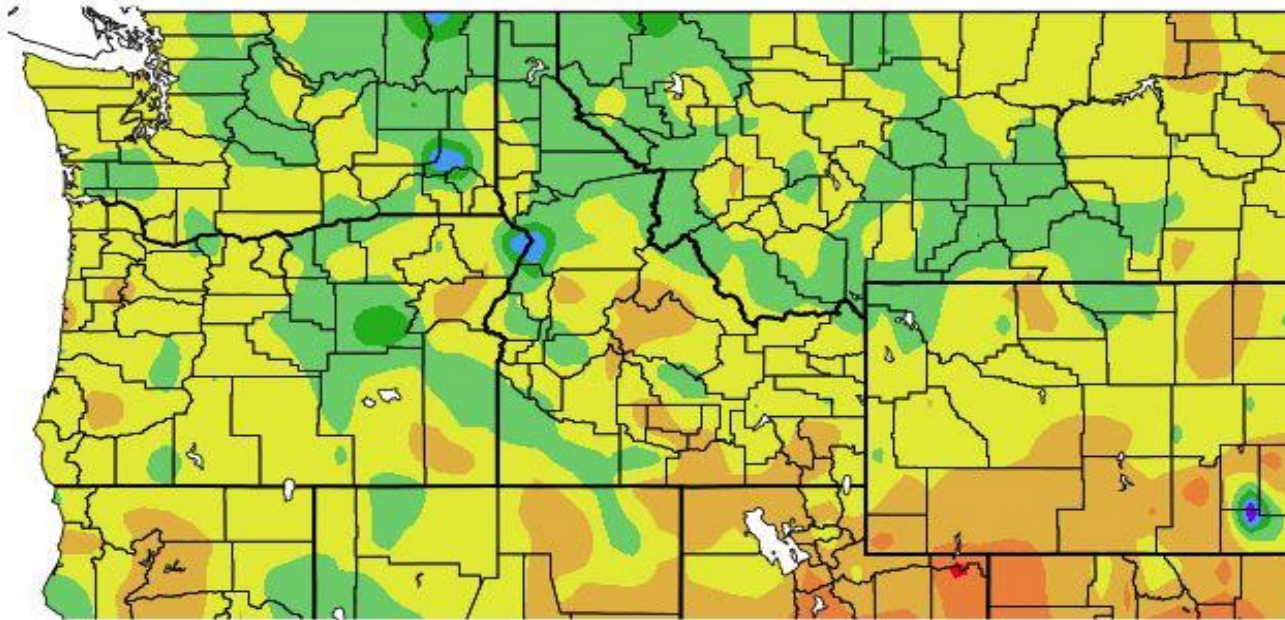
**Frequent Lightning Near  
Pendleton, OR.**



**Warm Day Over The Lower  
Columbia Basin, with a  
growing cumulonimbus  
cloud in the distance.**

# June 2018 Departure from Normal Temperatures

Departure from Normal Temperature (F)  
6/1/2018 – 6/30/2018



Generated 7/2/2018 at HPRCC using provisional data.

