

The Month In Review

April 2021

National Weather Service
Pendleton, Oregon

Photo: Black bear coming out of hibernation

April 2021, Climate Summary

The weather in April 2021 was mostly benign with regard to hazardous or severe weather. The most significant characteristic of the month was its dryness, while April is climatologically one of the wettest months of the year. It was one of the driest April's on record. Some stations reported their all time driest month of April, including La Grande, OR and Kennewick, WA. Most stations were in the top ten driest April's since records began. The lowest amounts of precipitation were at Pasco, WA, Ellensburg, WA, The Dalles, OR, Hermiston, OR and Yakima, WA, with all these stations reporting less than a tenth of an inch of precipitation for the month. The station with the most precipitation was at the Mt. Adams Ranger Station, with 0.48 inches (but still less than a half inch). The only significant weather that occurred was on the 8th, with some snow and a high non-thunderstorm wind gust report (though not severe). There were numerous record low temperatures recorded on the 11th – 13th. However, the month was, overall, slightly warmer than normal. Below are some typical scenes in the forecast area during the month of April 2021.



Early season wildfire in brush at the Yakima River Delta. Photo by Rashele VanDinter-Darcy.



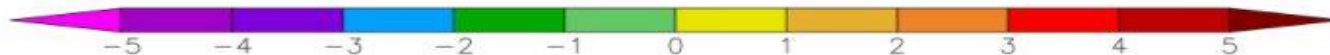
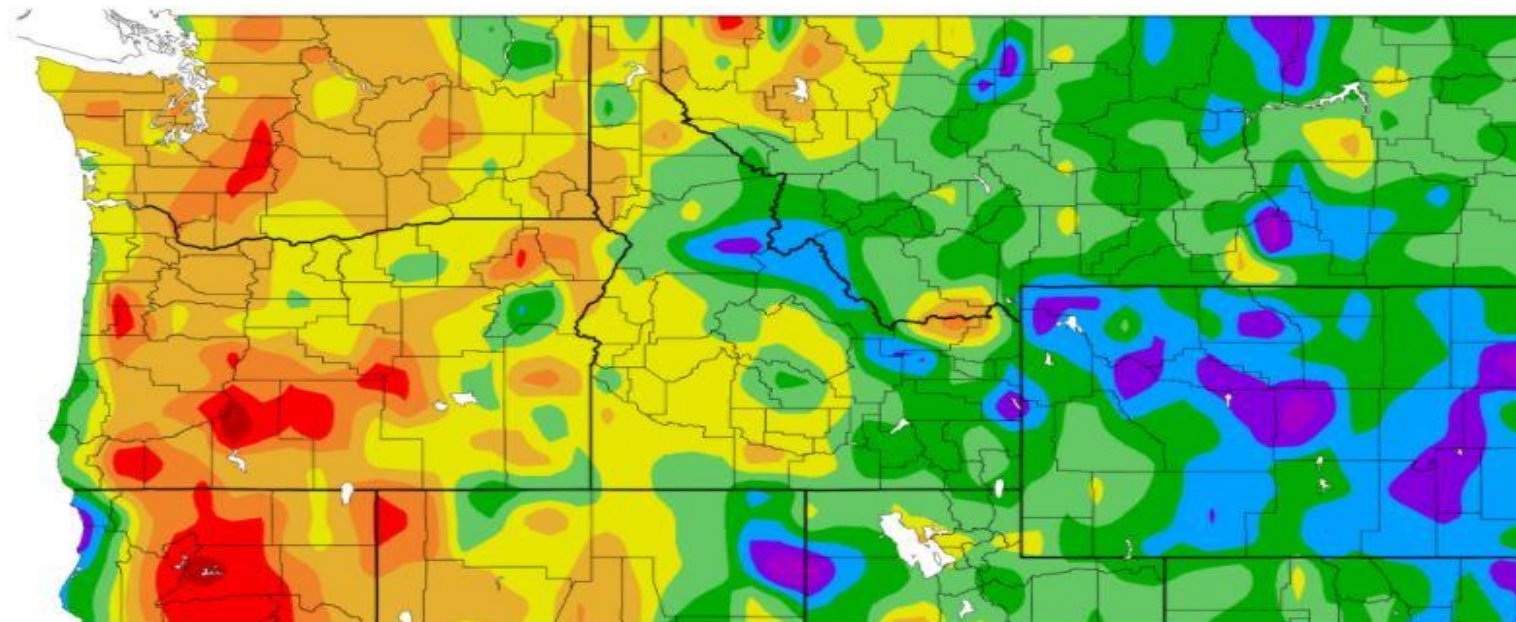
Spring snow melting at 5000 ft in the Northern Blue Mountains, with an interesting sky of alto-cumulus clouds.



