

The Month In Review

April 2020

National Weather Service
Pendleton, Oregon

April, 2020 Climate Summary

The month of April can be characterized as relatively calm with near seasonal normal temperatures, but below normal precipitation for most areas. There was one significant thunderstorm event during the month which dropped some medium to large hail over NE Oregon on the 29th. There was also a report of strong thunderstorm wind gusts in the John Day area, of east central Oregon, in the John Day Highlands. Otherwise, there were few significant weather events during the month and it was a relatively benign month as far as the weather goes. Below are a few photos taken during the month that were interesting, and which showed typical conditions during the month (i.e. a few showers/thunderstorms, but also quiet evenings). It was a dry month as well at most locations. The Pendleton, OR Airport had a deficit of 0.99 inches of precipitation from the normal of 1.20 inches, which resulted in only 0.21 of an inch of rainfall for the Month. Kennewick, WA was the warmest with an average high of 69.4 degrees, and La Grande, OR was the coolest with an average high of 55.9 degrees.



Rainbow over the Eastern Oregon Regional Airport in a spring shower.



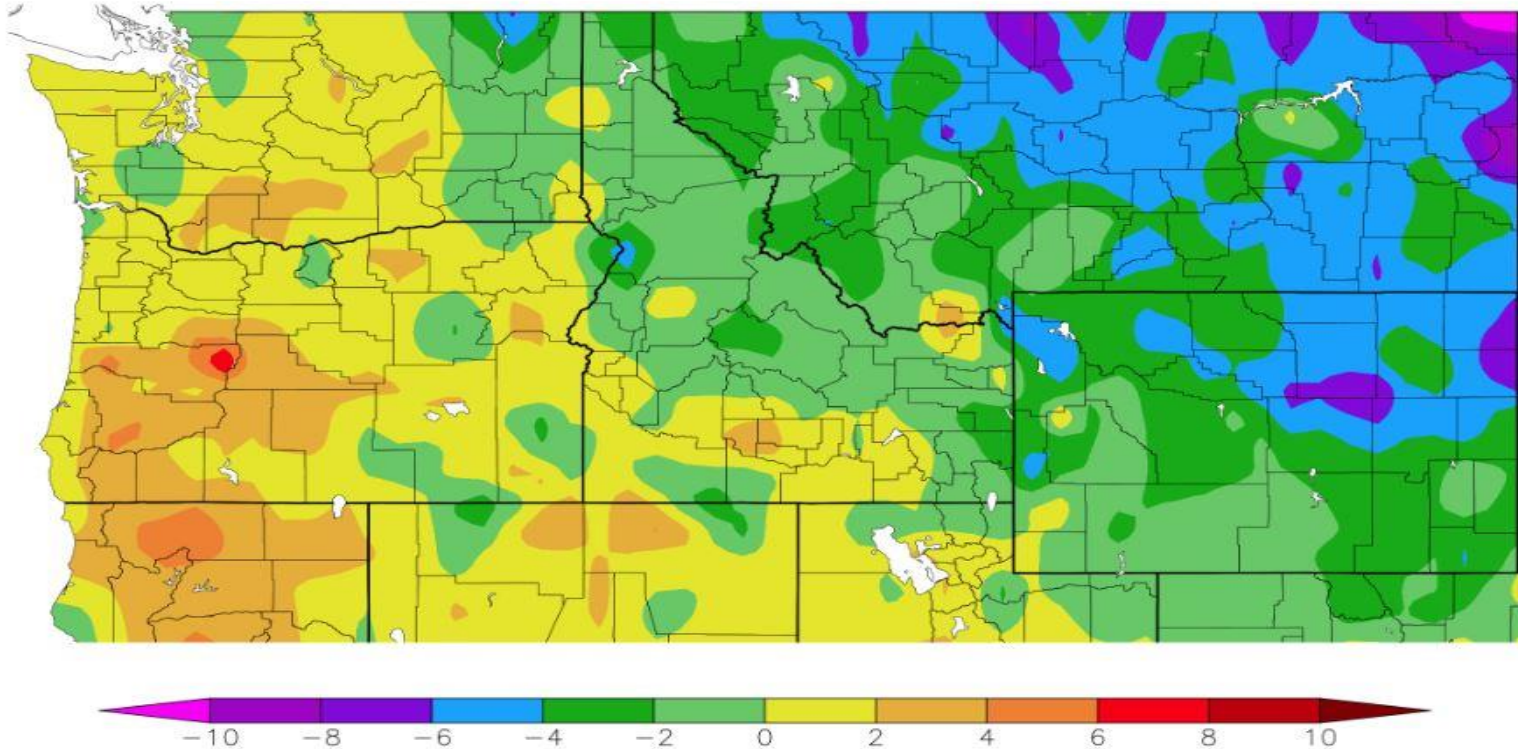
Towering Cumulus about to develop into Thunderstorms over the Blue Mountains.



Quiet evening sunset over the Lower Columbia Basin, with a few high clouds.

