



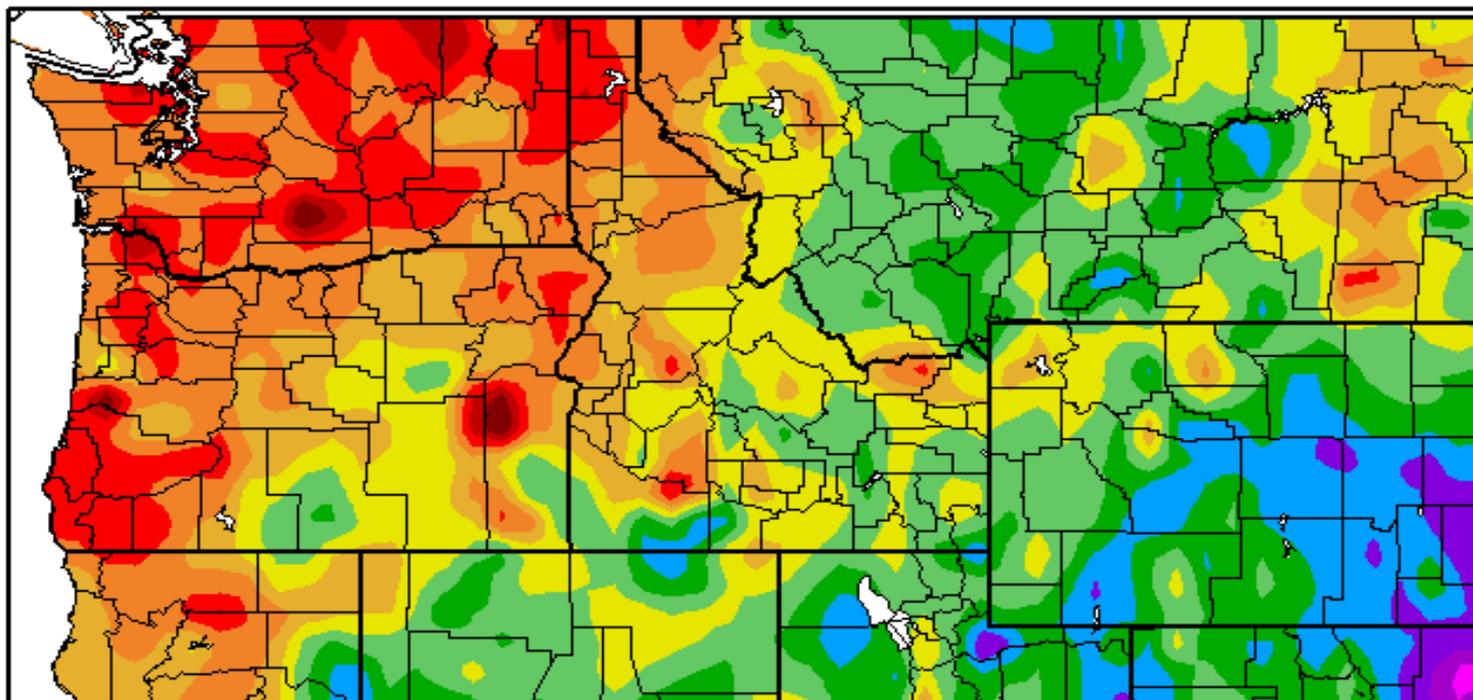
The Month In Review

May 2016

National Weather Service
Pendleton, Oregon

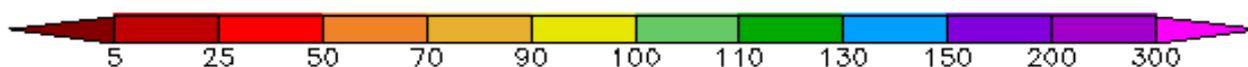
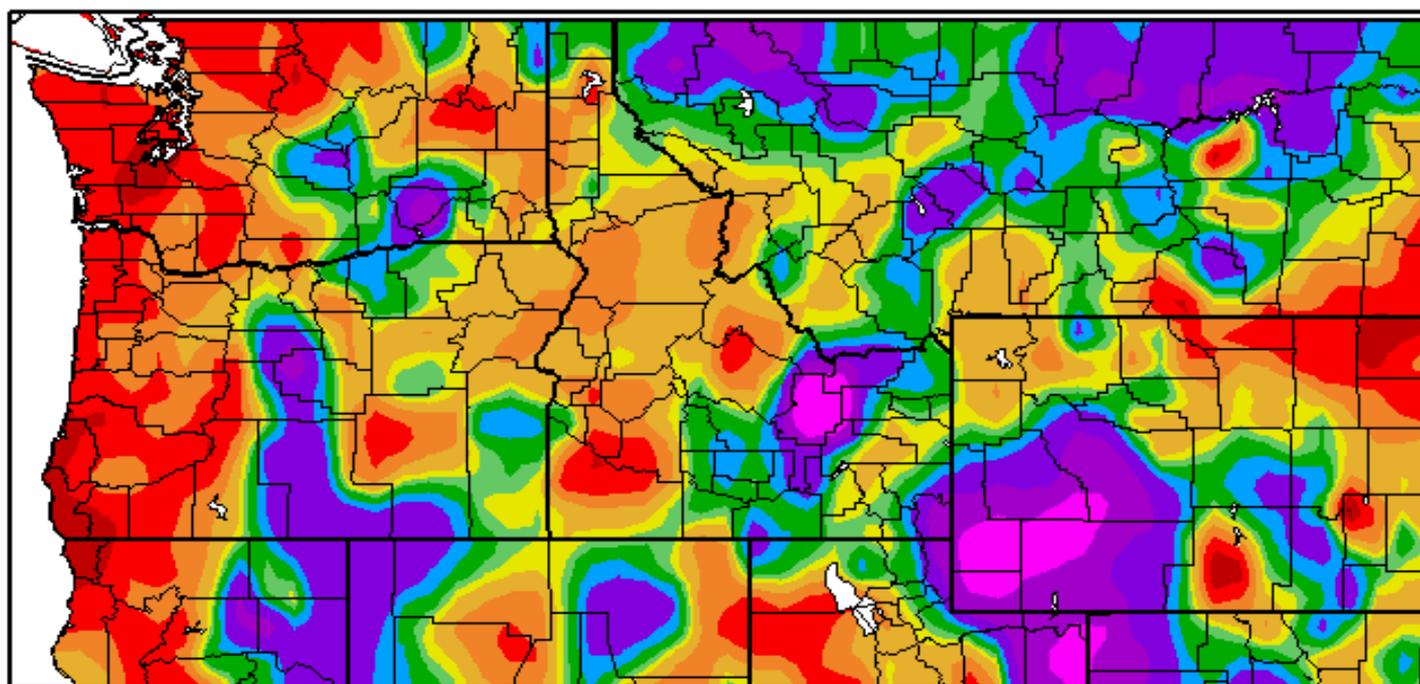
Departure From Normal Temperature (F)

Departure from Normal Temperature (F)
5/1/2016 – 5/31/2016



Percent of Normal Precipitation (%)

Percent of Normal Precipitation (%)
5/1/2016 – 5/31/2016



Generated 6/5/2016 at HPRCC using provisional data.