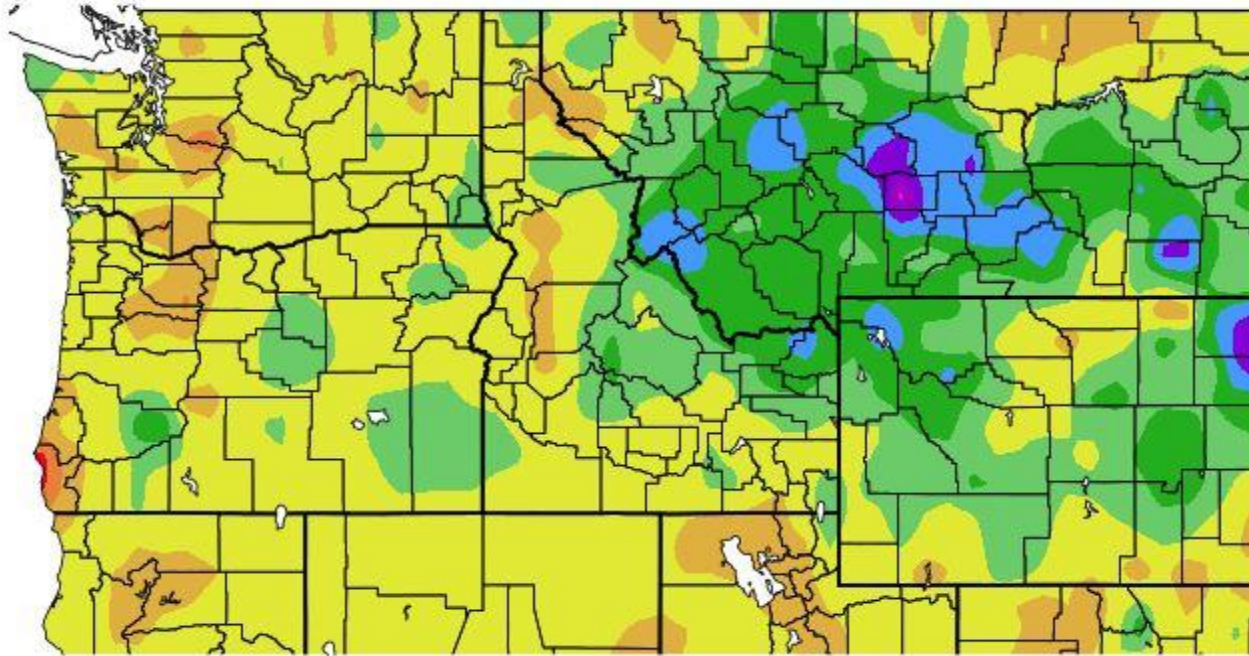
NOAA Regional Climate Centers

**As the map shows, the Pacific Northwest and CWA had Near to slightly below normal average temperatures for the month.**



# June 2018 Departure from Normal Precipitation

Departure from Normal Precipitation (in)  
6/1/2018 – 6/30/2018



Generated 7/2/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

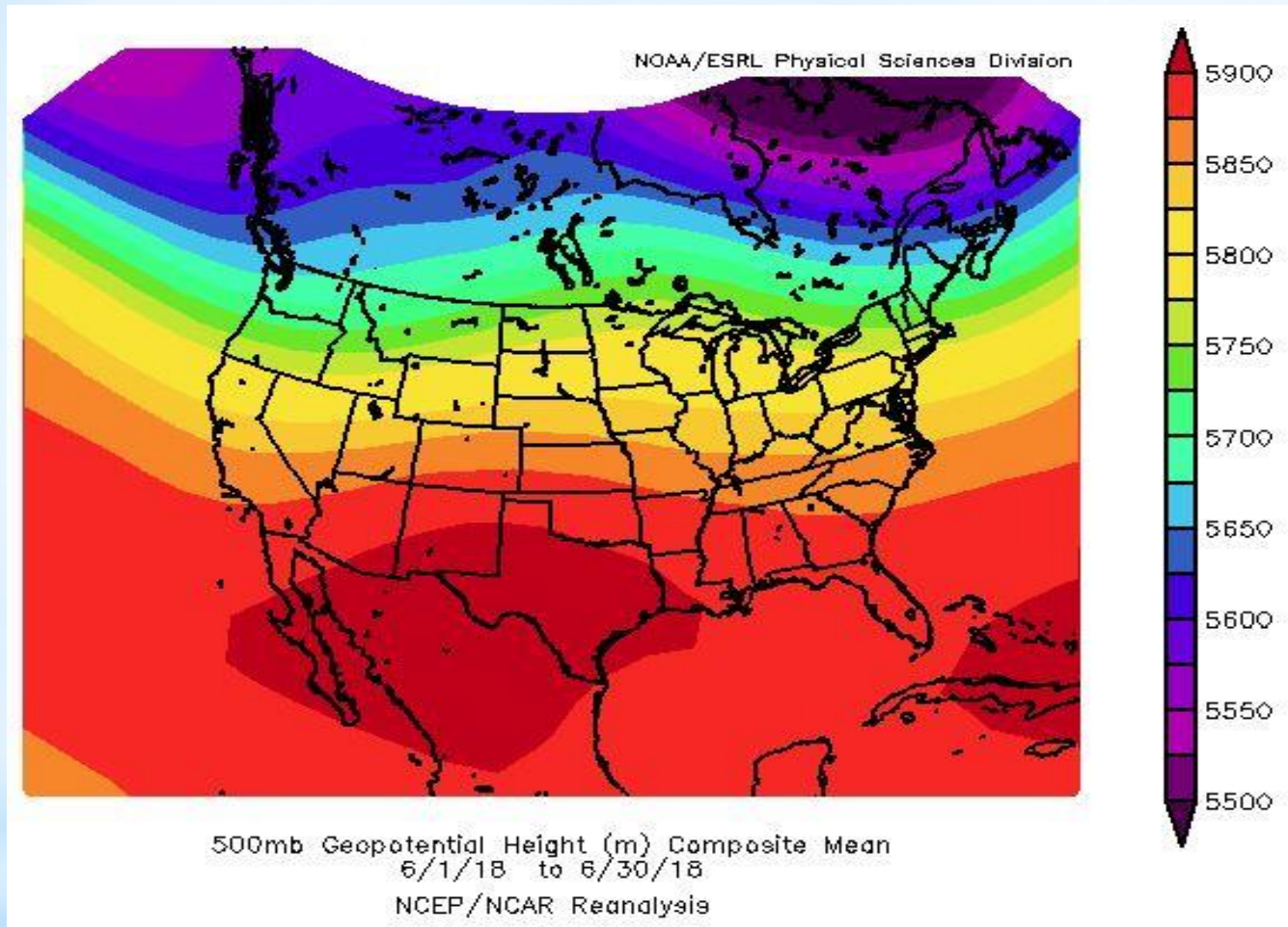
**The departure from average precipitation was near normal overall on average.**