April 2020, Departure from Normal of Average Temperatures

Departure from Normal Temperature (F)
4/1/2020 – 4/30/2020



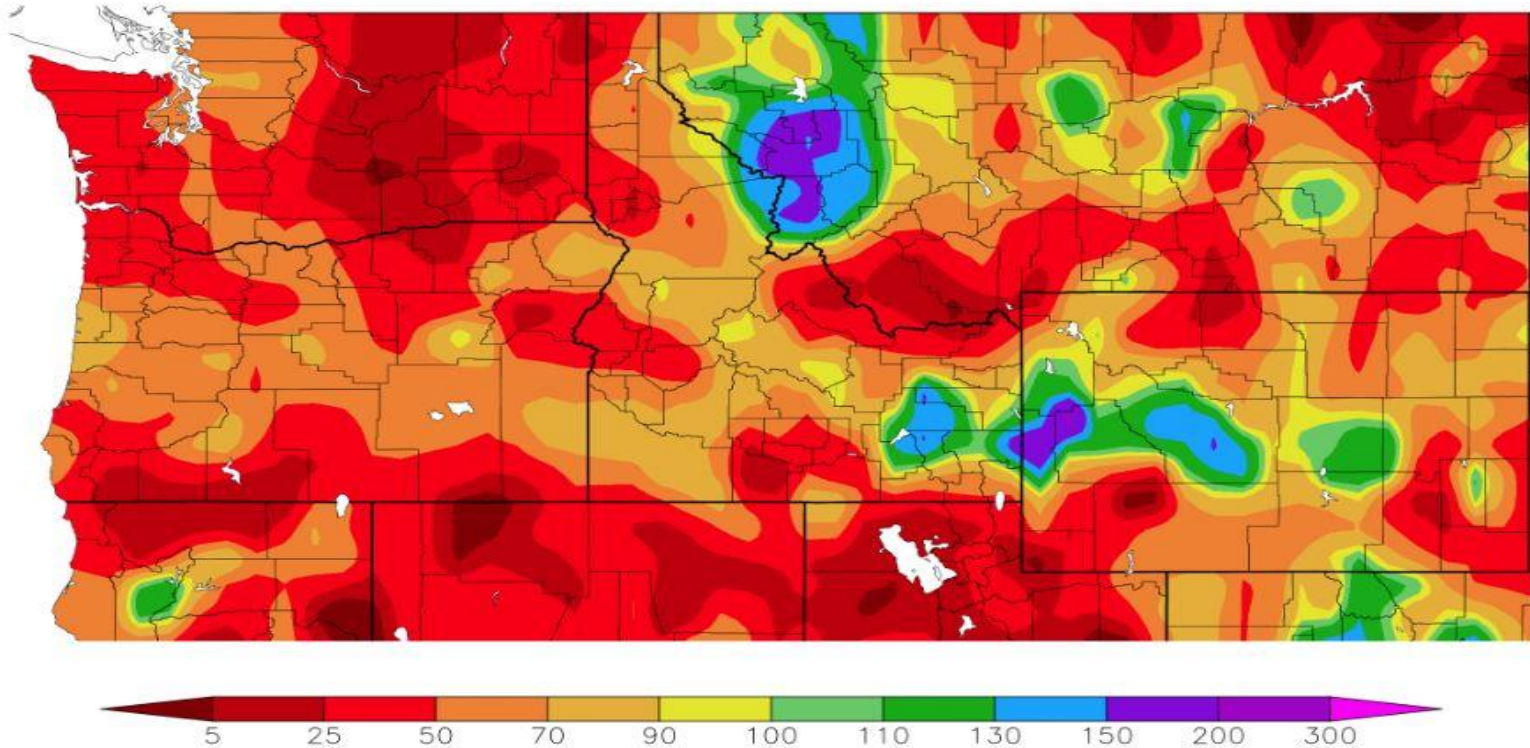
Generated 5/2/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

The image above shows that most of the forecast area had near to slightly above normal temperatures for the month. The coolest areas were in the northeast corner of OR and southeast WA. The warmest areas were in western Deschutes County where there was a small bulls eye area of 4 to 6 degrees above normal average temperatures.