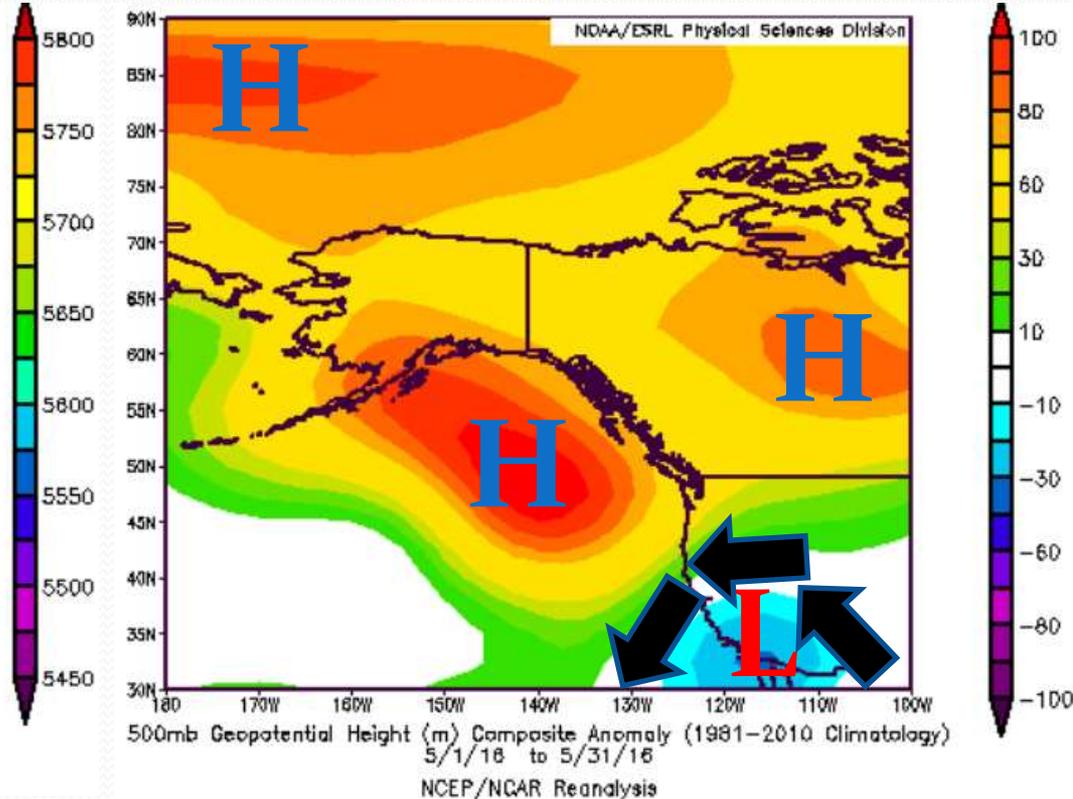
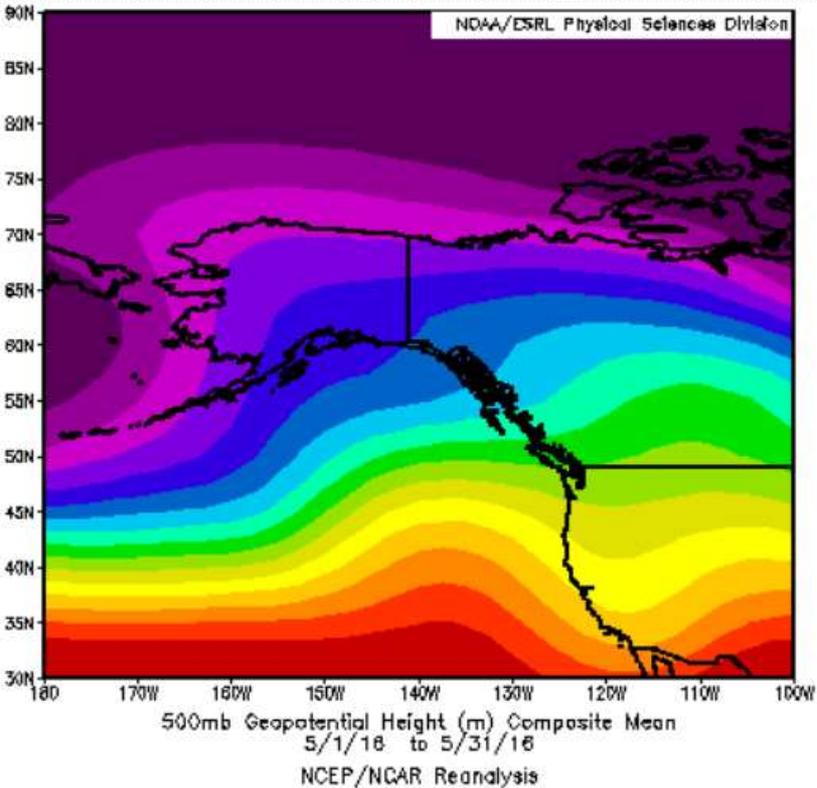
Regional Climate Centers





May 2016

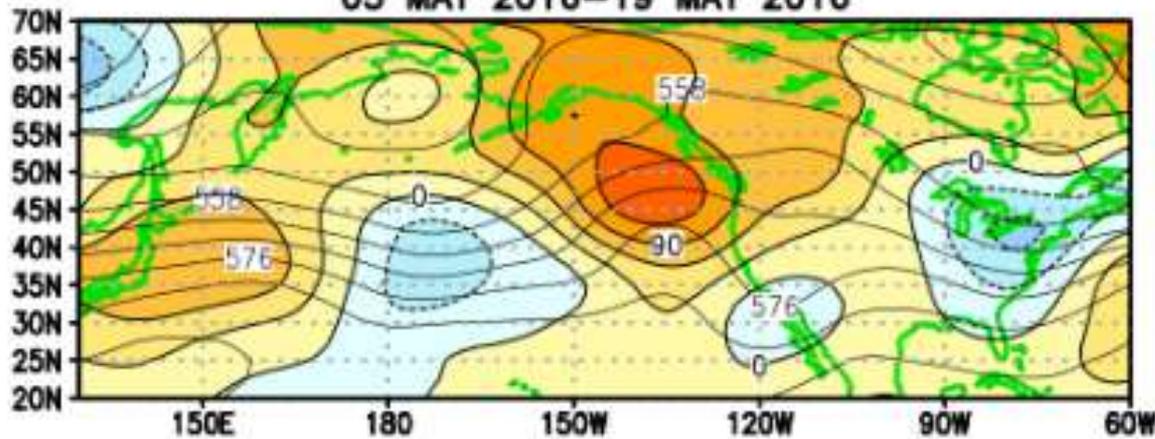
Synoptic Weather Pattern



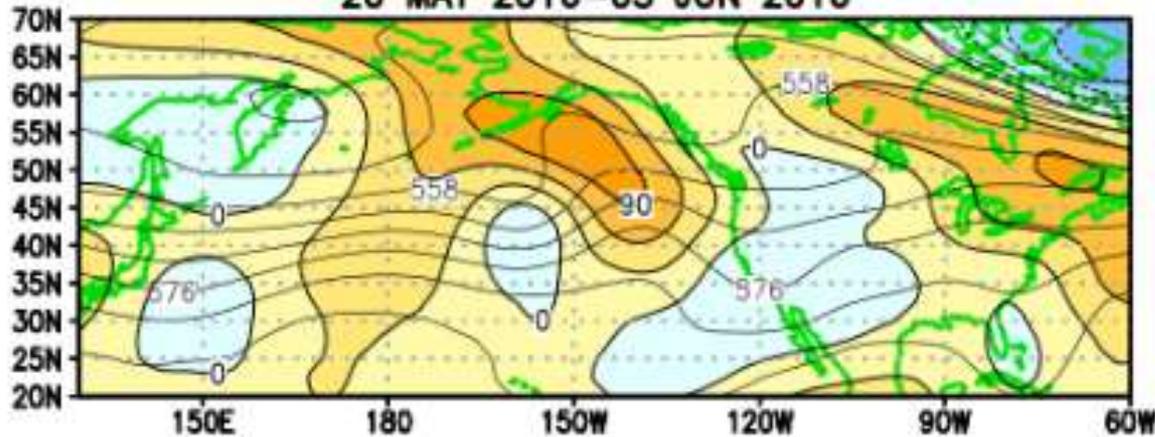
The mean synoptic pattern for the month of May 2016 was characterized by ample upper level ridging over the Gulf of Alaska, much of Western Canada, Alaska and the Arctic Sea. There was a small, relatively weak area of lower than normal heights over southern California, Arizona and northern Mexico. Much of the Pacific Northwest had above normal heights on average through the month of May.