Little snow left at Emigrant Springs State Park & Campground, near Meacham, OR.

April 2021, Departure from Normal of Average Temperatures

Departure from Normal Temperature (F)
4/1/2021 – 4/30/2021



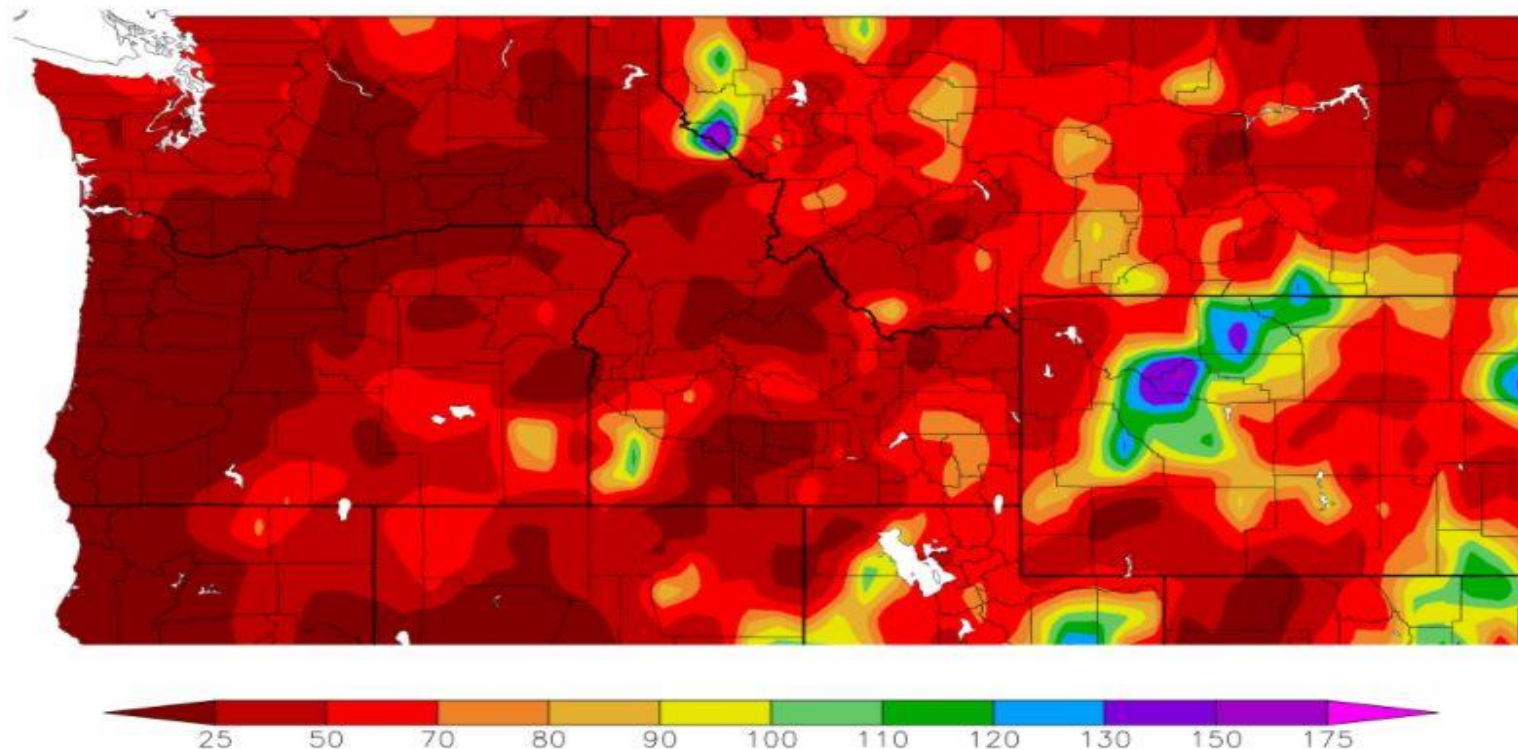
Generated 5/6/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

Most of the forecast area (central-northeast Oregon and south central-southeast Washington) had above normal temperatures which ranged from 1 to 4 degrees above normal. The exceptions were over small areas in north central and northeast Oregon and a very small area in southeast Washington.