April 2020, Percent of Normal of the Average Precipitation

Percent of Normal Precipitation (%)
4/1/2020 – 4/30/2020



Generated 5/2/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

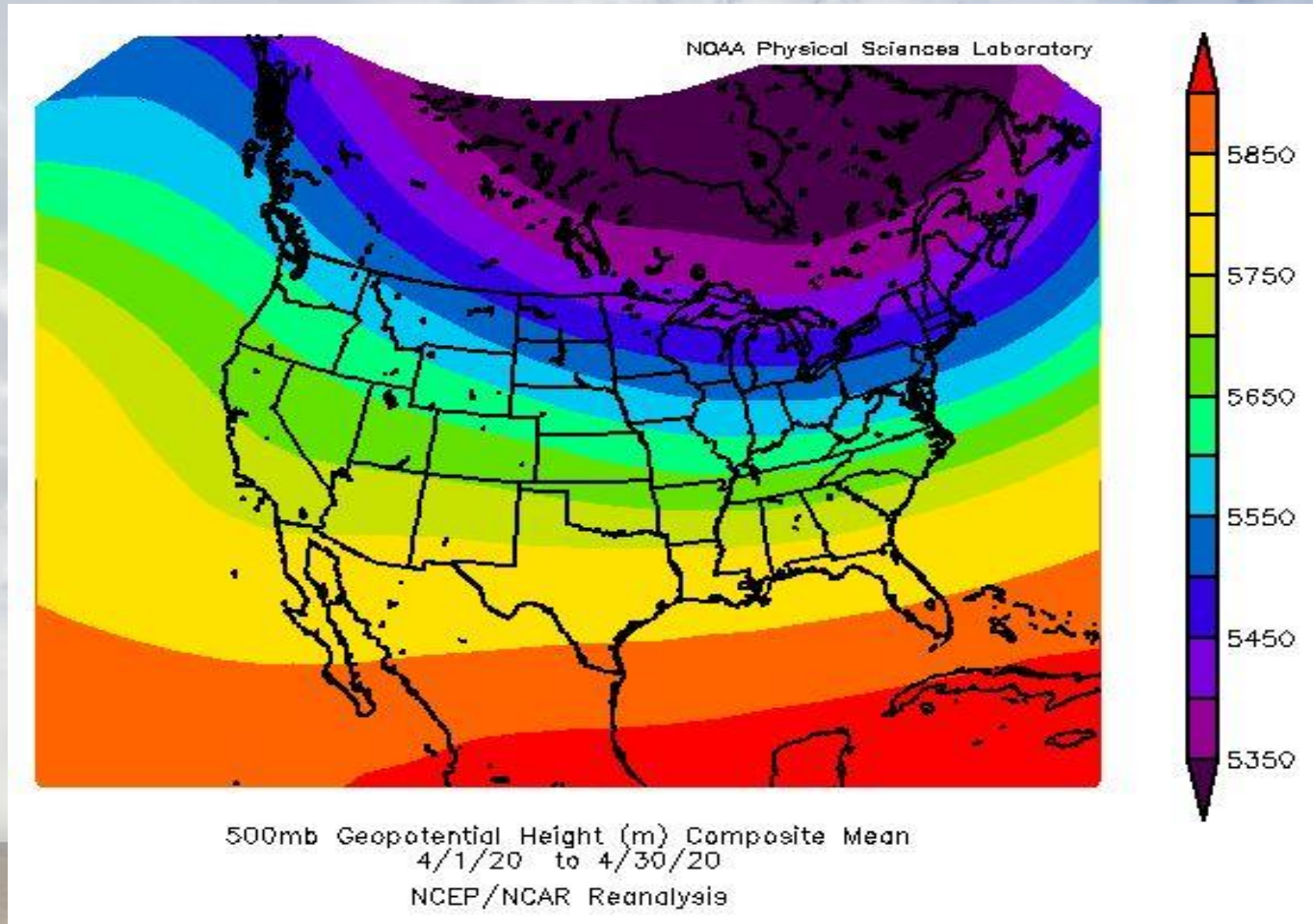
The entire forecast area had significant departure from normal precipitation as seen by the large area of reds and oranges. The driest area was in the Lower Columbia Basin of both OR and WA, with precipitation being as much as 5 to 50 percent below the average precipitation for the month. The wettest area was near John Day, OR in southeast Grant County.

April 2020, Departures from Normal of Averages for Select Cites

	Max T	Max T D	Min T	Min T D	Ave T	Ave T D	PCPN	PCPN D
Yakima	68.2	4.4	35.5	1.1	51.9	2.8	0.07	-0.48
Kennewick	69.4	3.1	41.0	-1.3	55.2	0.9	0.13	-0.43
Walla Walla	63.4	0.9	39.9	-2.1	51.6	-0.6	0.65	-1.27
The Dalles	67.6	3.2	42.0	0.5	54.8	1.9	0.41	-0.38
Redmond	64.5	4.9	30.0	0.9	47.2	2.8	0.61	-0.12
Pendleton Airport	66.4	4.3	38.2	-1.0	52.3	1.6	0.21	-0.99
La Grande	55.9	-2.4	32.3	-2.8	35.7	-11.0	Missing	Missing

The data above shows that most stations had above normal mean average **high** temperatures and there was about an equal split on the mean average **lows** for above vs below normal minimum temperatures. Mean **average** temperatures were mostly above normal except for Walla Walla and La Grande which were below normal. Precipitation departure from normal shows that all stations (except La Grande, OR) in the list had below normal precipitation for the month (brown color), which corresponds to the previous slide showing percent of normal precipitation. This image is all consistent with the previous two images with respect to above vs below average temperatures and precipitation.

April 2020 Average 500 MB Weather Pattern



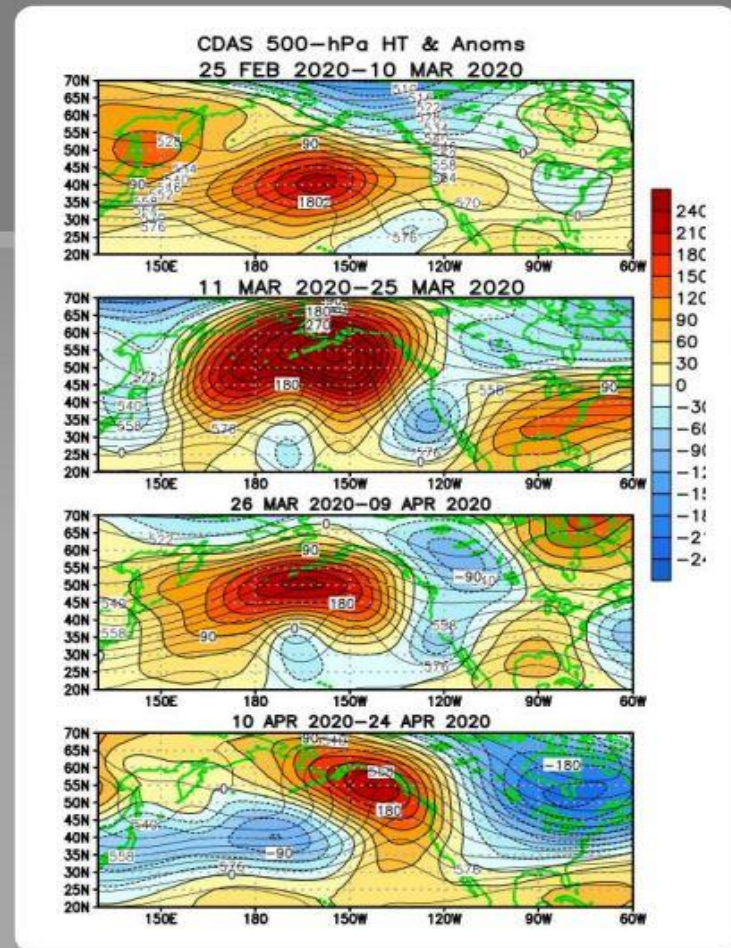
The average 500 mb pattern over the Pacific Northwest was an overall northwest flow with slight ridging flow pattern aloft. This supports slightly above normal temperatures and below normal precipitation for the region. In the first image of departure from average temperatures, it was near to slightly above normal for April, and percent of average precipitation was well below normal. The next image will break down the 500 mb pattern into 15 day periods over the last 2 months.