May 2016 Detailed Upper Level Pattern Analysis

05 MAY 2016–19 MAY 2016



20 MAY 2016–03 JUN 2016



- ❖ The first two and a half weeks of May featured a strong, anomalous upper level ridge centered just off the Pacific Coast, extending into the Pacific NW.
- ❖ The last 10 days of the month saw the upper level ridge relax and shift further west, but overall heights were still near to slightly above average across Oregon and Washington.

Top 10 May Record Warm Daily Minimum Temperatures

City	Rank	May 2016 Min T	Current or previous May Min T Record
Dayville, OR	#5	60 on 5/7	63 on 5/30/2015
Redmond, OR	#5(T)	56 on 5/7	58 on 5/31/2009
Moxee City, WA	#9(T)	59 on 5/6	72 on 5/27/1947



Top 10 Record Warmest Average Minimum Temperatures for May

City	Rank	May 2016 Avg Min T	Previous May Avg Min T Record
Pelton Dam, OR	#2	45.4	47.1 in 2005
Prineville, OR	#3	41.5	42.5 in 1897
Ellensburg, WA	#3	47.0	48.2 in 2015
Hermiston, OR	#3	48.1	48.7 in 2005
Kennewick, OR	#3	53.1	53.7 in 1993
Milton-Freewater, OR	#3	52.5	53.2 in 2015
Mt. Adams RS. WA	#3	41.0	42.1 in 1981
Pasco, WA	#4	48.5	50.4 in 1945



Top 10 Record Warmest Average Minimum Temperatures for May (Cont'd)

City	Rank	May 2016 Avg Min T	Previous May Avg Min T Record
Yakima, WA	#4	47.8	49.8 in 2015
La Grande, OR	#6	44.1	45.9 in 1993
Redmond, OR	#7	39.3	41.7 in 1958
Long Creek, OR	#7	38.3	43.0 in 1993
Richland, WA	#8	51.0	54.5 in 1958
The Dalles, OR	#8(T)	50.6	52.8 in 1968
Cle Elum, WA	#9	42.2	44.4 in 1993



Top 10 Record Warmest Average Max Temperatures for May

City	Rank	May 2016 Avg Max T	Current or Previous May Avg Max T Record
Hermiston, OR	#3	77.0	78.4 in 2015
Pasco, WA	#5	78.2	79.8 in 2015
Easton, WA	#5	63.8	70.1 in 2015
Yakima, WA	#6	78.4	81.9 in 1947
Meacham, OR	#8	62.9	66.3 1958
Ellensburg, WA	#8	63.8	77.0 in 1958



Top 10 Record Warmest Average Temperatures for May

City	Rank	May 2016 Avg T	Previous May Avg T Record
Hermiston, OR	#2	49.6	54.4 in 1958
Easton, WA	#2	52.5	57.5 in 2015
Yakima, WA	#4	63.1	65.0 in 1947
Pasco, WA	#5	63.4	64.9 in 1946
Ellensburg, WA	#5	60.0	62.5 in 2015
Long Creek, OR	#7	53.1	56.3 in 1958
La Grande, OR	#7	57.3	59.5 in 1992
Kennewick, WA	#7	65.2	67.5 in 1958
Redmond, OR	#8	54.6	58.0 1958
Meacham, OR	#10	49.6	54.4 1958



Top 10 Daily May Precipitation Records

City	Rank	May 2016 Daily Precip	Record Highest Daily May Precip
Grizzly, OR	#1	2.40" on 5/21	1.70" on 5/7/1957
Hermiston, OR	#2	0.59" on 5/04	0.82" on 5/13/2015
Pasco, WA	#3	0.51" on 5/21	0.57" on 5/12/2015
Redmond, OR	#4	0.78" on 5/21	1.14" on 5/21/2015
Meacham, OR	#6	0.95" on 5/14	1.45" on 5/15/2011
Easton, WA	#7	0.82" on 5/21	2.22" on 5/15/2011
Madras, OR	#7	0.90" on 5/22	1.54" on 5/20/1925
Ellensburg, WA	#8	0.63" on 5/21	1.34" on 5/09/2005
Pendleton (City)	#9(T)	0.90" on 5/15	1.92" on 5/20/1994
Pelton Dam, OR	#10	0.55" on 5/22	1.60" on 5/5/2005



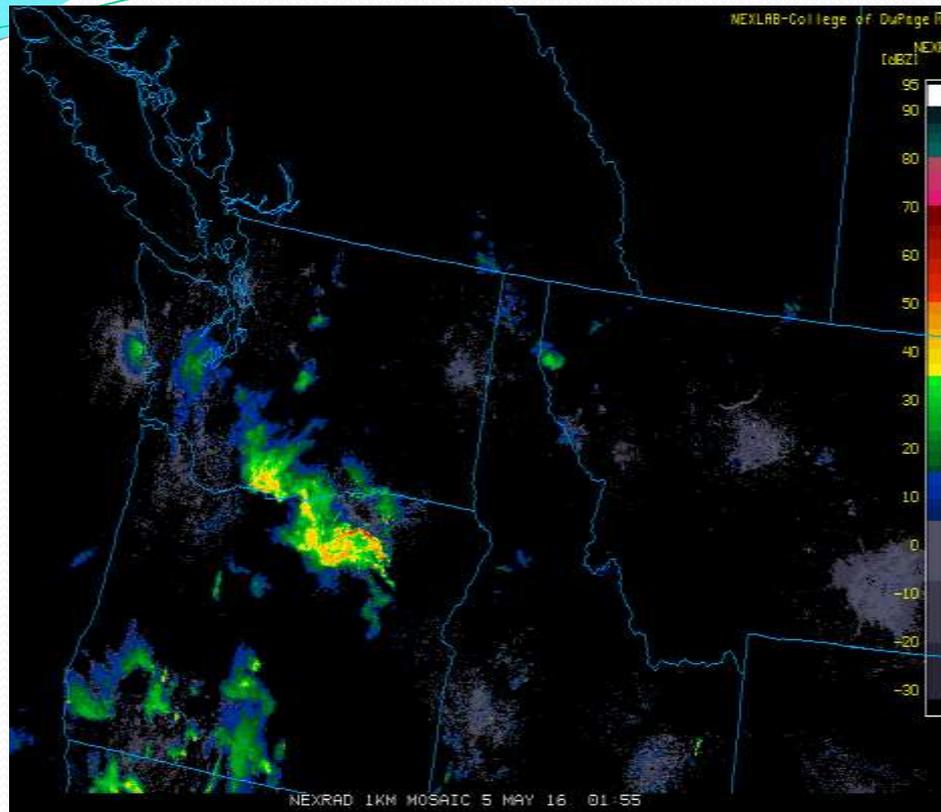
Top 10 Wettest Mays on Record

City	Rank	May 2016 Monthly Precip	Record Highest May Precip
Pasco, WA	#1	1.52"	1.40" in 2011
Kennewick, WA	#5	1.73"	2.29" in 1962
Hermiston, OR	#7	1.25"	1.83" in 2011
Grizzly, OR	#7	3.44"	5.78" in 1998
Prineville, OR	#7	2.46"	4.40" in 1998
Ellensburg, WA	#8	1.21"	3.15" in 2011
Redmond, OR	#9	1.98"	4.62" in 1998
Pelton Dam, OR	#9	1.41"	4.12" in 1998
Pendleton Exp Sta.	#10	2.61"	2.61" in 1991
Madras, OR	#10	2.05"	5.02" in 1998