# June 2018 Departures from normal for select cites

|                   | Max T | Max T D | Min T | Min T D | Ave T | Ave T D | PCPN    | PCPN D  |
|-------------------|-------|---------|-------|---------|-------|---------|---------|---------|
| Yakima            | 80.9  | 1.4     | 48.5  | 0.2     | 64.7  | 0.8     | 0.53    | -0.09   |
| Kennewick         | 82.0  | 0.4     | 56.6  | 0.5     | 69.3  | 0.5     | 0.08    | -0.43   |
| Walla Walla       | 80.0  | 1.2     | 55.4  | 1.2     | 67.7  | 1.2     | 0.20    | -1.08   |
| The Dalles        | 81.4  | 2.3     | 55.9  | 1.1     | 68.7  | 1.7     | 0.45    | -0.52   |
| Redmond           | 79.8  | 3.7     | 42.8  | 1.8     | 61.3  | 2.8     | 0.61    | -0.03   |
| Pendleton Airport | 79.9  | 1.7     | 50.2  | -1.3    | 65.0  | 0.1     | 0.42    | -0.56   |
| La Grande         | 72.4  | -2.3    | 47.9  | -0.8    | 60.2  | -1.6    | Missing | Missing |

The data above shows that most locations were slightly warmer than normal, but the precipitation shows below normal values for the month. For the time of year, the average for June was near to slightly cooler than the average. May was much warmer than average in comparison for that time of the year.

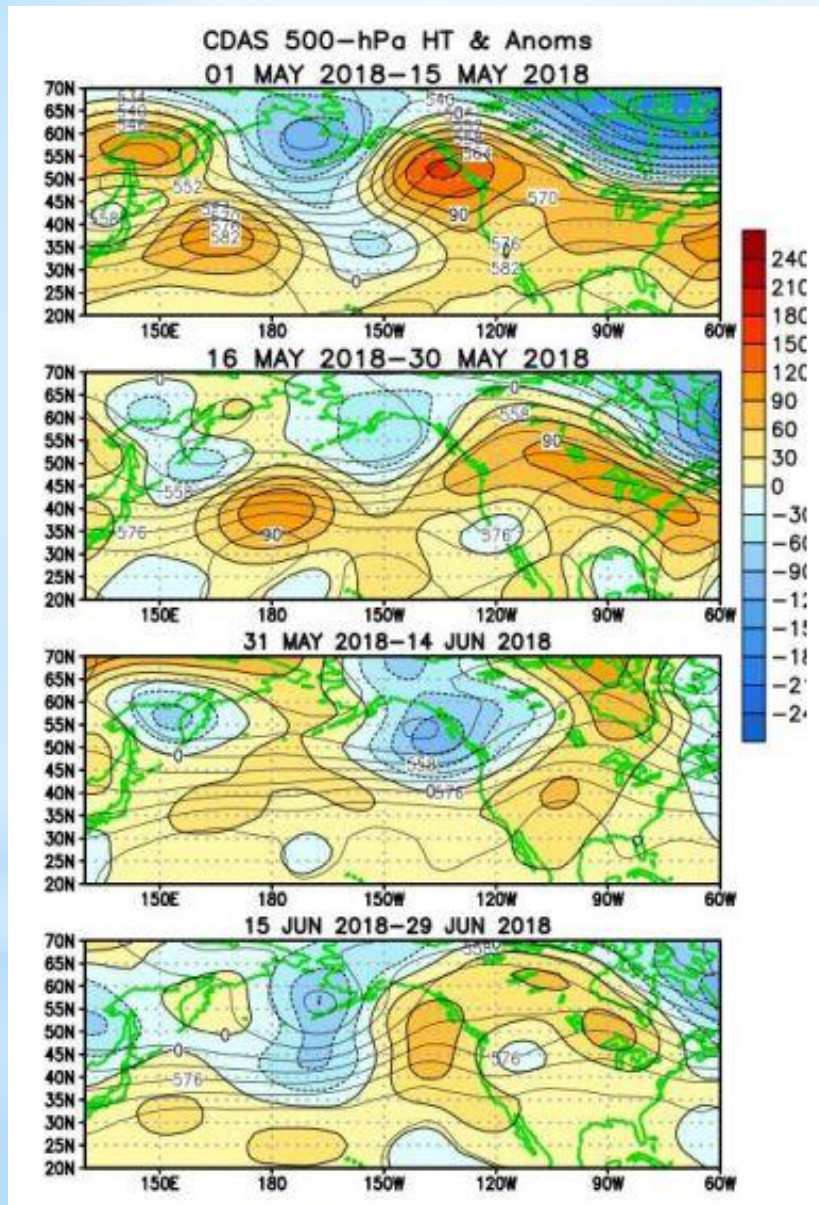
# June 2018 Average 500 MB Weather Pattern



