

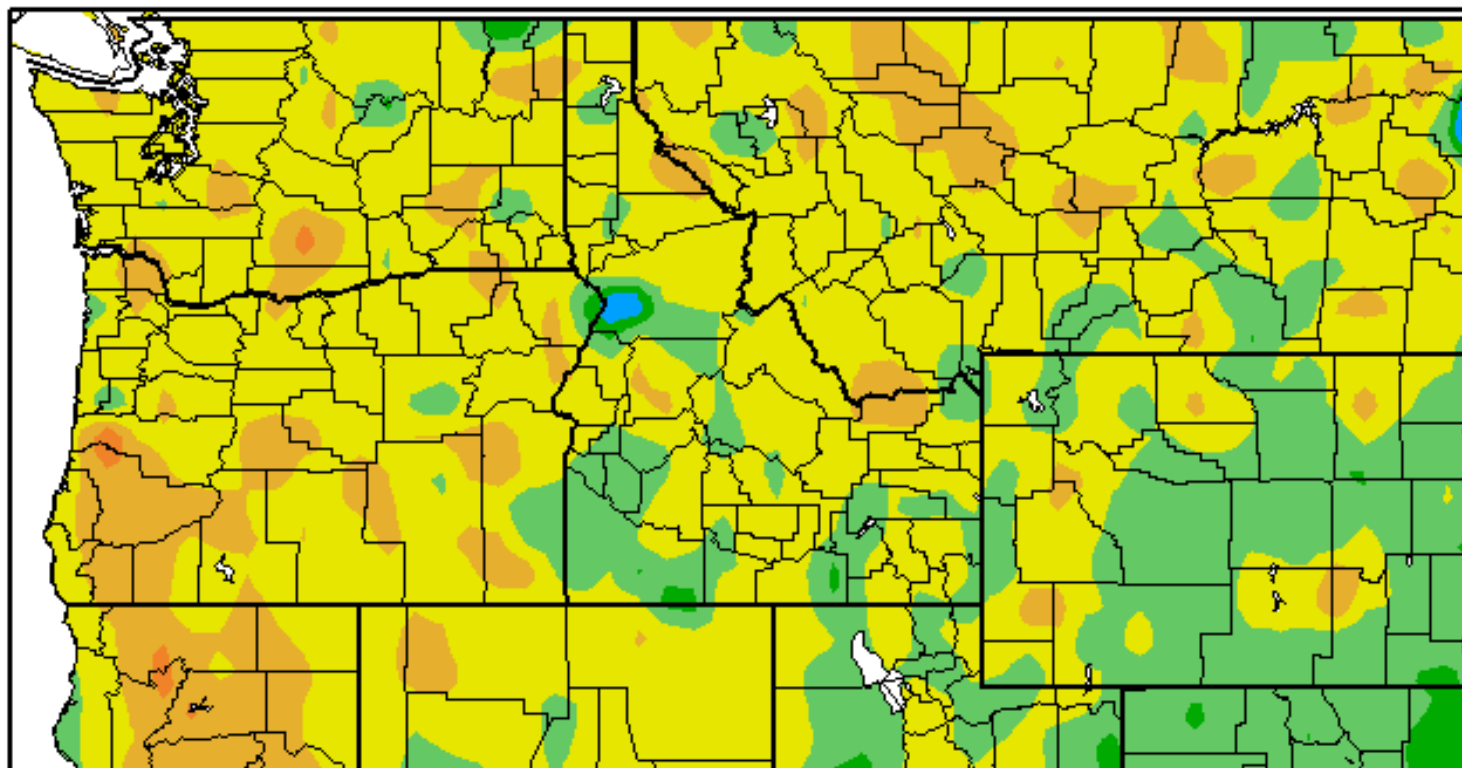


The Month In Review

May 2017

National Weather Service
Pendleton, Oregon

Departure from Normal Temperature (F) 5/1/2017 – 5/31/2017



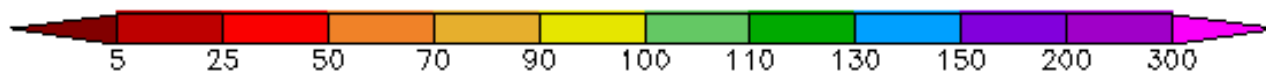
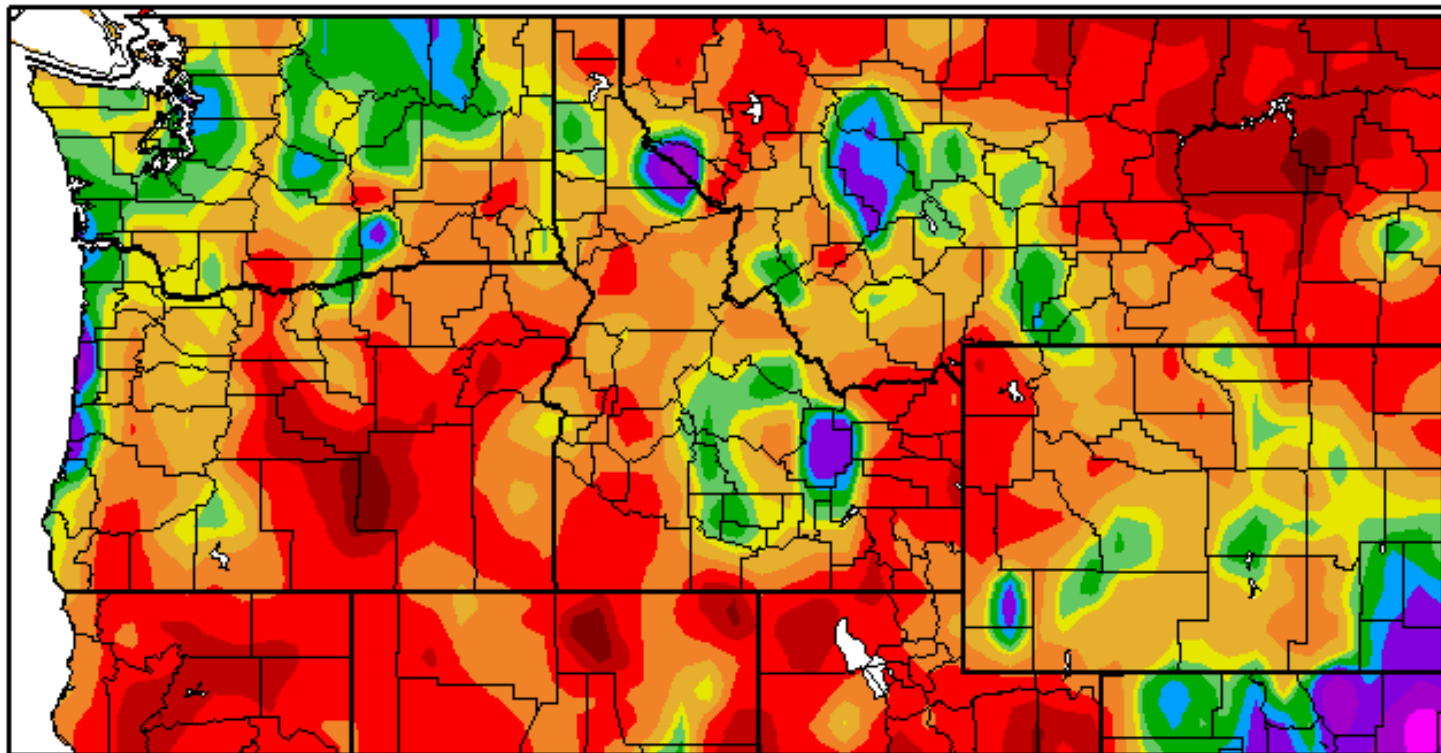
Generated 6/11/2017 at HPRCC using provisional data.