More Detailed 500 MB Plots for April 2020

Atmospheric anomalies over the North Pacific and North America During the Last 60 Days

During mid-March, heights and temperatures switched from mostly above average to below average over the western United States. Over the eastern United States, heights and temperatures were above average.

Below-average heights and temperatures expanded eastward into central and eastern North America in mid April.



The image above shows more detailed 500 mb plots for the past 2 months. What was an average upper ridge that transitioned into an average trough in March transitioned back to a stronger upper ridge by the end of April. This likely accounts for the near to the slightly above normal temperatures and below normal precipitation for the month.

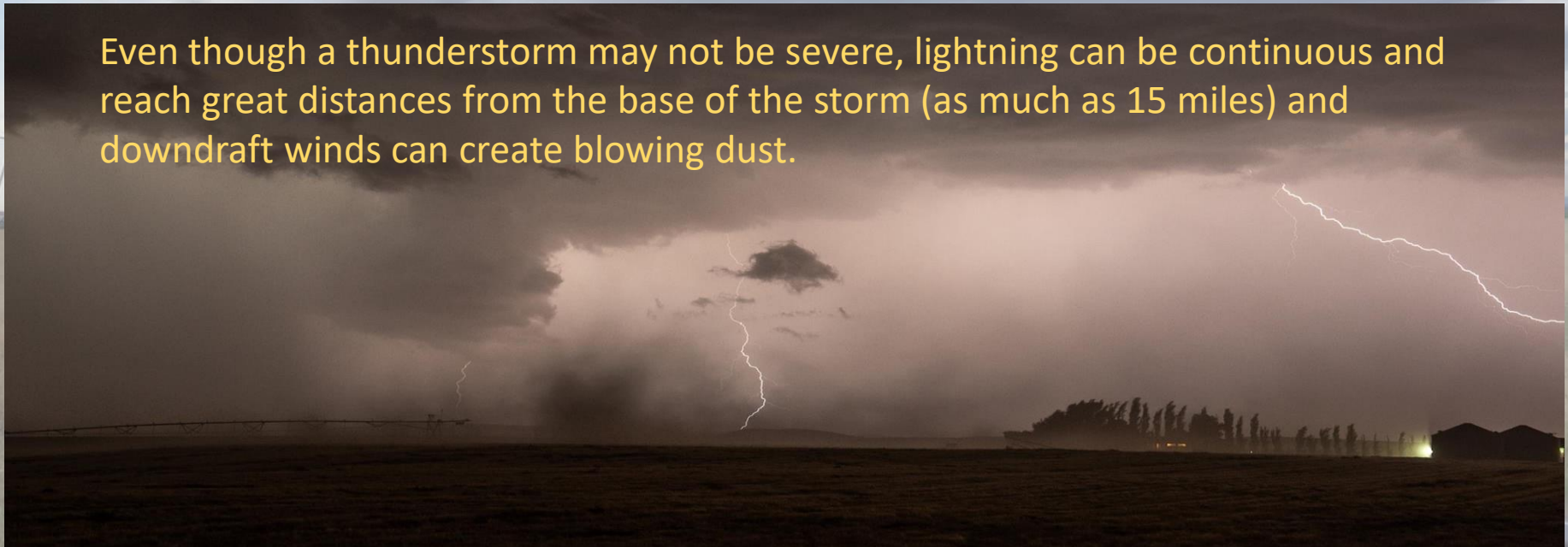
Significant Weather Events for April, 2020

Significant Weather Events					
Event	Date	Report	Where	Source	
Hail	April 29, 2020	E 0.88 inch	S Summerville, OR	Trained Spotter	
Hail	April 29, 2020	E 0.25 inch	5 S Canyon City, OR	Trained Spotter	
Hail	April 29, 2020	M 0.50 inch	5 NNE La Grande, OR	Trained Spotter	
Tstm Wind Gust	April 29, 2020	M 48 mph	1 SW Canyon City, OR	AWOS	

Record Weather Reports					
Event	Date	Where	Previous Record	New Record	Records Began
High Temp	April 29, 2020	Meacham, OR	76 / 1968	76 (Tied)	1929

The table above shows that there was only one significant event during the month, on April 29, 2020. This was a thunderstorm event which affected mainly the John Day and Canyon City, OR area. There were other weaker storms during the month, and a few rain episodes, but none were of any significance.