The image above shows an overall average trough pattern at 500 MB for June, 2018. However, the trough is not very amplified which resulted in closer to normal temperatures rather than much above or below normal temperatures. The trough also means that there were some weather systems and their upper trough that moved through the region, resulting in more clouds and cooler days.



# More Detailed 500 MB Plots for May & June, 2018



This graphic shows a bi-weekly comparison of the 500 mb weather pattern beginning on May 1<sup>st</sup> and ending at the end of June. Land boundaries are in green.

The first two images from the top show May to have an upper ridge through the month. The bottom two images indicate, first, an early cool period, with an upper 500 mb level trough, but then the latter half of June had an amplified ridge over the region. These two periods in June oppose each other resulting in closer to normal average temperatures and precipitation for the month rather than having large extremes in temperature or precipitation.

# Significant Weather Events for June, 2018

During the month of June, 2018, all of the weather hazards that required a Local Storm Report (LSR) were due to thunderstorm activity, and the only hazard was hail.

| PRELIMINARY LOCAL STORM REPORT   |             |                     |                |                 |
|--|-------------|---------------------|----------------|-----------------|
| NATIONAL WEATHER SERVICE PENDLETON OR  |             |                     |                |                 |
| 507 PM PDT SUN JUN 3 2018  |             |                     |                |                 |
| ..TIME...  | ...EVENT... | ...CITY LOCATION... | ...LAT.LON...  |                 |
| ..DATE...  | ....MAG.... | ..COUNTY LOCATION.. | ST..           | ....SOURCE....  |
| ..REMARKS..  |             |                     |                |                 |
| 0455 PM  | HAIL        | NNW UKIAH           | 45.14N 118.93W |                 |
| 06/03/2018   | M0.25 INCH  | UMATILLA            | OR             | TRAINED SPOTTER |
| BRIEF HEAVY RAIN AND GUST TO 25 MPH ALSO REPORTED.   |             |                     |                |                 |
| 0500 PM  | HAIL        | 10 N UKIAH          | 45.28N 118.93W |                 |
| 06/03/2018   | E0.50 INCH  | UMATILLA            | OR             | PUBLIC          |
| MARBLE SIZED HAIL IN ALBEE. REPORTED VIA SOCIAL MEDIA.   |             |                     |                |                 |
| 1206 PM  | HAIL        | W ENTERPRISE        | 45.43N 117.28W |                 |
| 06/07/2018   | M0.50 INCH  | WALLOWA             | OR             | TRAINED SPOTTER |
| 0442 PM  | HAIL        | 1 NE REDMOND        | 44.27N 121.16W |                 |
| 06/20/2018   | M0.25 INCH  | DESCHUTES           | OR             | TRAINED SPOTTER |
| TRAINED SPOTTER RELAYED A REPORT FROM A FELLOW HAM OPERATOR, OF 1/4 INCH SIZED HAIL AND HEAVY RAIN WITH GUSTY WINDS. |             |                     |                |                 |
| 0735 PM  | HAIL        | 3 SSW WALLOWA       | 45.54N 117.56W |                 |
| 06/20/2018   | M0.88 INCH  | WALLOWA             | OR             | TRAINED SPOTTER |
| OBSERVER REPORTED A HEAVY, BRIEF SHOWER OF HAIL WITH THE MAJORITY ABOUT DIME SIZED WITH NICKLE SIZED MIXED IN.       |             |                     |                |                 |

Thunderstorms with moderate to large size hail occurred on June 3<sup>rd</sup>, 7<sup>th</sup>, and the 20<sup>th</sup>. All of the hazards were hail during thunderstorms during the month.