Regional Climate Centers



Percent of Normal Precipitation (%)

5/1/2017 - 5/31/2017



Generated 6/11/2017 at HPRCC using provisional data.

Regional Climate Centers

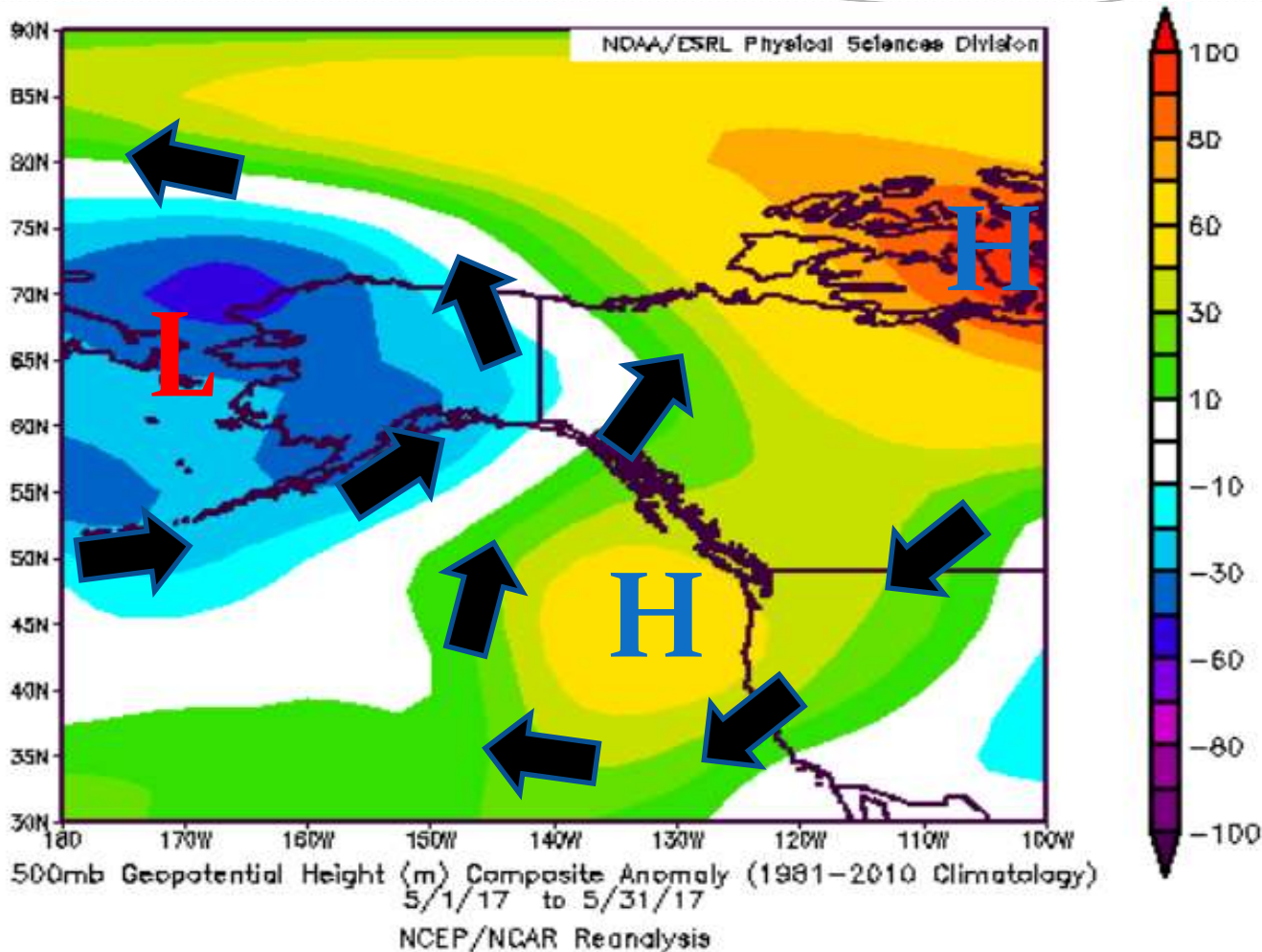


Select May Averages and Departures

	Max T	Max T D	Min T	Min T D	Ave T	Ave T D	PCPN	PCPN D
Yakima	76.8	4.4	45.6	3.7	61.3	4.2	0.55	-0.03
Kennewick	77.3	2.8	49.6	0.1	63.2	1.2	0.41	-0.23
Walla Walla	73.2	2.8	50.0	1.7	61.6	2.2	1.18	-0.95
The Dalles	77.2	4.3	49.2	0.6	63.2	2.4	0.21	-0.48
Redmond	72.0	4.5	35.3	-0.1	53.6	2.2	0.17	-0.86
Pendleton Airport	70.8	0.8	44.5	-1.1	57.7	-0.1	0.94	-0.41
La Grande	71.0	4.3	40.9	-1.2	55.9	1.5	0.75	-1.24