May Significant Weather

May 4 and 5th Rain, T'Storms & Wind



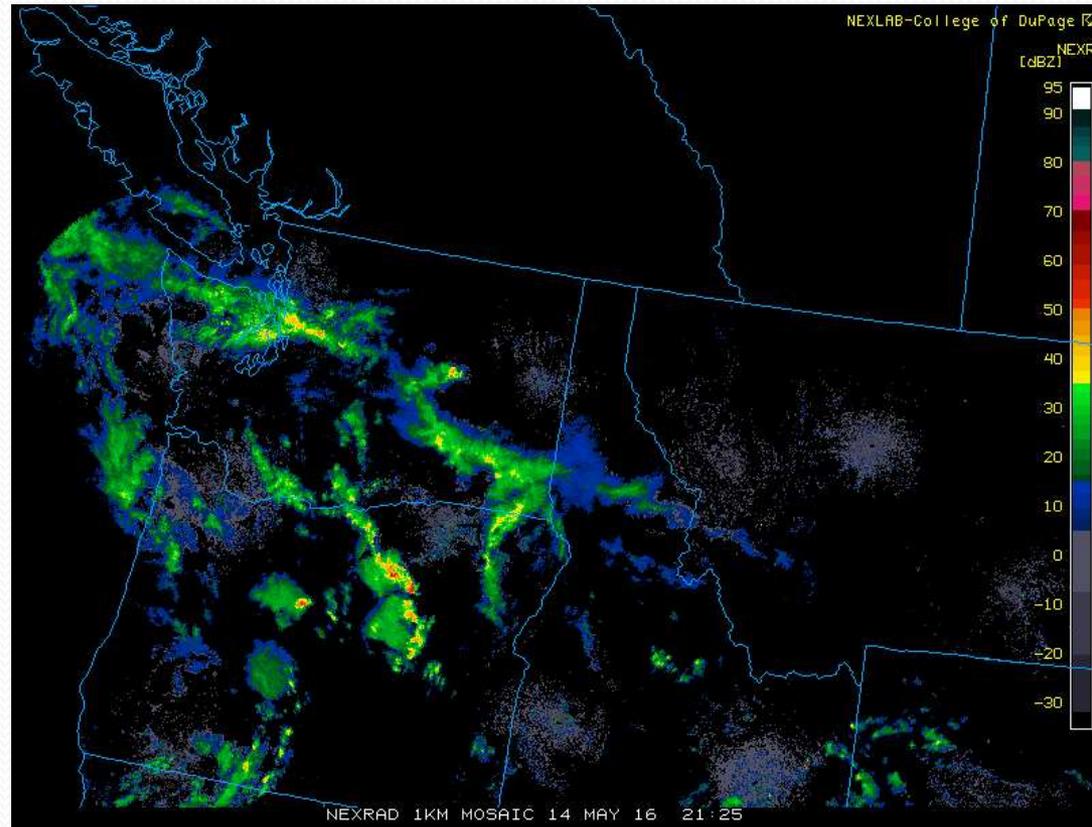
Location	Rain Total	Peak Wind
Pendleton, OR	0.17"	54 MPH
Meacham, OR	0.42"	25 MPH
Redmond, OR	0.86"	36 MPH
Pasco, WA	0.23"	33 MPH
Walla Walla, WA	0.44"	53 MPH
Yakima, WA	0.02"	22 MPH
Hermiston, OR	0.59"	57 MPH
Ellensburg, WA	0.10"	37 MPH
The Dalles, OR	0.23"	28 MPH
Easton, WA	0.29"	N/A

Local Storm Reports from May 4th and 5th (UTC time)

VALID2	MAG	TYPETEXT	CITY	STATE	REMARK
5/5/2016 2:14	59	TSTM WND GST	PENDLETON	OR	
5/5/2016 2:30	55	TSTM WND GST	ECHO	OR	
5/5/2016 2:37	58	TSTM WND GST	HERMISTON	OR	
5/5/2016 2:43	59	TSTM WND GST	1 NW UMATILLA	OR	
5/5/2016 3:30	51	TSTM WND GST	KENNEWICK	WA	
5/5/2016 3:30	55	TSTM WND GST	3 NE WAITSBURG	WA	
5/5/2016 22:08	0	HEAVY RAIN	2 NNW PRINEVILLE	OR	A LINE OF SHOWERS AND THUNDERSTORMS OVER CROOK COUNTY IS PRODUCING EXTREMELY HEAVY RAIN ALONG HIGHW
5/6/2016 1:00	1.25	HAIL	10 W COVE	OR	PORTLAND TELEVISION STATION TWEETED A PHOTO FROM A VIEWER NEAR COVE OF 2 HAILSTONES LARGER THAN A Q
5/6/2016 1:05	1	HAIL	3 SE LA GRANDE	OR	WEATHER SPOTTER REPORTED HAIL UP TO AN INCH IN DIAMETER AT THE JUNCTION OF INTERSTATE 84 AND HIGHWA
5/6/2016 1:30	0.75	HAIL	IMBLER	OR	DIME SIZE HAIL
5/6/2016 1:35	0.75	HAIL	SUMMERVILLE	OR	DIME SIZE HAIL
5/6/2016 2:05	1	HAIL	13 E ELGIN	OR	

May 14 and 15th Rain, T'Storms & Wind

Location	2 Day Precip	Peak Wind
Pendleton, OR	0.67"	40 MPH
Meacham, OR	1.59"	22 MPH
Redmond, OR	0.27"	36 MPH
Pasco, WA	0.78"	35 MPH
Walla Walla, WA	0.79"	32 MPH
Yakima, WA	0.51"	31 MPH
Hermiston, OR	0.63"	25 MPH
Ellensburg, WA	0.38"	29 MPH
The Dalles, OR	0.15"	32 MPH
Easton, WA	0.44"	N/A



Local Storm Reports from May 14th

5/14/2016 19:39	None	LIGHTNING	BEND	OR	LIGHTNING STARTED A HOUSE FIRE ON THE 1300 BLOCK OF NE 12TH STREET IN BEND. THE FIRE_ WHICH STARTED
5/14/2016 19:43	1.75	HAIL	SUNRIVER	OR	GOLF BALL SIZED HAIL FELL FOR 5-10 MINUTES.
5/14/2016 19:45	0.88	HAIL	7 SW SUNRIVER	OR	
5/14/2016 20:43	0.88	HAIL	1 NNE POWELL BUTTE	OR	
5/14/2016 20:45	None	LIGHTNING	BEND	OR	LIGHTNING STARTED A HOUSE FIRE ON THE 61800 BLOCK OF BUNKER HILL COURT IN THE BROKEN TOP SUBDIVISIO
5/14/2016 22:05	0.25	HAIL	ENE BEND	OR	3/8 INCH DIAMETER HAIL COVERING THE ROAD TO A DEPTH OF 2 INCHES ALONG HIGHWAY 20 AND DODDS ROAD FOR
5/14/2016 22:09	1	HAIL	DALE	OR	DEPTH UP TO 6 INCHES ON ROAD.

May 20 & 21st Heavy Rain, Strong Storms

Location	2 Day Precip
Pendleton, OR	0.23"
Meacham, OR	0.44"
Redmond, OR	0.84"
Pasco, WA	0.51"
Grizzly, OR	2.40"
Madras, OR	1.60"
Prineville, OR	1.62"
Ellensburg, WA	0.71"
The Dalles, OR	0.12"
Easton, WA	0.88"



Local Storm Reports May 21st (UTC Time)

5/21/2016 23:35	0.75	HAIL	KENNEWICK	WA	PHOTO OF HAILSTONE NEXT TO A PENNY IN KENNEWICK AT HWY 395 AND 10TH AVE.
5/21/2016 23:45	None	TSTM WND DMG	KENNEWICK	WA	LARGE TREE UPROOTED ON 7TH AVE AND OLYMPIA IN KENNEWICK.
5/21/2016 23:50	None	TORNADO	KENNEWICK	WA	EARLIER REPORTS OF A FUNNEL CLOUD AND WIND DAMAGE ON SATURDAY 5/21 WERE THE RESULT OF AN APPARENT S
5/22/2016 0:00	None	FUNNEL CLOUD	PASCO	WA	SEVERAL PHOTOS AND VIDEOS RELAYED TO NEWS MEDIA OF FUNNEL CLOUD ABOUT 40 PERCENT DOWN TO THE GROUND
5/22/2016 0:00	None	FLOOD	KENNEWICK	WA	REPORTS OF STREETS AND BUSINESSES FLOODING BETWEEN QUINCY AND RANIER IN KENNEWICK.
5/22/2016 0:00	None	FLASH FLOOD	KENNEWICK	WA	HIGH WATER AT UNDERPASS OF HWY 395 AND CANAL DRIVE. REPORTED ON KEPR-TV FACEBOOK PAGE.
5/22/2016 0:00	None	DEBRIS FLOW	KENNEWICK	WA	ROCK AND MUDSLIDE ON CANAL DRIVE IN KENNEWICK NEAR HWY 395.