**Lightning from a thunderstorm Near Pendleton, OR on June 20<sup>th</sup>, 2018.**



# June, 2018 Observed Monthly Max & Min Temperatures

| Location        | Highest Maximum Temperature | Lowest Minimum Temperature |
|-----------------|-----------------------------|----------------------------|
| Pendleton, OR   | 93                          | 39                         |
| Redmond, OR     | 95                          | 27                         |
| Pasco, WA       | 95                          | 39                         |
| Yakima, WA      | 93                          | 35                         |
| Walla Walla, WA | 93                          | 44                         |
| Bend, OR        | 91                          | 32                         |
| Ellensburg, WA  | 93                          | 44                         |
| Hermiston, OR   | 98                          | 43                         |
| John Day, OR    | 86                          | 34                         |
| La Grande, OR   | 88                          | 35                         |
| The Dalles, OR  | 99                          | 43                         |
| MT Adams RS, WA | 87                          | 32                         |
|                 |                             |                            |

**These values are close to the highest and lowest values in May, 2018**

# June 2018, Monthly Total Precipitation and Snowfall Totals

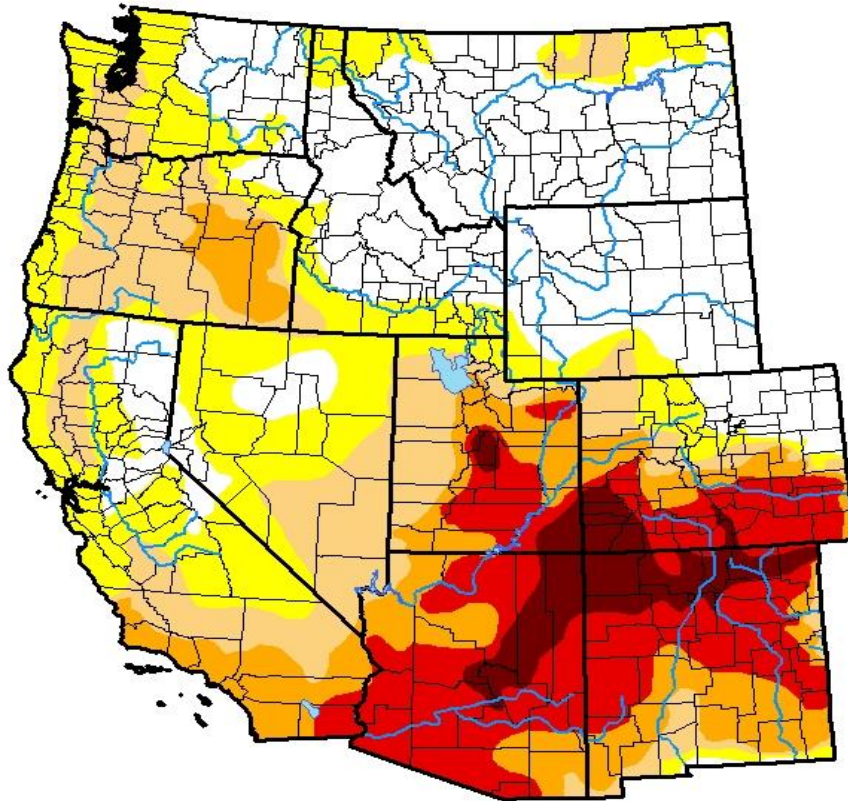
| Location        | Total Monthly Precip | Total Snowfall |
|-----------------|----------------------|----------------|
| Pendleton, OR   | 0.56                 | 0              |
| Redmond, OR     | 0.61                 | 0              |
| Pasco, WA       | 0.11                 | 0              |
| Yakima, WA      | 0.53                 | 0              |
| Walla Walla, WA | 0.20                 | 0              |
| Bend, OR        | 0.35                 | 0              |
| Ellensburg, WA  | 0.20                 | 0              |
| Hermiston, OR   | 0.14                 | 0              |
| John Day, OR    | 1.01                 | 0              |
| La Grande, OR   | 1.50                 | 0              |
| The Dalles, OR  | 0.45                 | 0              |
| Mt Adams RS, WA | 0.48                 | 0              |