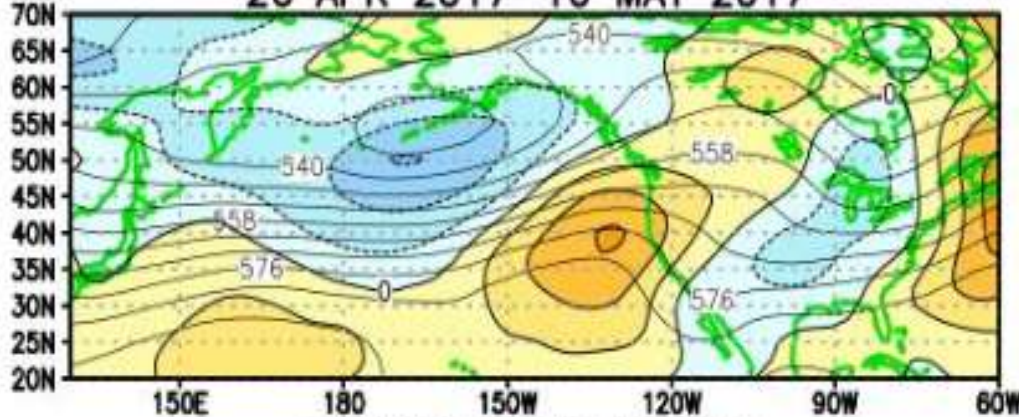
May 2017 Weather Pattern



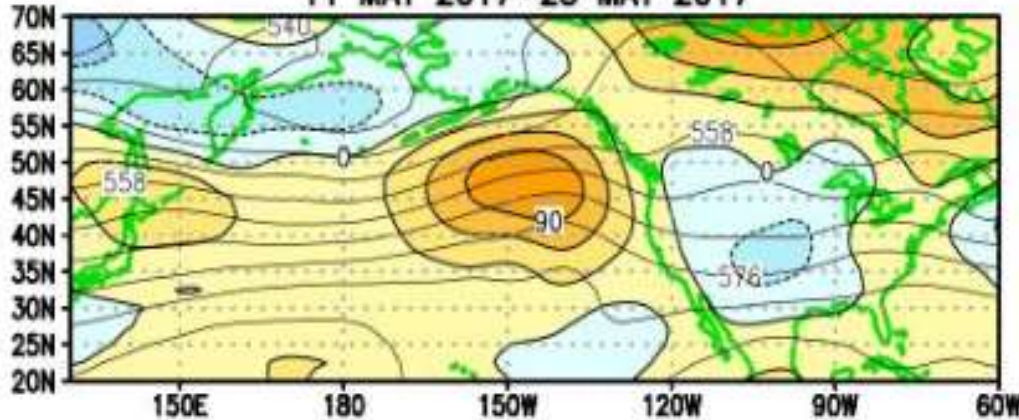
The mean synoptic pattern for the month of May 2017 was characterized by an upper level low pressure system over west-central Alaska with a ridge of higher pressure over the Pacific Northwest extending northward into much of west-central Canada. This pattern tended to block off deep pacific moisture from reaching the interior Northwest, as the average flow would be from the northeast. This is what likely lead to the below normal precipitation amounts through the month. Temperatures were still able to average a few degrees above normal under this pattern.

May 2017 Detailed Upper Level Pattern Analysis

26 APR 2017–10 MAY 2017



11 MAY 2017–25 MAY 2017



- ❖ The first ten days of May featured a large and strong upper level ridge of high pressure along the west coast, including the Pacific Northwest
- ❖ For the middle two weeks of the month, the aforementioned upper level ridge shifted westward, which allowed more troughing to develop over the central US. Most of the area along the West Coast still had above average heights on average through this period.



Daily Record High Temperatures In May

City	May 2017 Daily Max T	Previous Record High
Bend, OR	86 on 5/5	85 in 1966
Pasco, WA	98 on 5/30 (T)	98 in 2009
Walla Walla, WA	97 on 5/30	95 in 1986
Long Creek, OR	92 on 5/31	90 in 1986
Sisters, OR	85 on 5/5 (T)	85 in 1992
Mitchell, OR	88 on 5/30	86 in 2009



Daily Record Low Temperatures In May

City	May 2017 Daily Min T	Previous Record Low
Bend 7NE	25 on 5/14 (T)	25 in 2002
Pasco, WA	33 on 5/15	34 in 2009
Mitchell, OR	27 on 5/07 (T)	27 in 1999
Goldendale, WA	29 on 5/15 (T)	29 in 1999
Meacham, OR	25 on 5/08 (T)	25 in 2003
Pendleton Airport	37 on 5/15	37 in 1986



Daily Precipitation Records In May

City	Daily Precip and Date	Previous Daily Precip Record
Antelope, OR	0.62" on 5/17	0.61 in 2013
Meacham, OR	0.74" on 5/16	0.71 in 2011
Mitchell, OR	0.70" on 5/17	0.60 in 2013
Prosser, WA	0.45" on 5/14	0.43 in 2015
Spray, OR	0.50" on 5/17	0.24 in 1959
Walla Walla, WA	0.82" on 5/16	0.50 in 2005
Arlington, OR	0.61" on 5/05	0.43 in 1983
Pasco, WA	0.31" on 5/04	0.23 in 2016
Easton, WA	0.46" on 5/05	0.42 in 2009