Even though a thunderstorm may not be severe, lightning can be continuous and reach great distances from the base of the storm (as much as 15 miles) and downdraft winds can create blowing dust.



April 2020 Observed Monthly Max & Min Temperatures

Location	Highest Maximum Temperature	Lowest Minimum Temperature
Pendleton, OR	78	28
Redmond, OR	79	16
Pasco, WA	83	23
Yakima, WA	80	19
Walla Walla, WA	74	27
Bend, OR	76	22
Ellensburg, WA	77	20
Hermiston, OR	81	22
John Day, OR	80	19
La Grande, OR	71	25
The Dalles, OR	79	30
MT Adams RS, WA	71	23

The highest maximum temperatures were mostly in the 70s, with a few lower 80s, which was about 10 degrees warmer than March. These are near normal, however. The warmest was at Pasco, WA with 83 degrees. The nights were still chilly though at times, with the coldest being at Redmond, OR with a low of 16, and the least coldest at The Dalles, OR with the lowest being 30 degrees.

April 2020, Monthly Precipitation and Snowfall Totals

Location	Total Monthly Precip (inches)	Total Snowfall (inches)
Pendleton, OR	0.21	T
Redmond, OR	0.61	0.0
Pasco, WA	0.19	0.0
Yakima, WA	0.07	0.0
Walla Walla, WA	0.65	0.0
Bend, OR	0.41	M
Ellensburg, WA	0.13	M
Hermiston, OR	0.03	0.0
John Day, OR (RAWS)	1.26	0.2
La Grande, OR	M	M
The Dalles, OR	0.41	M
Mt Adams RS, WA	0.29	T

All stations had below normal (some well below normal) precipitation, except maybe John Day, which had a severe thunderstorm on the 29th, with hail. Hail is considered to be “snow” for climate purposes, which may be why there was 0.2 inch of snow reported for the month. The least amount of precipitation was reported at Hermiston, OR of only 0.03 of an inch for the month, followed by Ellensburg, WA with only 0.13 of an inch.

April 2020 - Drought Monitor

U.S. Drought Monitor West

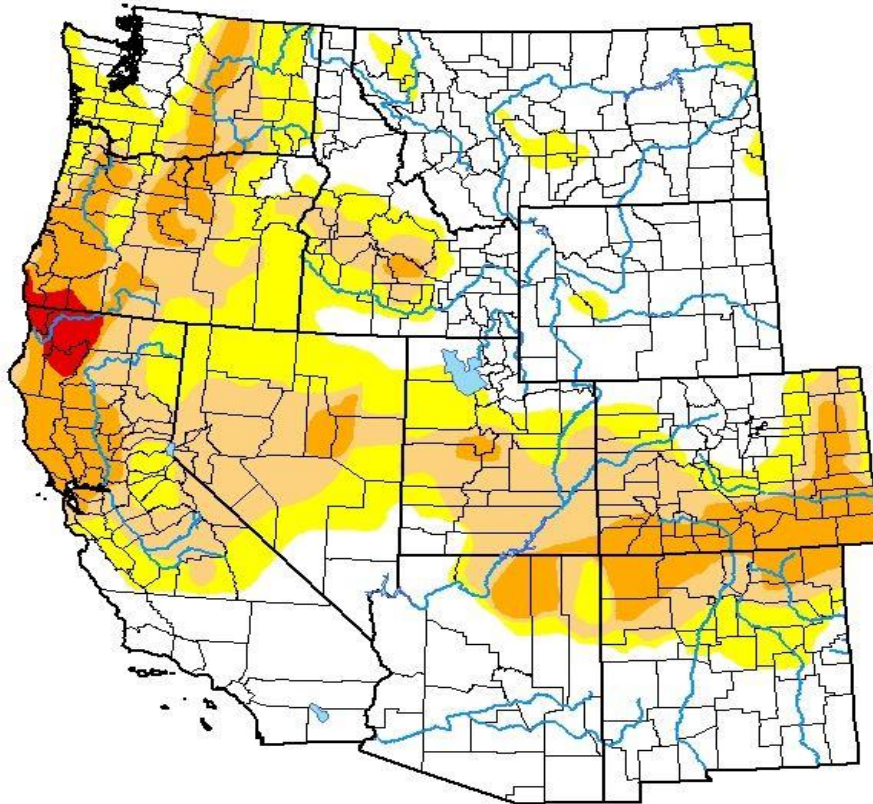
April 28, 2020

(Released Thursday, Apr. 30, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	49.94	50.06	29.95	11.91	0.81	0.00
Last Week 04-21-2020	51.39	48.61	28.64	10.92	0.81	0.00
3 Months Ago 01-28-2020	55.43	44.57	18.96	3.08	0.00	0.00
Start of Calendar Year 12-31-2019	59.17	40.83	18.17	7.12	0.00	0.00
Start of Water Year 10-01-2019	68.40	31.60	16.32	3.16	0.00	0.00
One Year Ago 04-30-2019	83.39	16.61	3.64	0.69	0.00	0.00



Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

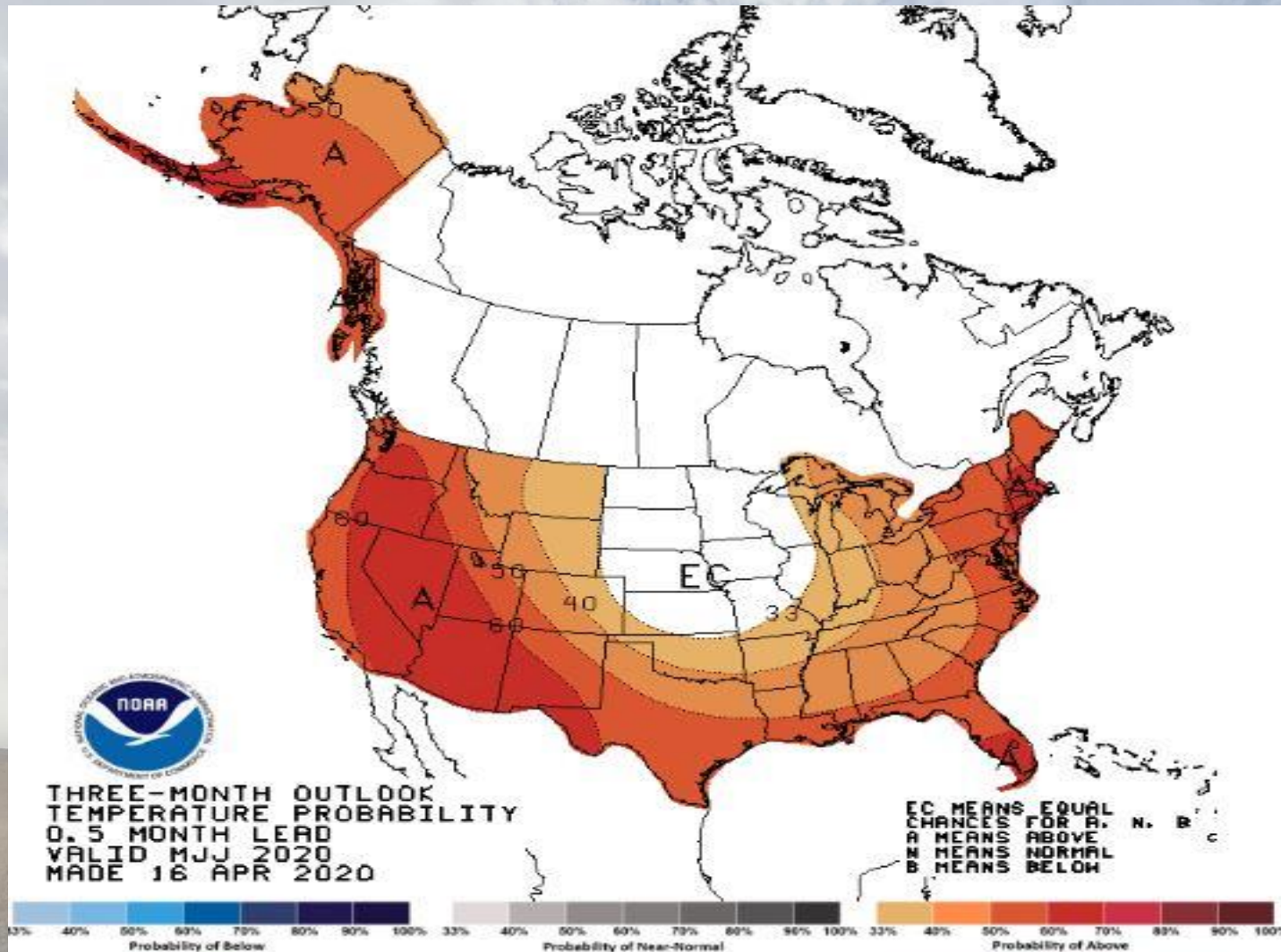
Deborah Bathke
National Drought Mitigation Center