**The higher values (greater than 0.50) were likely due to a thunderstorm cell moving directly over that station.**

# End of June, 2018 - Current Drought Monitor

## U.S. Drought Monitor West

**June 26, 2018**  
(Released Thursday, Jun. 28, 2018)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

|   | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|---|-------|-------|-------|-------|-------|------|
| <b>Current</b>                              | 30.59 | 69.41 | 47.99 | 31.42 | 18.70 | 4.65 |
| <b>Last Week</b><br>06-19-2018              | 33.21 | 66.79 | 44.55 | 31.70 | 18.67 | 4.33 |
| <b>3 Months Ago</b><br>03-27-2018           | 34.17 | 65.83 | 43.34 | 27.02 | 11.53 | 0.00 |
| <b>Start of Calendar Year</b><br>01-02-2018 | 48.76 | 51.24 | 29.03 | 8.60  | 1.52  | 0.00 |
| <b>Start of Water Year</b><br>09-26-2017    | 55.72 | 44.28 | 21.01 | 8.72  | 5.30  | 2.17 |
| <b>One Year Ago</b><br>06-27-2017           | 79.51 | 20.49 | 9.85  | 3.28  | 0.84  | 0.00 |

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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NCEI/NOAA

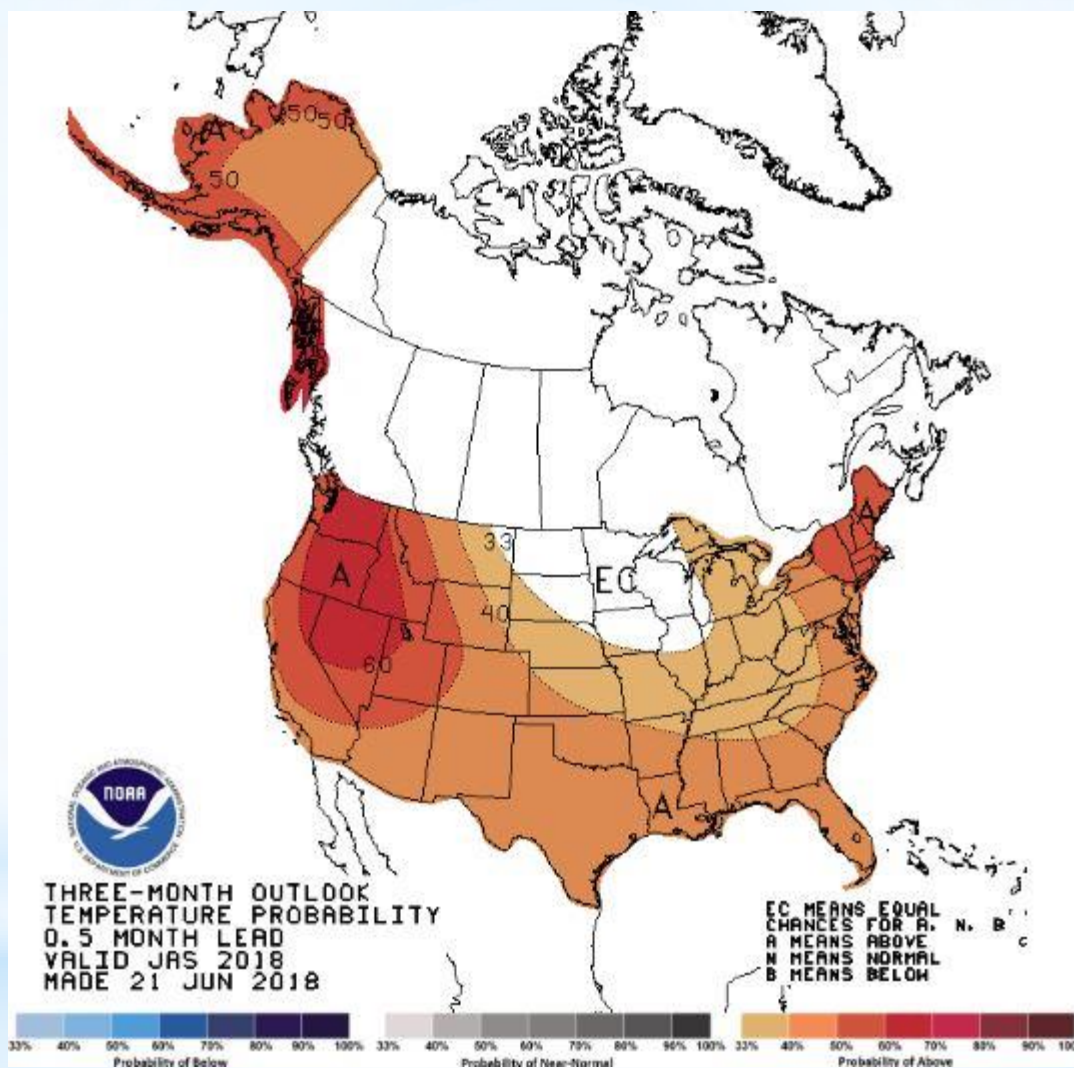


<http://droughtmonitor.unl.edu/>

At the end of June (June 26<sup>th</sup>, 2018) the northeast half of the forecast area (northeast OR / southeast WA) were near or at normal, while the southwest portion of the forecast area has mostly a moderate to severe drought.

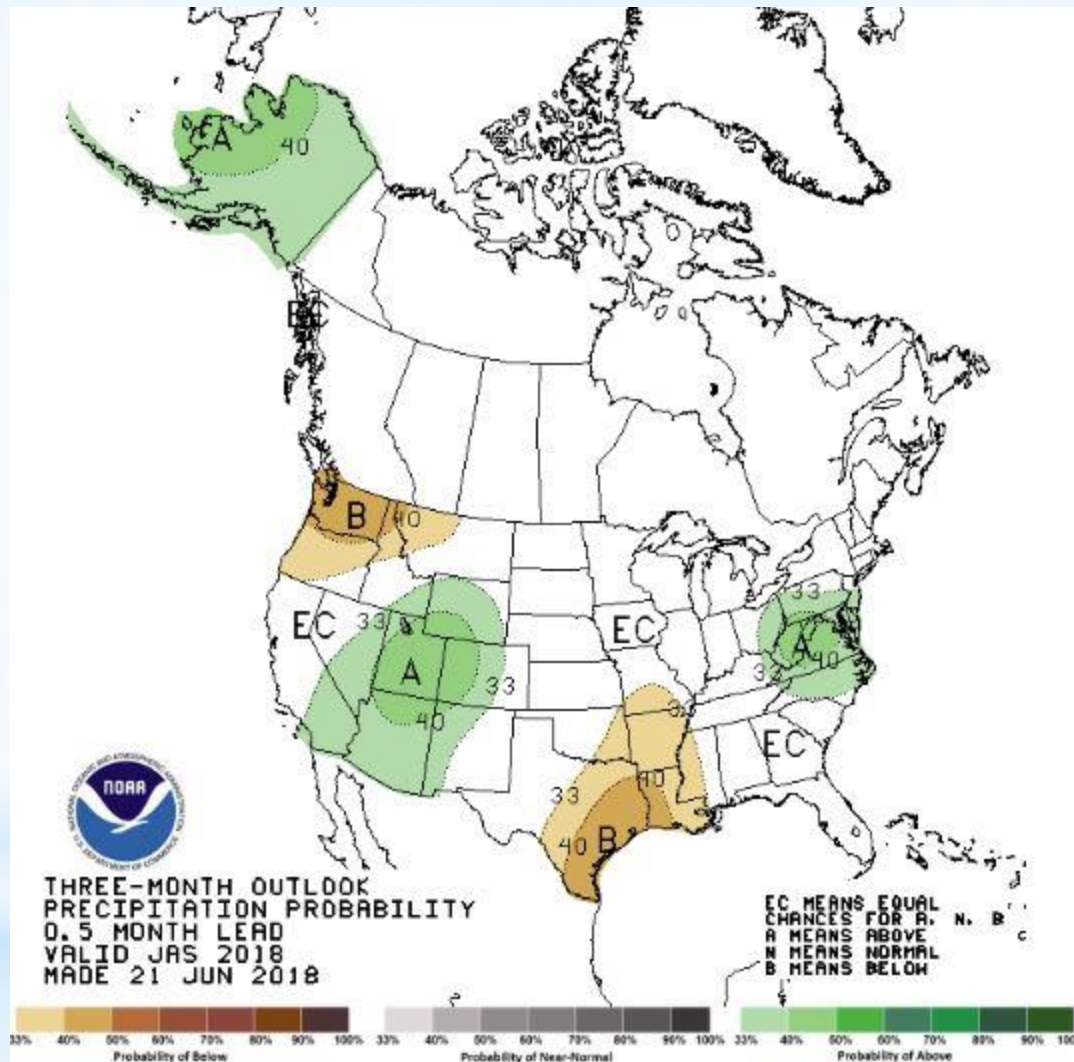


# USA Three Month Temperature Outlook (July, August & September)



The temperature outlook for the next three months shows much above normal for the entire western USA including all of the forecast area.