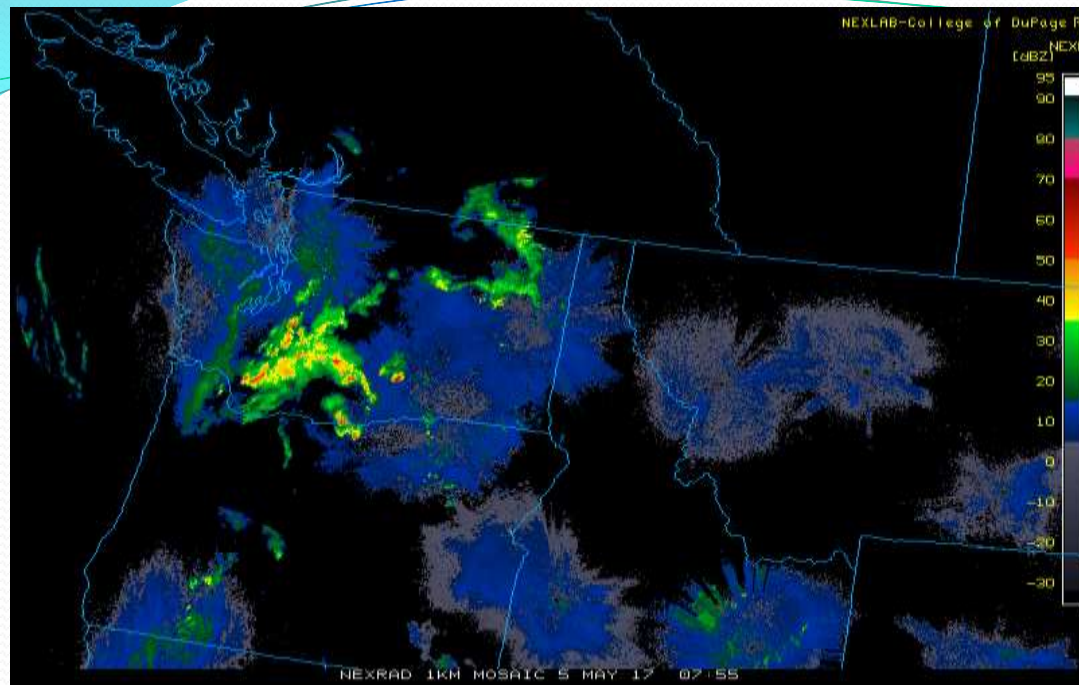
Top 10 Driest Mays on Record

City	Rank	May 2017 Precip	Current or Previous May Record Monthly Precip
Hermiston, OR	#2	0.43"	0.20" in 2001
John Day, OR	#4	0.46"	0.15" in 1964 & 1992
Bend 7NE	#5	0.22"	Trace in 1999
Sisters, OR	#5 (T)	0.12"	0.05" in 2002
Madras, OR	#6	0.11"	0.03" in 1924
Monument, OR	#6	0.43"	0.23" in 1974
Pasco, WA	#6	0.48"	0.14 in 1946
Easton, WA	#9	1.91"	0.44" in 1950
Redmond, OR	#10	0.17"	0.02" in 2011



May Significant Weather

May 4th Severe Thunderstorms



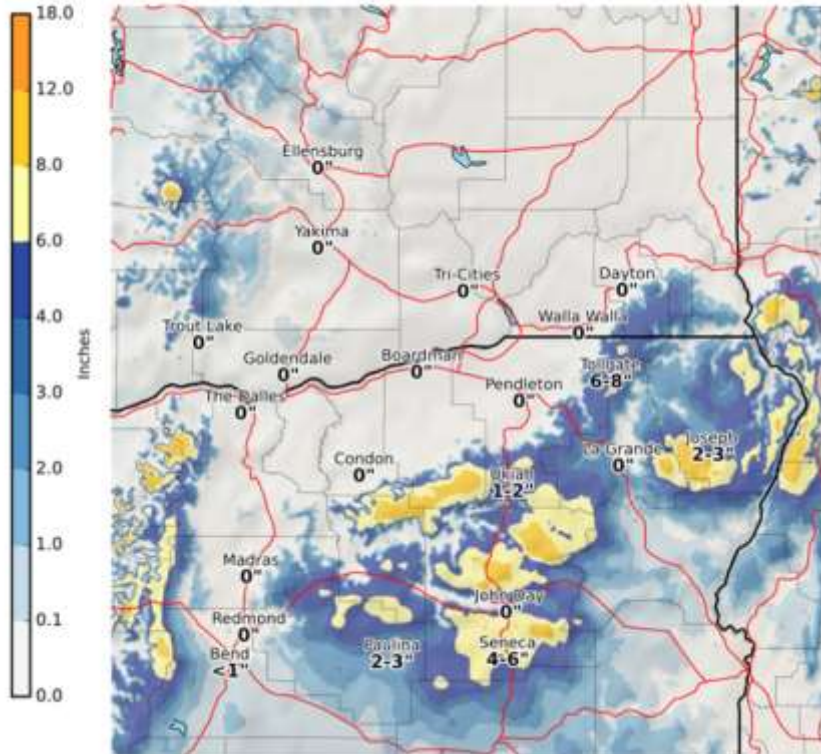
Golf ball size hail in Madras, OR.
Photo Credit: Cecilia LK Ledford, Facebook

Report Time	County	Location	ST	Event Type	Mag.	Source	Remark
5/4/17 20:00	YAKIMA	3 SSE WHITE SWAN	WA	HEAVY RAIN	0.63	TRAINED SPOTTER	THUNDERSTORM WITH SMALL PEA SIZED HAIL AND HEAVY RAIN PRODUCED 0.63 INCH PRECIPITATION.
5/4/17 21:30	BENTON	WEST RICHLAND	WA	HAIL	1.00	PUBLIC	SOCIAL MEDIA REPORT VIA NBC TRI-CITIES. TIME IS RADAR ESTIMATED.
5/4/17 22:30	DESCHUTES	NW BEND	OR	HAIL	2.00	BROADCAST MEDIA	
5/4/17 22:45	JEFFERSON	9 NW TERREBONNE	OR	HAIL	1.75	TRAINED SPOTTER	CROOKED RIVER RANCH.
5/4/17 22:50	JEFFERSON	9 NW TERREBONNE	OR	HAIL	1.00	TRAINED SPOTTER	
5/4/17 23:00	DESCHUTES	3 E SISTERS	OR	HAIL	2.00	PUBLIC	PUBLIC POST ON KTVZ FACEBOOK PAGE...INCLUDES PHOTO OF HAIL.
5/4/17 23:10	JEFFERSON	MADRAS	OR	HAIL	1.75	PUBLIC	PUBLIC POST ON NWS FACEBOOK PAGE WITH PHOTO.
5/4/17 23:15	JEFFERSON	11 NW TERREBONNE	OR	HAIL	1.00	TRAINED SPOTTER	HAIL FROM THREE-QUARTER INCH TO ONE INCH IN DIAMETER.
5/4/17 23:15	JEFFERSON	3 W MADRAS	OR	HAIL	1.50	TRAINED SPOTTER	

May 16-17th Late Season Snow

Higher Elevation Snow

Valid: Tuesday Evening Through Wednesday Afternoon



Location	Snowfall Total
Seneca, OR	4.0"
12 SSW Canyon City	3.8"
1 SE Flora, OR	2.0"
2 E Mitchell, OR	0.5"
22E Joseph, OR	0.4"
Condon, OR	T

A weather system with a strong cold front moved through the area. This brought periods of snow showers to elevations above about 3500 feet...especially in Oregon. Several inches of snow accumulated in the higher elevations, where winter weather advisories were in effect.