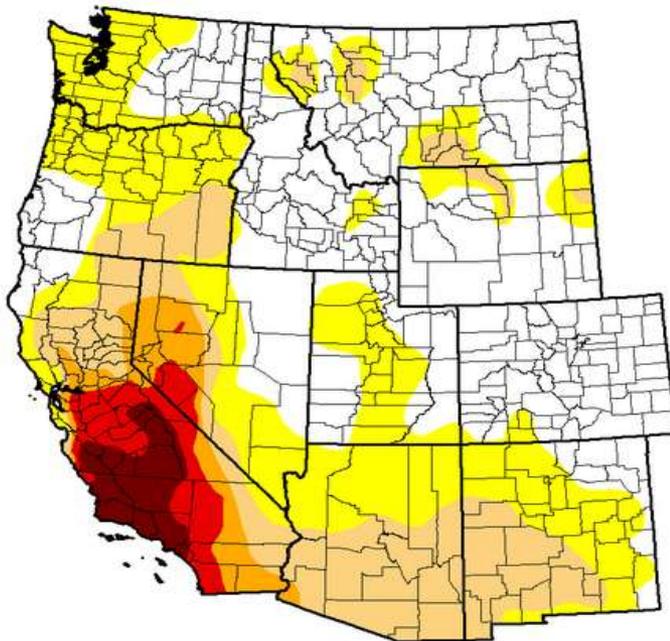
Drought Conditions Update

U.S. Drought Monitor West

May 31, 2016
(Released Thursday June 2, 2016)
Valid 8 a.m. EDT

Statistics type: Traditional Percent Area

Export table:   



Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2016-05-31	45.16	54.84	27.17	10.00	6.23	2.81
Last Week 2016-05-24	45.06	54.94	30.83	10.98	6.23	2.81
3 Months Ago 2016-03-01	34.49	65.51	35.79	19.70	10.28	5.55
Start of Calendar Year 2015-12-29	33.17	66.83	45.07	29.30	15.92	6.85
Start of Water Year 2015-09-29	22.77	77.23	57.81	42.42	26.50	7.62
One Year Ago 2015-06-02	25.23	74.77	56.98	35.92	17.99	7.94

Estimated Population in Drought Areas: **40,836,412**

[View More Statistics](#)

Intensity:

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

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

Author(s):

Mark Svoboda, National Drought Mitigation Center

Download:   

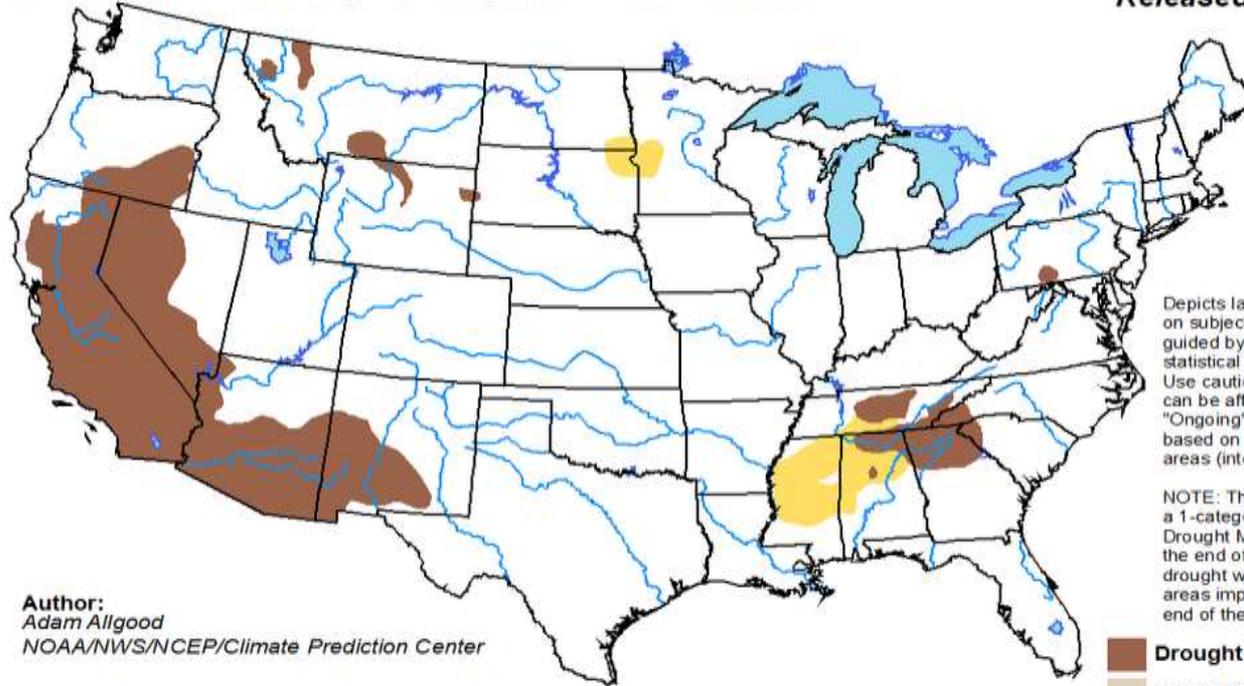
The latest drought monitor shows some minor degradation in the drought conditions, with much of Oregon now back in the D0, or abnormally dry category. A small portion of southeast Oregon is now again categorized as being in the D1, or moderate drought category.



June Drought Outlook

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

Valid for June 2016
Released May 31, 2016



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).

Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

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



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

The monthly drought outlook from CPC indicates drought persisting across parts of southeast Oregon with little or no change expected across the rest of our area through the month.