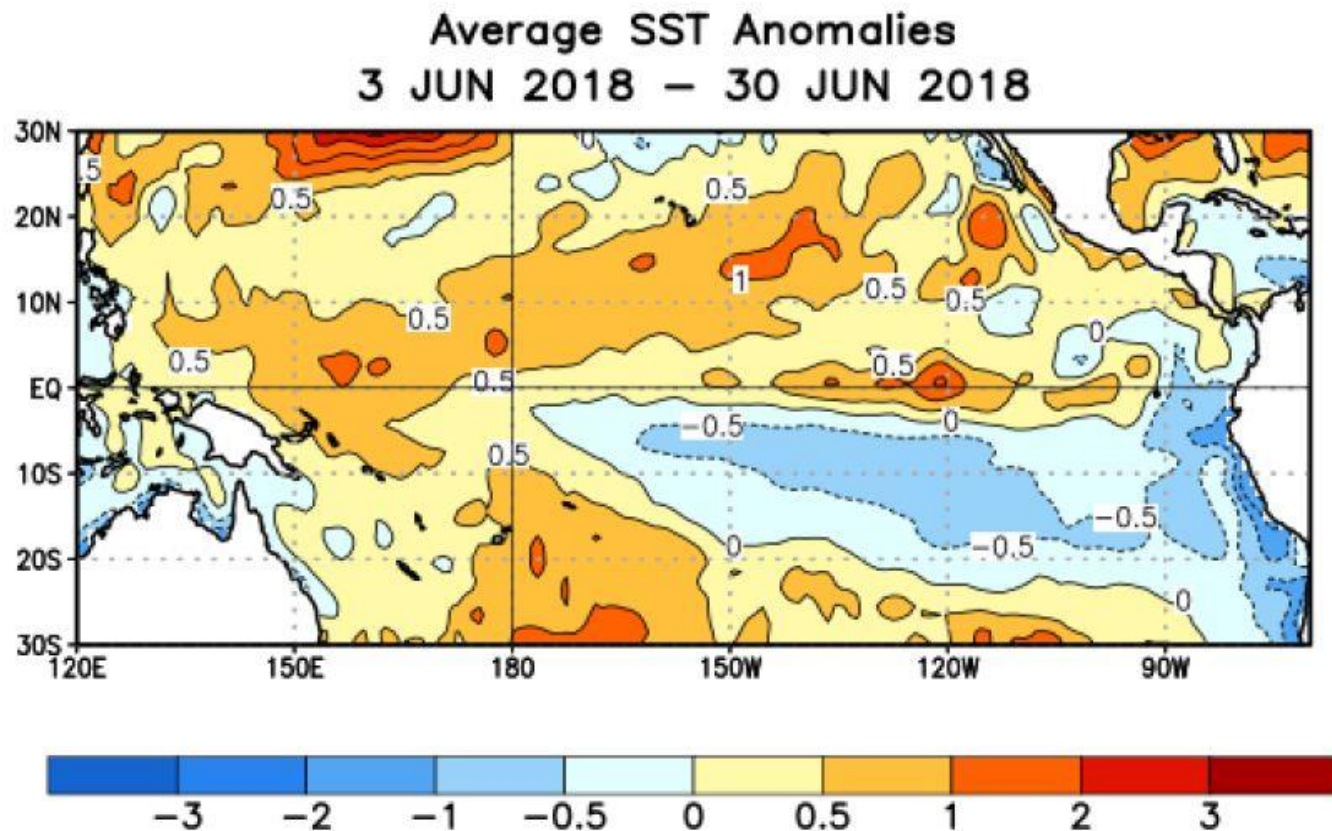
# USA Three Month Precipitation Outlook (July, August & September)



The precipitation outlook for the next three months shows below normal precipitation over the Pacific Northwest & CWA, especially in WA.

# SST Departures ( $^{\circ}\text{C}$ ) in the Tropical Pacific During the Last Four Weeks

During the last four weeks, equatorial SSTs were near-to-above average across most of the Pacific Ocean. SSTs were below average along the South American coast.







**Thank You!**