May 29-30th

Very Warm Temperatures

Location	Max Temperature
Ellensburg, WA	93
Yakima, WA	95
Pasco, WA	98
The Dalles, OR	99
Hermiston, OR	97
Pendleton, OR	90
Walla Walla, WA	97
Madras, OR	90
Redmond, OR	91
Bend, OR	86
Monument, OR	96
John Day, OR	89
La Grande, OR	90
Seneca, OR	83



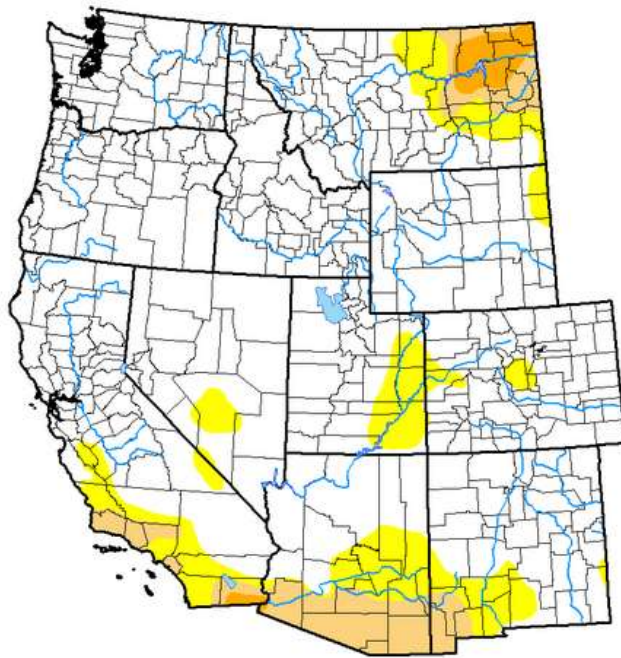
A ridge of high pressure brought increasingly warm temperatures to much of the region toward the end of the month. Many locations saw high temperatures reach into the 90s on May 29th and/or 30th

Drought Ends in Pacific NW

U.S. Drought Monitor West

June 13, 2017
(Released Thursday June 15, 2017)
Valid 8 a.m. EDT

Statistics type: Traditional Percent Area Export table: [PNG](#) [CSV](#) [XLS](#)



Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2017-06-13	82.57	17.43	6.99	1.41	0.00	0.00
Last Week 2017-06-06	82.02	17.98	6.50	0.16	0.00	0.00
3 Months Ago 2017-03-14	83.68	16.32	7.32	0.55	0.02	0.00
Start of Calendar Year 2016-12-27	52.19	47.81	22.47	9.10	5.43	2.44
Start of Water Year 2016-09-27	27.78	72.22	30.95	13.45	5.77	2.81
One Year Ago 2016-06-14	38.27	61.73	27.32	10.74	5.73	2.81

Estimated Population in Drought Areas: **13,099,272**

[View More Statistics](#)

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.

Author(s):

David Miskus, NOAA/NWS/NCEP/CPC

Download: [PNG](#) [PDF](#) [JPG](#)

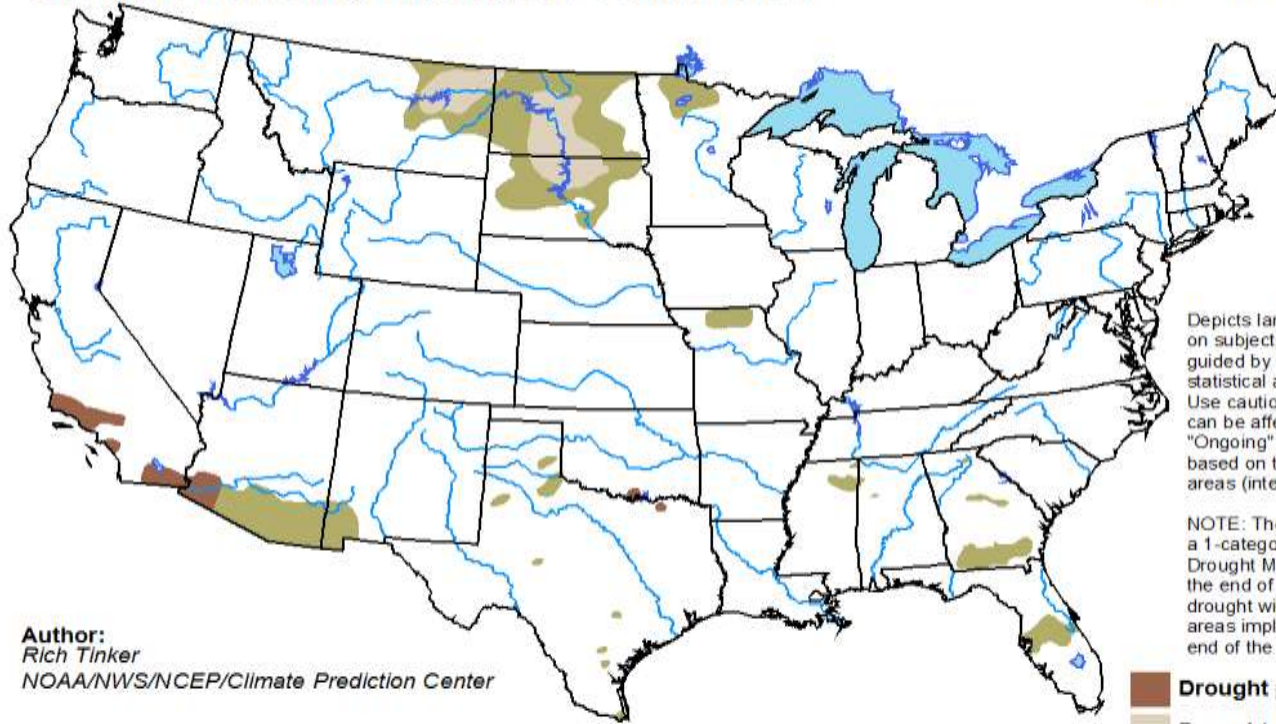
Drought conditions are no longer being reported in either Washington or Oregon at this time. Much of the western US has seen significant improvements since the beginning of the water year. Extreme or exceptional drought conditions no longer exists in the western US at this time. Only a very small area of severe drought remains in Southern California and in northeast Montana.



Drought Outlook Through September

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for June 15 - September 30, 2017
Released June 15, 2017



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

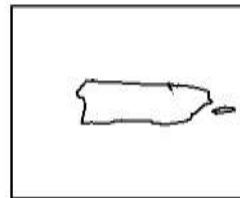
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZ73>