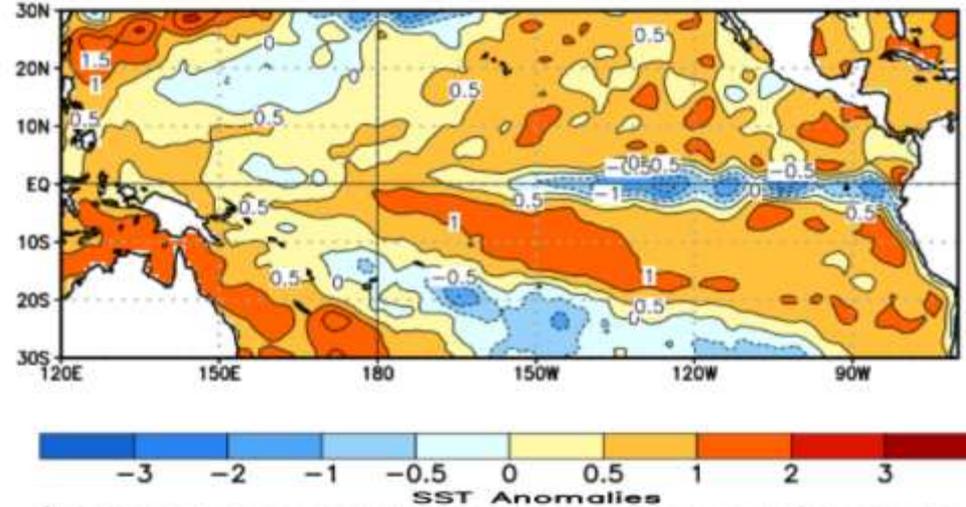


Final El Niño Advisory

La Niña Development Likely

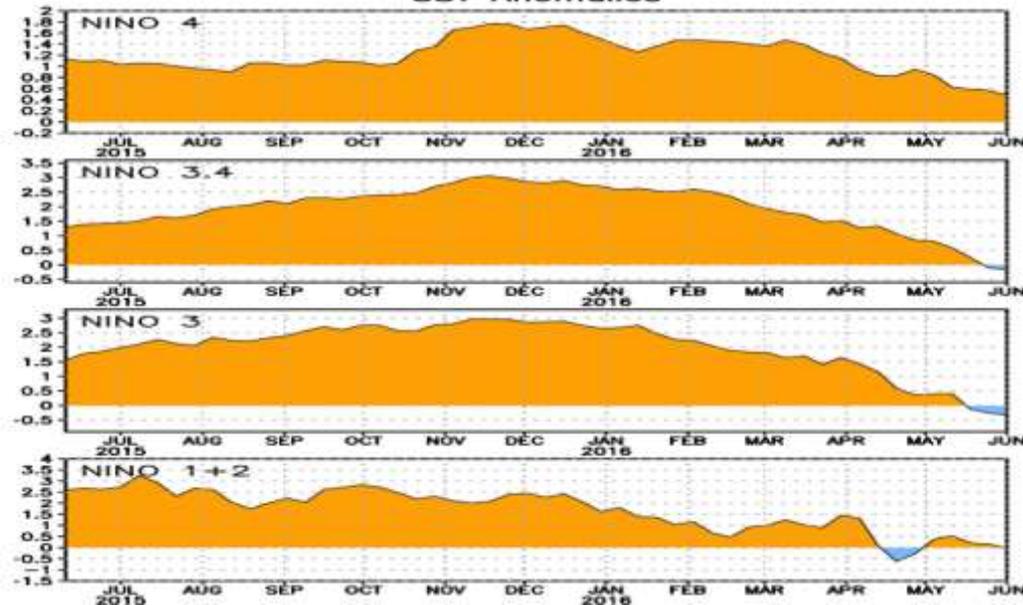


Average SST Anomalies
8 MAY 2016 – 4 JUN 2016



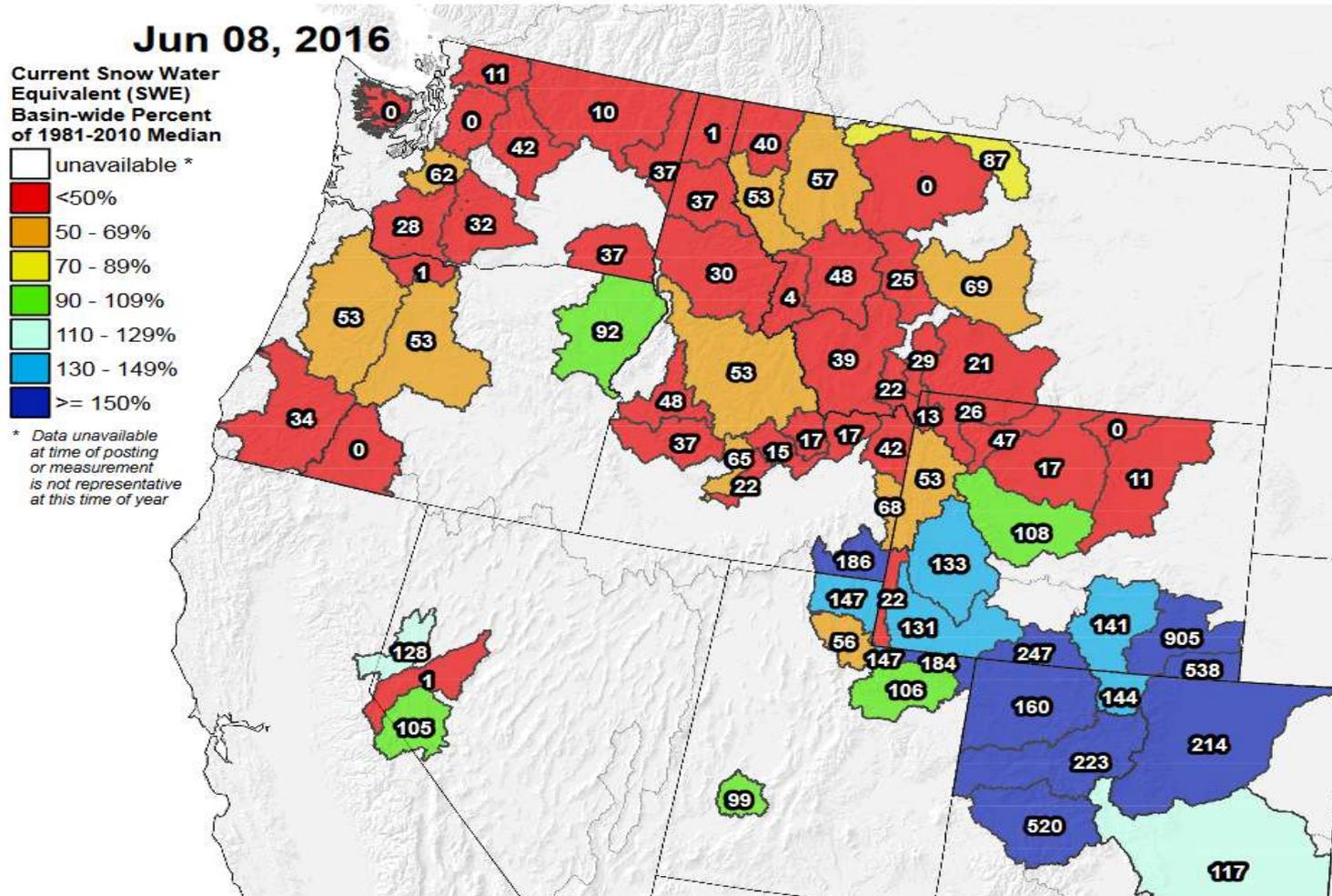
❖ Final El Niño Advisory from the Climate Prediction Center. Sea Surface Temperature (SST) anomalies are decreasing in the tropical Pacific. However, an area of +0.5 to +1.0°C anomalies are still present.

❖ A La Niña watch is also in effect, as La Niña is now favored to develop during the Northern Hemisphere Summer, with about a 75% chance for La Niña development by the fall/winter 2016-2017.