droughtmonitor.unl.edu

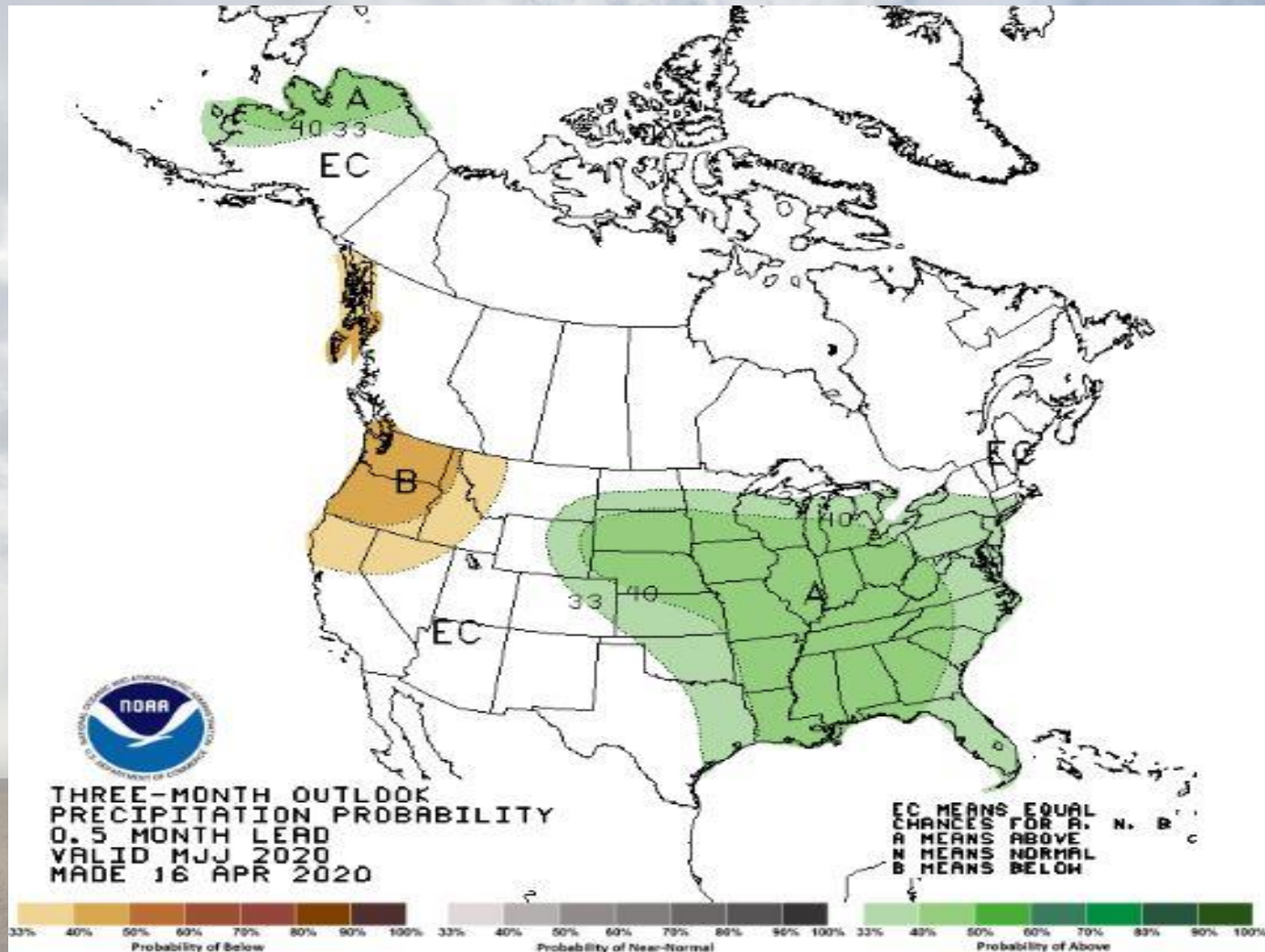
As of late April (the 28th) most of the forecast area was in a drought classification of “Abnormally Dry (D0) to a Severe Drought” (D2). However, the northeast corner of OR was in a neutral or “none” zone.

USA Three Month Temperature Outlook



The temperature outlook for the three months of May, June, & July shows about a 50-60 percent chance of having above normal temperatures for all of the forecast area.

USA Three Month Precipitation Outlook

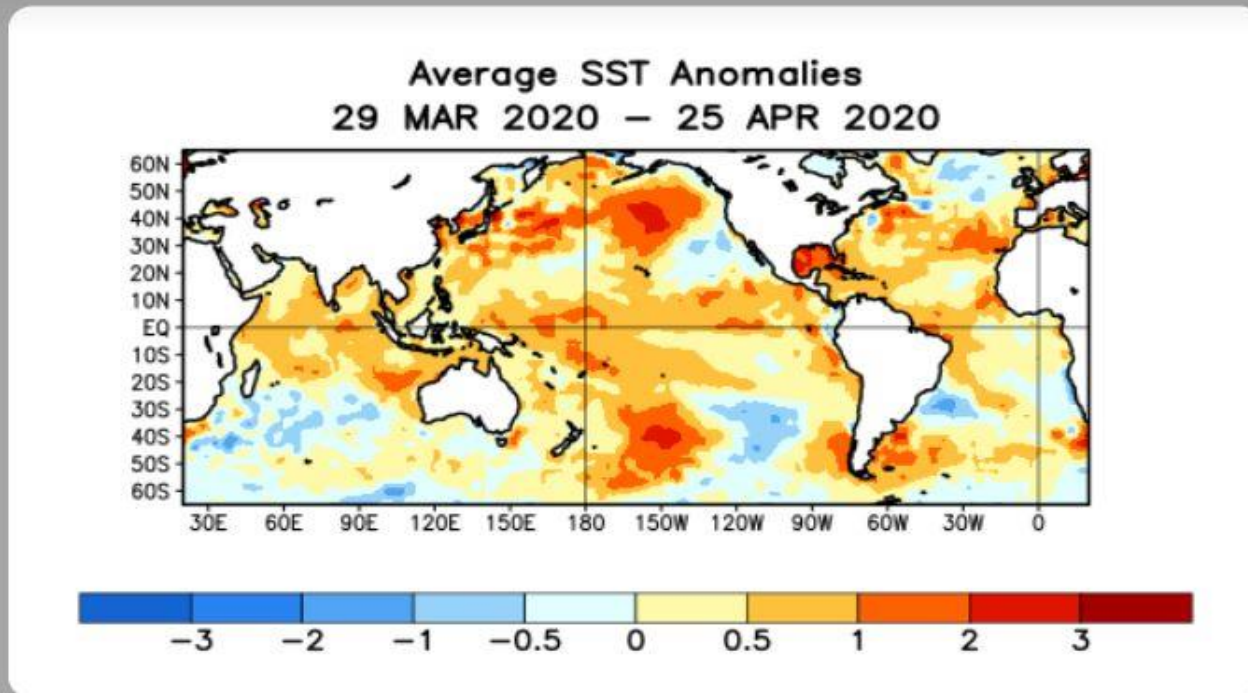


The percent of normal precipitation outlook for the three months of May, June, & July shows that the entire forecast area will have a 40 percent chance of below normal precipitation for the period.