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center



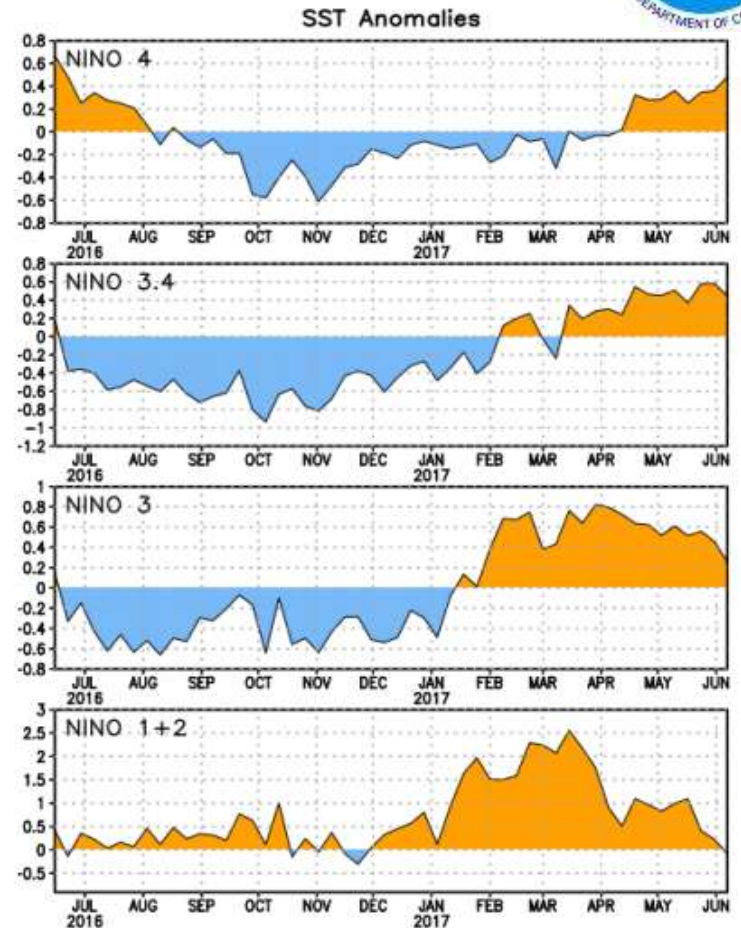
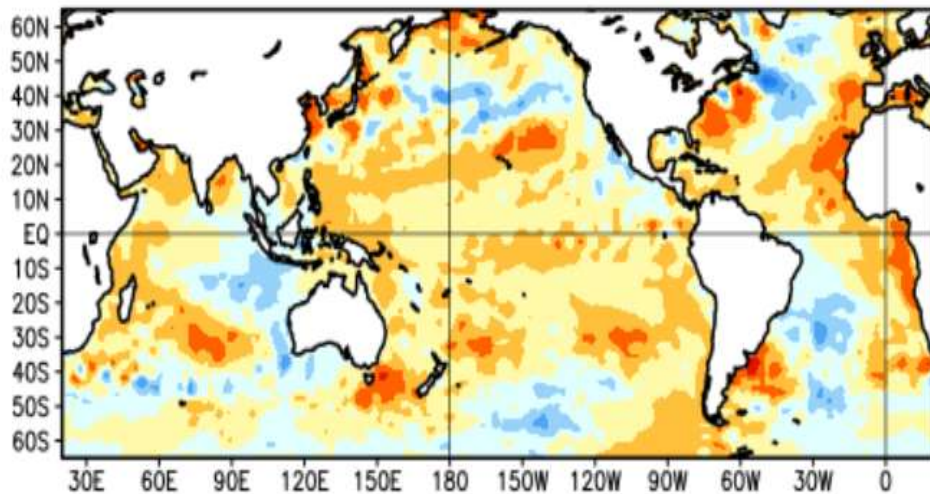
The seasonal drought outlook through September from the CPC indicates drought development is not expected in the Northwest through the coming months. Mountain snow pack remains in high elevation locations, and this should help to maintain the water supply into the summer months.



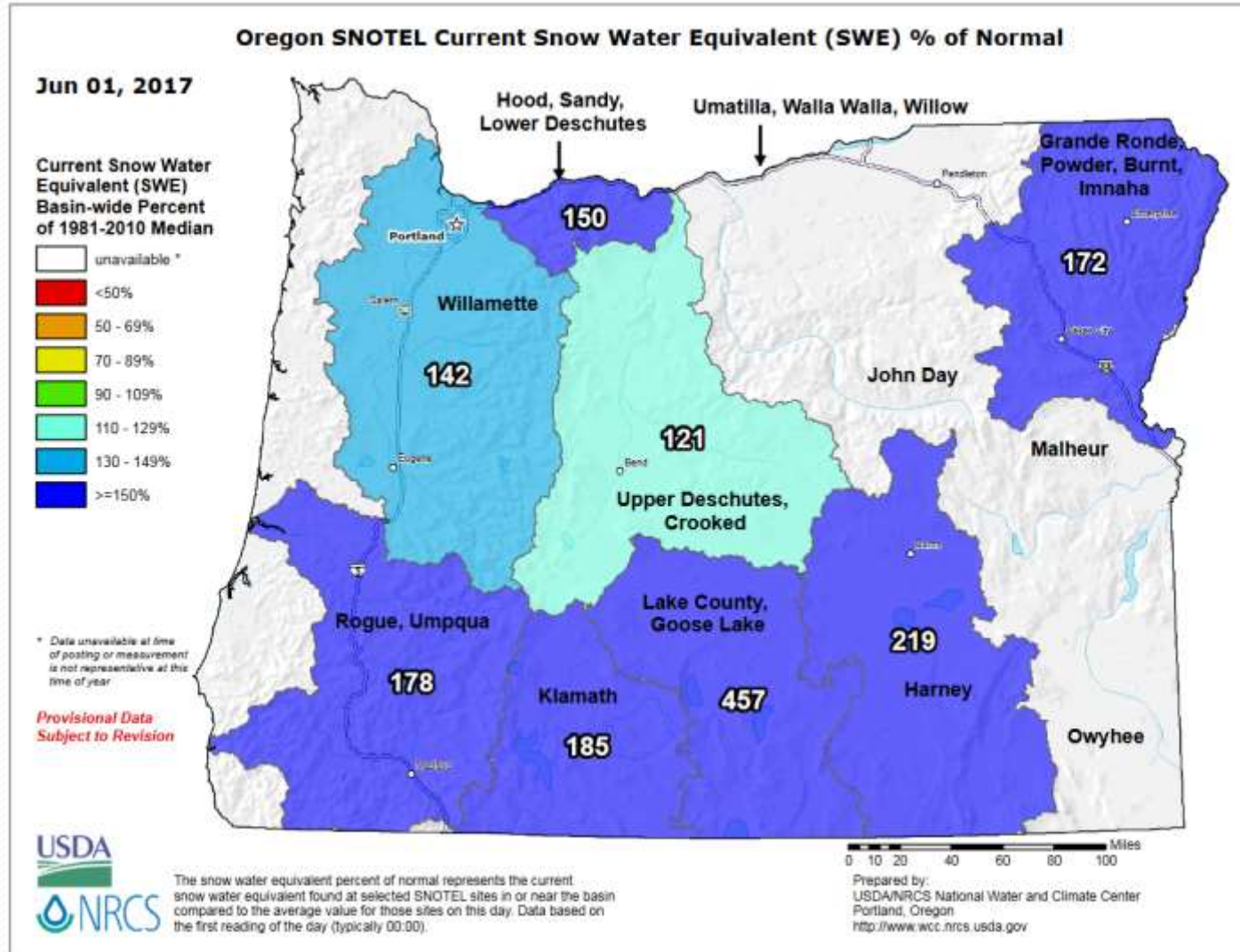
ENSO Neutral Conditions Prevail



Average SST Anomalies
14 MAY 2017 – 10 JUN 2017



ENSO neutral conditions are present. Sea Surface Temperatures (SSTs) are near to slightly above average across the central and east-central Pacific. SSTs are above average in the eastern Pacific. ENSO neutral conditions are favored through the summer and fall months.