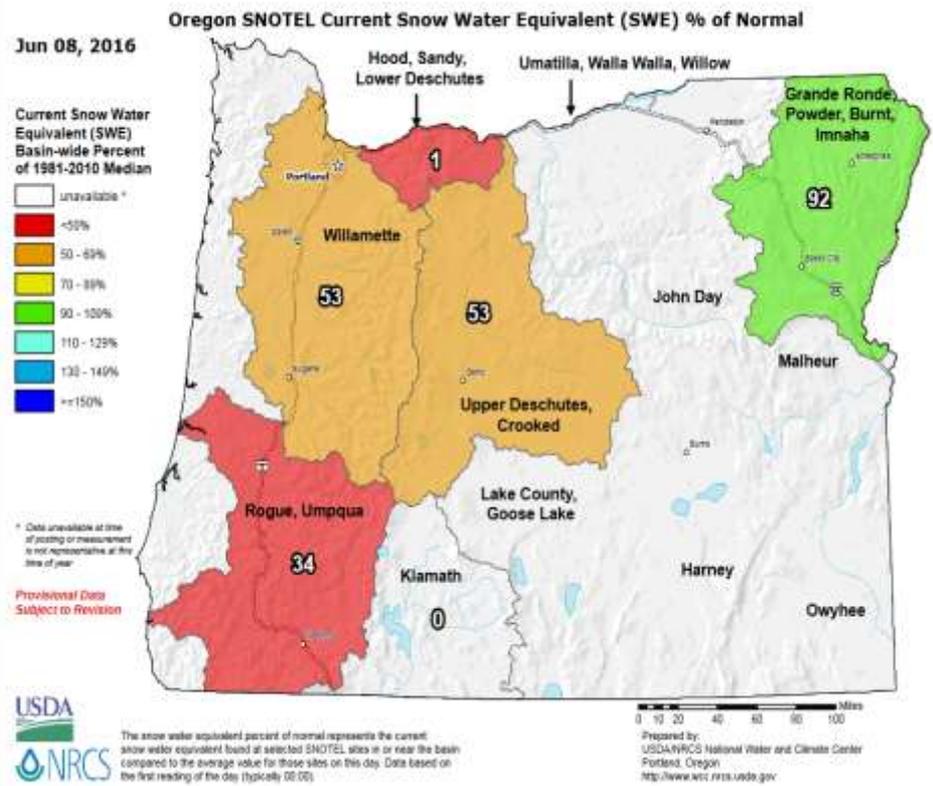
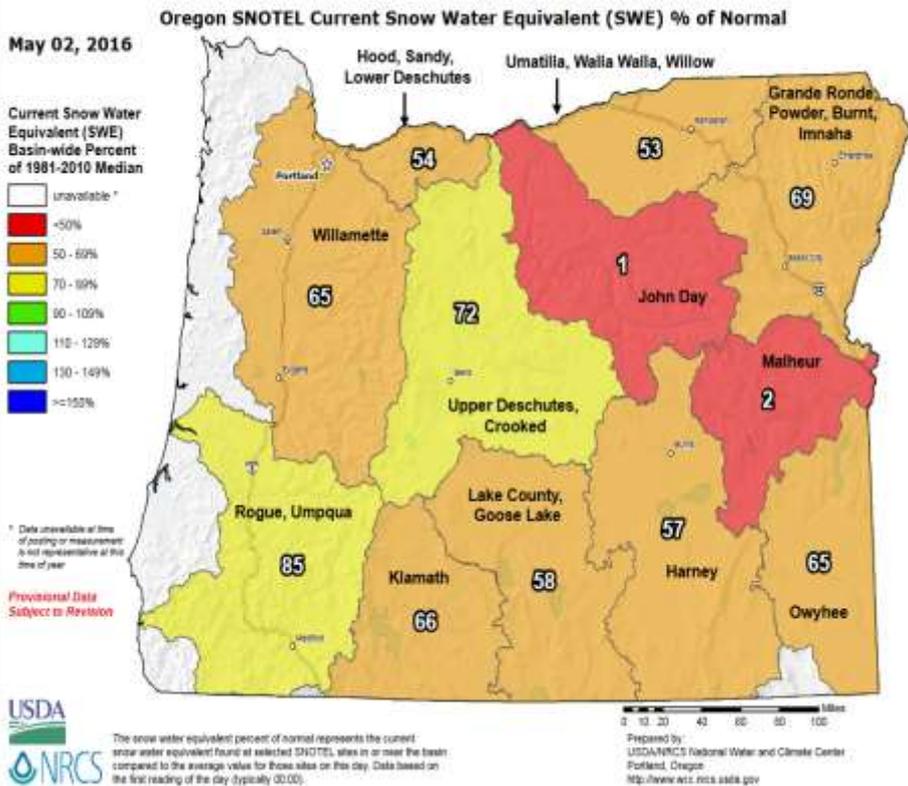
Current Snow Water Equivalent

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



Current snow water equivalent (SWE) is now running below average across the much of the Pacific Northwest, due to the warmer than average conditions in April & May. The basin running closest to average currently are the Wallowa Mountains which are near 92 percent of average to date.

Oregon Current Snow Water Equivalent



May 2nd 2016 1 to 85 percent of average SWE

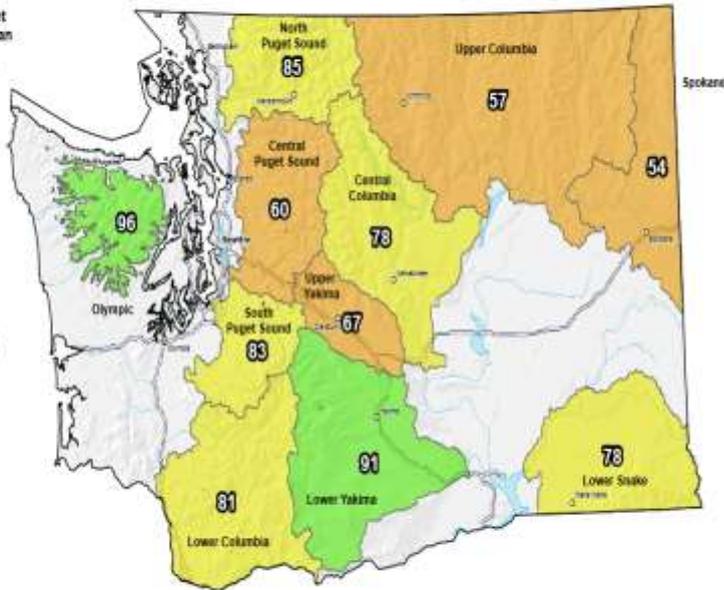
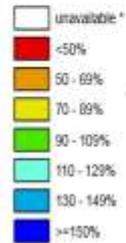
June 8th 2016: 1 to 92 percent of average SWE

Washington Current Snow Water Equivalent

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

May 02, 2016

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



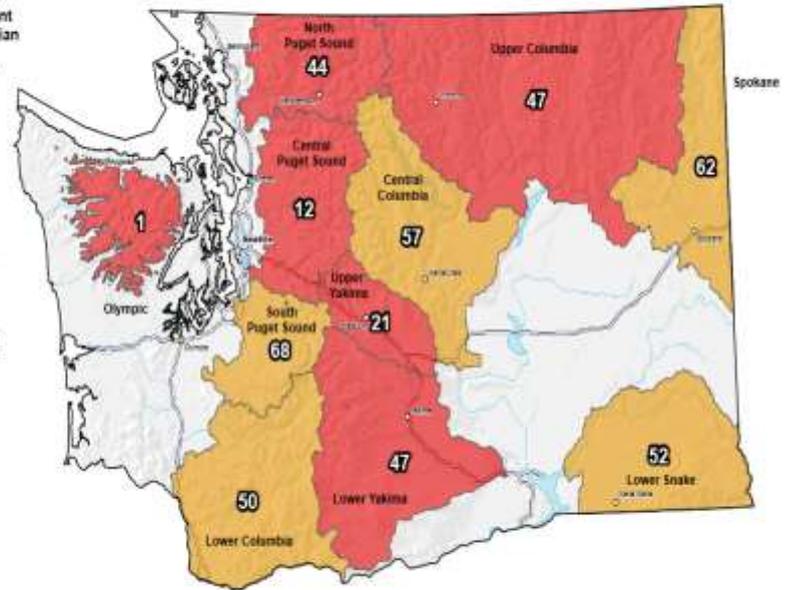
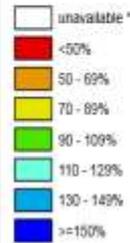
The snow water equivalent percent of normal represents the current snow water equivalent found at selected SNOTEL sites in or near the basin compared to the average value for those sites on this day. Data based on the first reading of the day (typically 00:00).

Prepared by:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.nrc.nrc.usda.gov>

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

Jun 01, 2016

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:
USDA/NRCS National Water and Climate Center
Portland, Oregon
<http://www.nrc.nrc.usda.gov>