Sea Surface Temperature (SST) analysis for April 2020

Global SST Departures (°C) During the Last Four Weeks

During the last four weeks, equatorial SSTs were above average across most of the Pacific Ocean, the western Atlantic Ocean and the Indian Ocean.



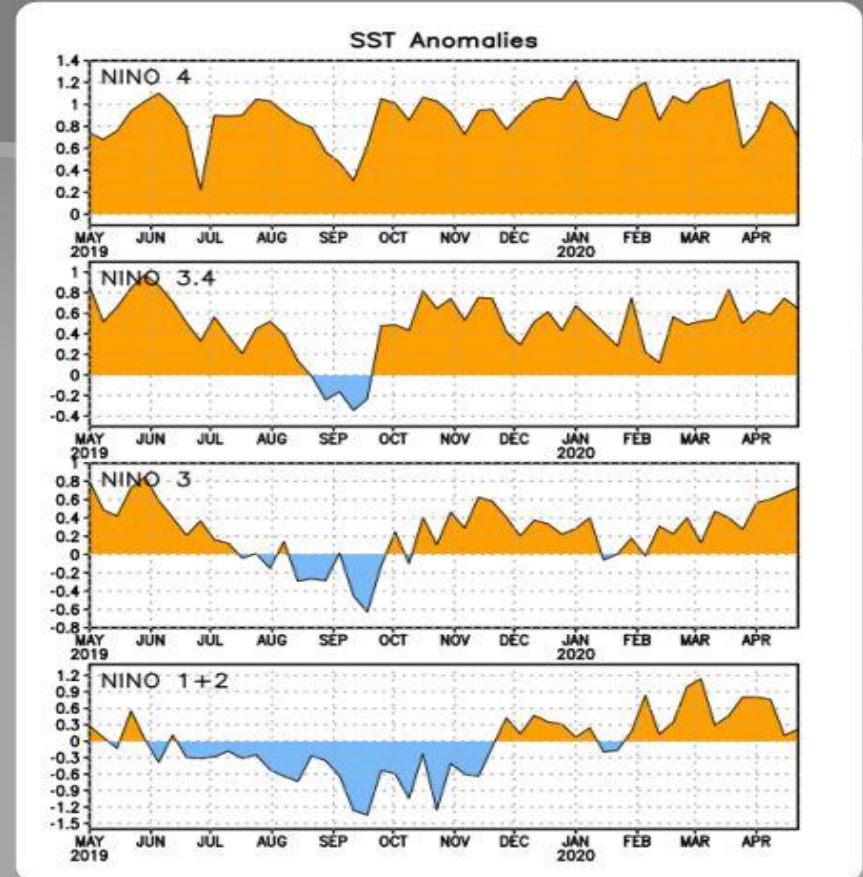
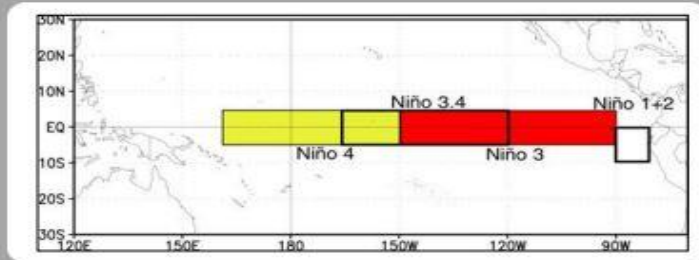
SSTs were above average for most of the tropical Pacific ocean. These anomalies do not alone indicate either an El Nino or a La Nina event. However, this slide is consistent with the above normal temperatures and below normal precipitation for April as shown in the previous slides, for the Pacific Northwest.

El Nino/ La Nina Regions, Showing SST Anomalies for Each Nino Region

Niño Region SST Departures (°C) Recent Evolution

The latest weekly SST departures are:

Niño 4	0.7°C
Niño 3.4	0.6°C
Niño 3	0.7°C
Niño 1+2	0.2°C



All Niño Regions showed above normal SST (Sea Surface Temperature) anomalies since late February. Still, this alone does not indicate an El Niño or a La Niña Event. In fact, the latest ENSO Status Alert indicates that ENSO status is still neutral and that it will remain neutral through this coming summer and most likely remaining during the autumn as well.

Current ENSO (El Nino Southern Oscillation) Alert System Status

ENSO Alert System Status: Not Active

ENSO-neutral conditions are present.*

Equatorial sea surface temperatures (SSTs) are above average across most of the Pacific Ocean.

The tropical atmospheric circulation is consistent with ENSO-neutral.

ENSO-neutral is favored for the Northern Hemisphere summer 2020 (~60% chance), remaining the most likely outcome through autumn.*

In the previous two slides, both showed warmer than normal SSTs. However, the ENSO Alert System Status is still shown as “Not Active”, meaning that we are not in either an El-Nino or a La-Nina status, but in a “Neutral” ENSO status. These neutral conditions are forecast to continue through the spring and summer, and most likely into autumn of 2020 (about an overall 60 percent chance) as of the end of April.



Thank You!