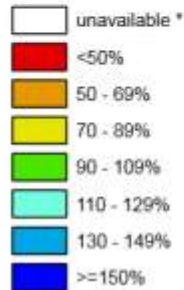


Snow pack is running between about 120 to 450 percent of normal across Oregon as of June 1st 2017. Deep snow remains in the higher mountains across the region. The lower and mid elevation snowpack (up to about 5500-6000 feet) has mainly melted out.

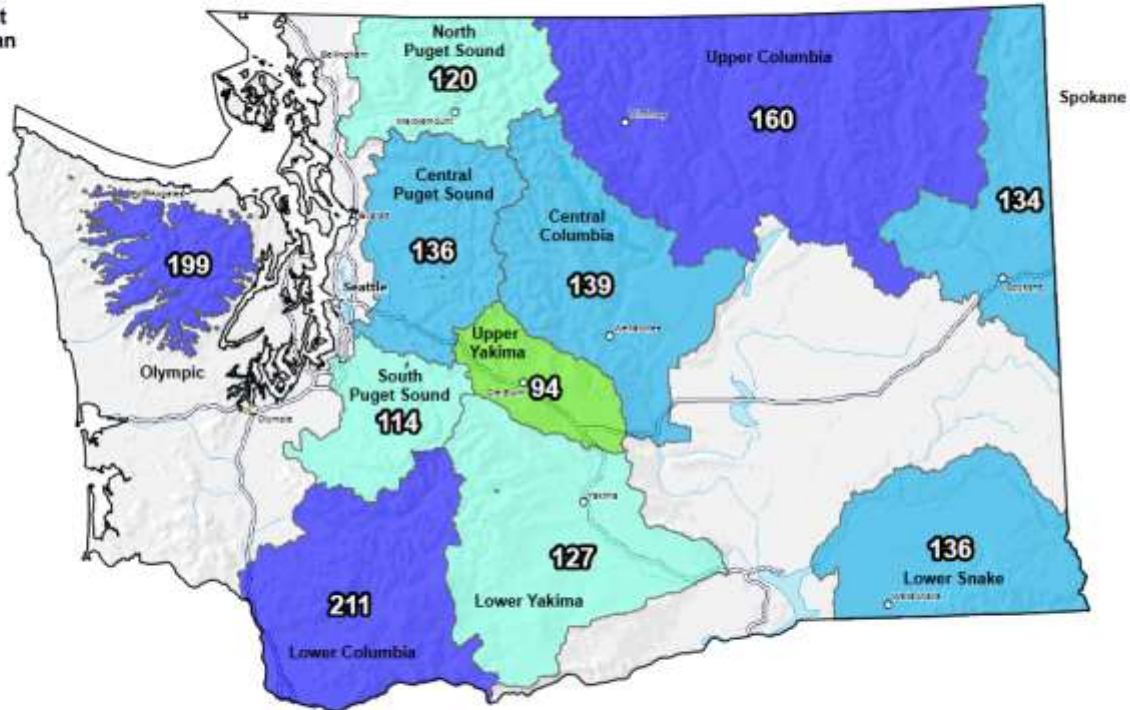
Washington SNOTEL Current Snow Water Equivalent (SWE) % of Normal

Jun 01, 2017

Current Snow Water Equivalent (SWE)
Basin-wide Percent
of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year



Provisional Data
Subject to Revision



The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).



Prepared by:
USDANRCS National Water and Climate Center
Portland, Oregon
<http://www.wcc.nrcs.usda.gov>

Snow pack is running between about 95 to 200 percent of normal across Washington as of June 1st 2017. Deep snow remains in the higher mountains across the region. The lower and mid elevation snowpack (up to about 4000-4500 feet) has mainly melted out.