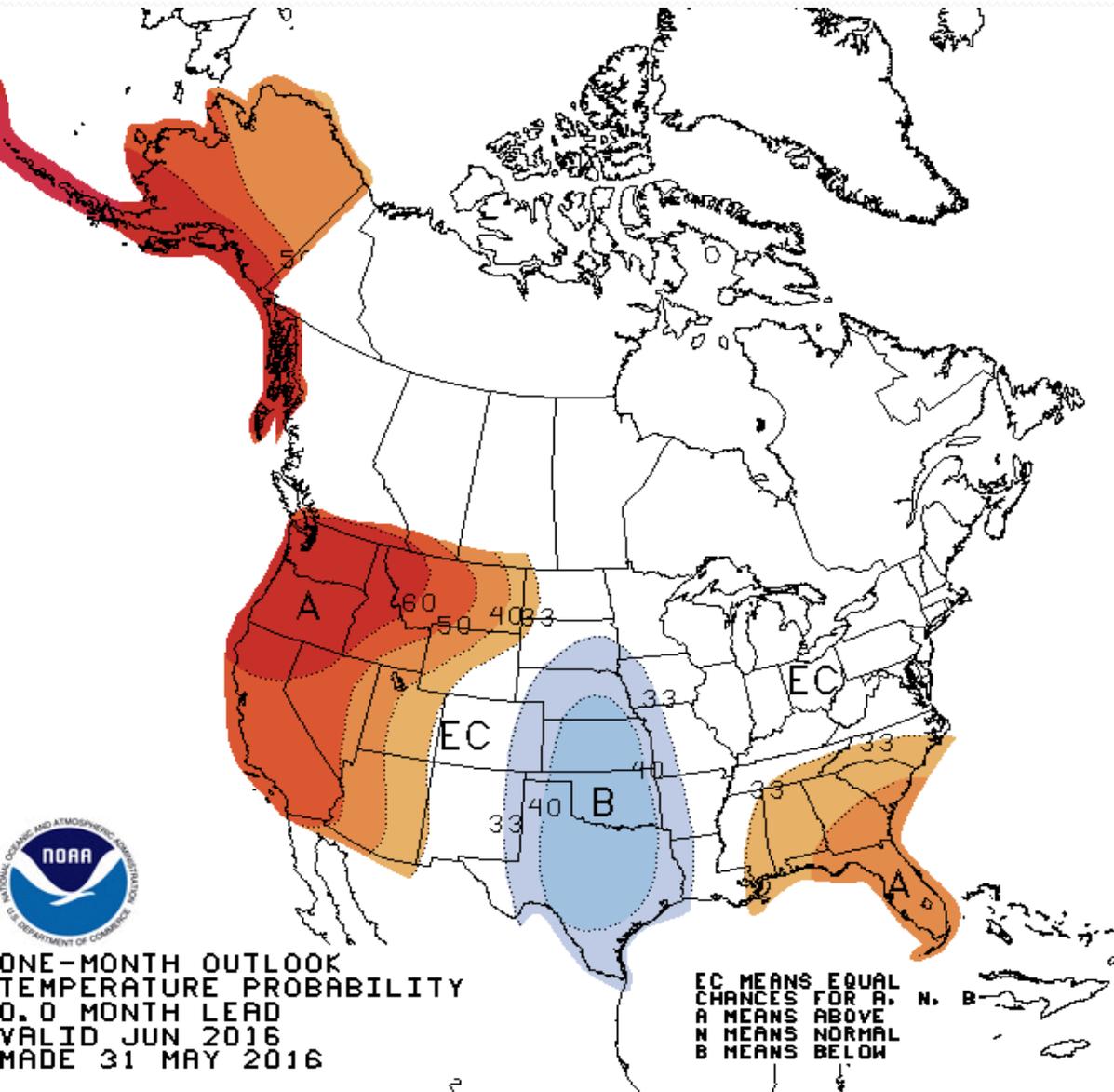
May 2nd 2016: 54 to 96 percent of average SWE

June 1st 2016: 1 to 68 percent of average SWE



June Outlook

June Temperature Outlook



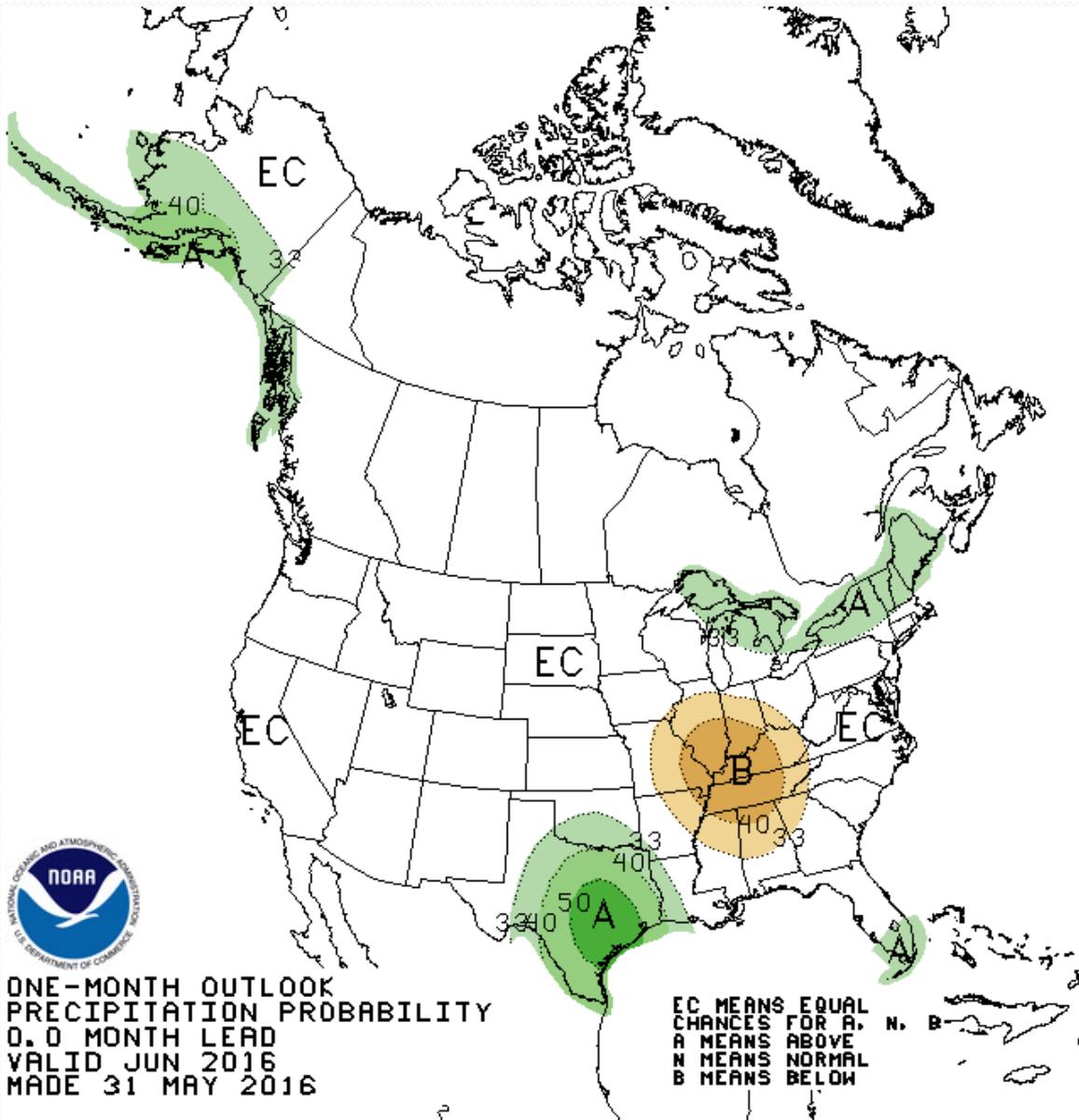
This graphic is issued by the Climate Prediction Center or CPC and is the Temperature Outlook for the month of June. The cool colors indicate a greater chance of below normal temperatures and the warm colors represent a greater chance of above normal temperatures. The time period for the normals runs from 1981-2010. Most of the Inland Pacific Northwest has a 60+ percent chance for above average temperatures in the month of June. This higher probability for warmth extends down the entire West Coast into California, north to most of Alaska, and east to Montana. There are higher probabilities for below average temperatures across Texas northward into the central Plains.

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID JUN 2016
MADE 31 MAY 2016

June Precipitation Outlook

This graphic is CPC's Precipitation Outlook for the month of June. The green colors represent a greater chance of above normal precipitation, and the brown colors represent a greater chance of below normal precipitation. All of Oregon and Washington have equal chances for above, below or near normal precipitation in the month of June. There are higher chances for above average precipitation over southwest Alaska, much of Texas and parts of the Northeast/Great Lakes. There are higher chance for below average precipitation over the Tennessee and Mid-Mississippi River Valleys. Please remember that these are probabilities of averages, and that the day-to-day weather will still vary for the month .



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0, 0 MONTH LEAD
VALID JUN 2016
MADE 31 MAY 2016



Thank You!