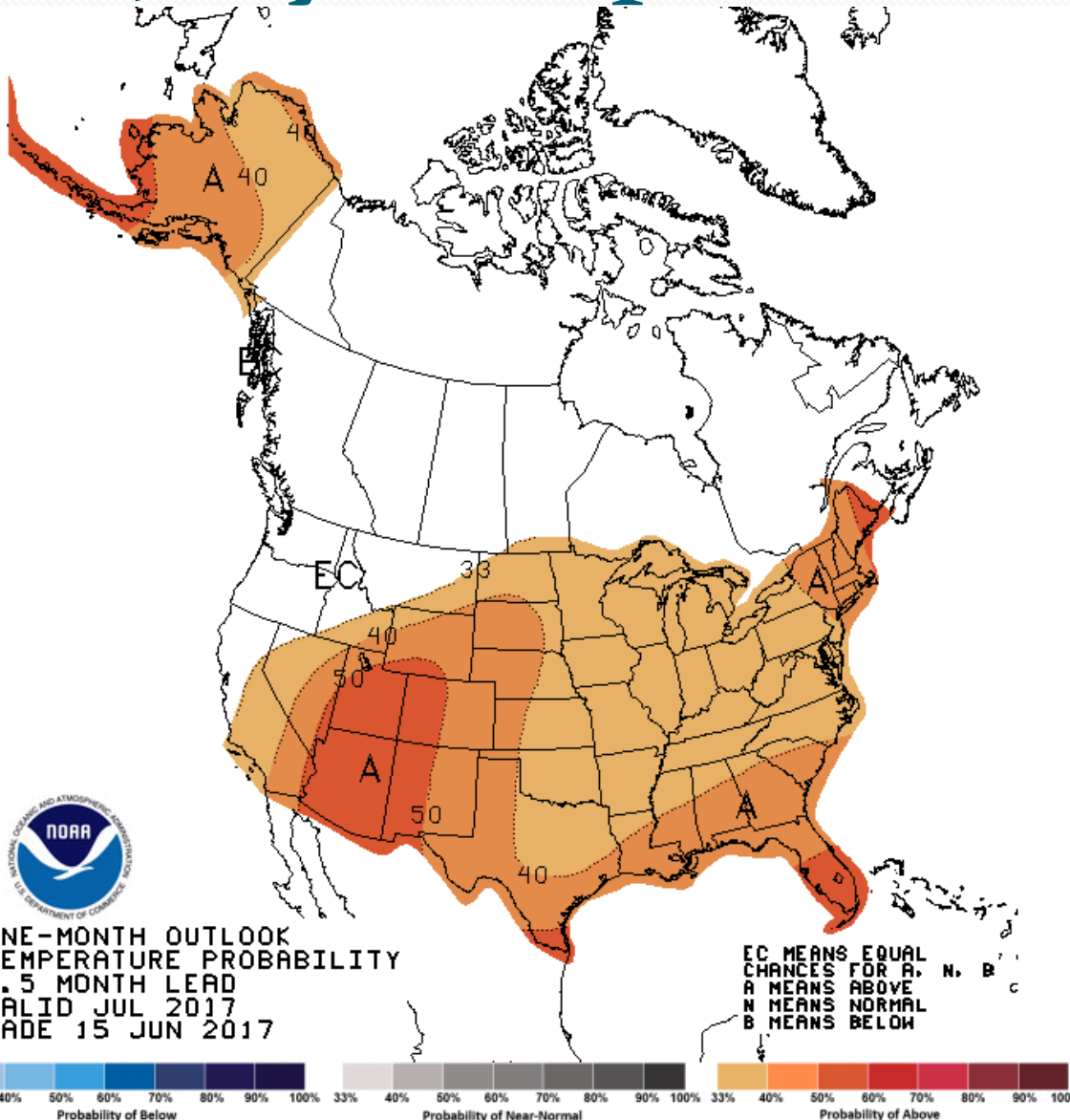


July Outlook

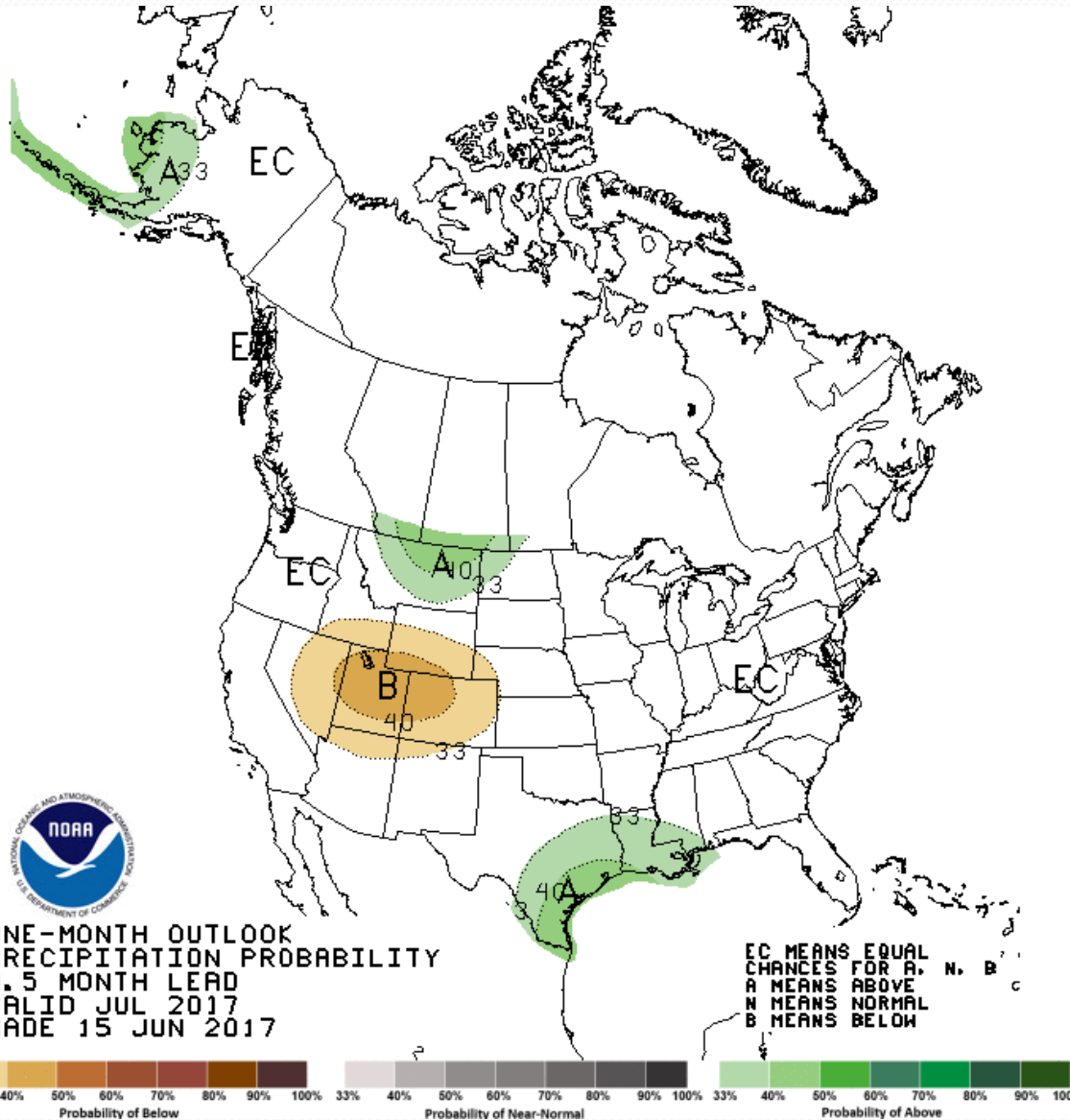
July Temperature Outlook

This graphic is issued by the Climate Prediction Center or CPC and is the Temperature Outlook for the month of July. The cool colors indicate a greater chance of below normal temperatures (none) and the warm colors represent a greater chance of above normal temperatures. The time period for the normals runs from 1981-2010.

There are equal chances for above, below or near normal temperatures across the Pacific Northwest in July. The Southwest US, and the entire Central/Eastern US has higher probabilities for above normal temperatures in July.



July Precipitation Outlook



This graphic is CPC's Precipitation Outlook for the month of July. The green colors represent a greater chance of above normal precipitation, and the brown colors represent a greater chance of below normal precipitation.

There are equal chances for above, below or near normal precipitation amounts over the Pacific Northwest through the month of July. There are greater chance for below normal precipitation over the interior, Rocky Mountain West. Meanwhile, there are higher chances for above normal precipitation over the western Gulf Coast and portions of the northern Plains.



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID JUL 2017
MADE 15 JUN 2017



Thank You!