April 2021, Percent of Normal of Precipitation

Percent of Normal Precipitation (%)
4/1/2021 – 4/30/2021



Generated 5/6/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

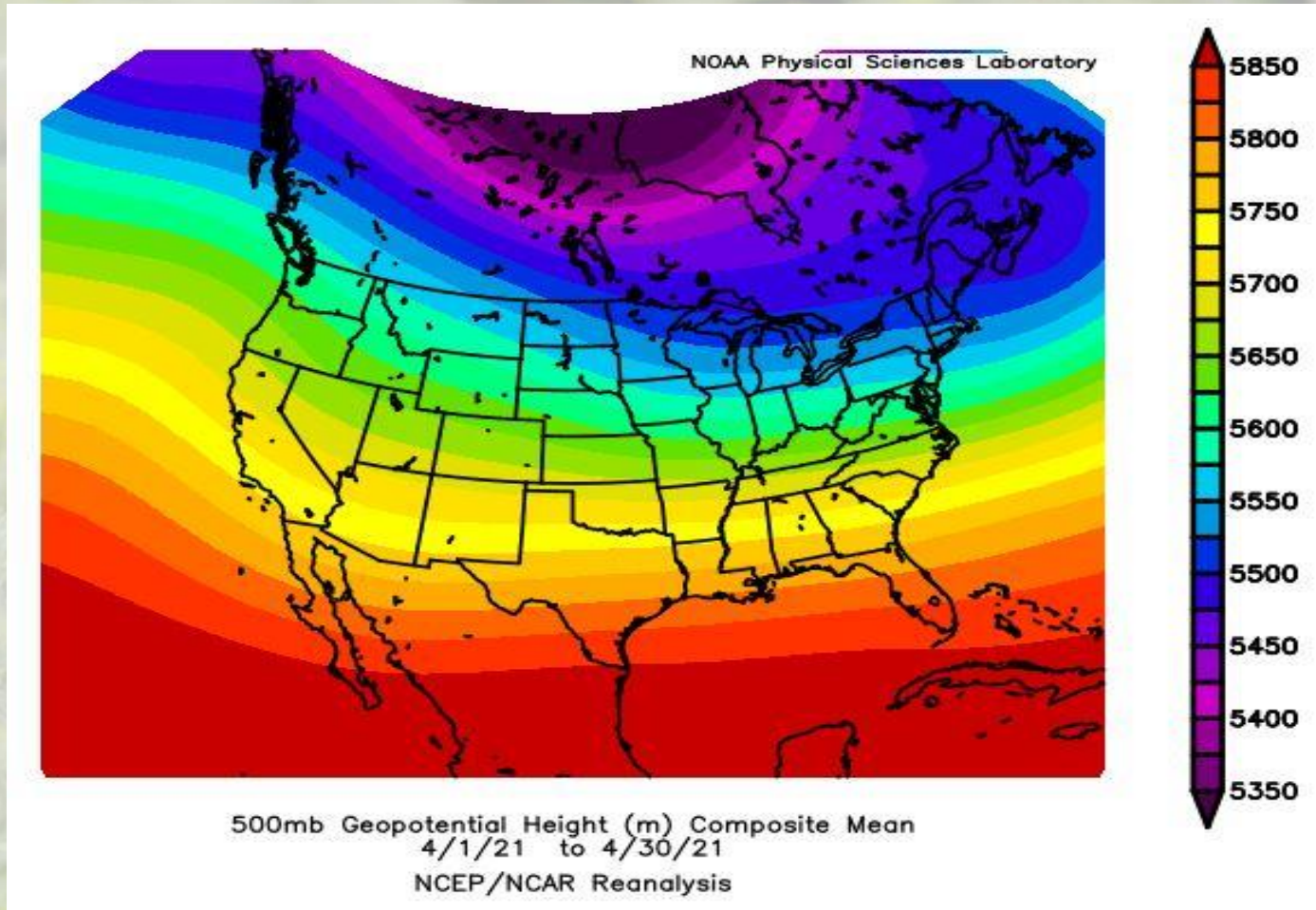
This image shows how significantly drier than normal the month of April was. The percent of normal precipitation ranged from as low as 0-25 percent of normal to areas that had 70 percent of normal precipitation. This was one of the driest months of April on record, since records began. None of the forecast area or the entire Pacific Northwest had any areas of above normal precipitation.

April 2021, Departures from Normal Averages/Sums for Select Cities

	Max T	Max T D	Min T	Min T D	Ave T	Ave T D	PCPN	PCPN D	Driest Rank
Yakima	68.1	4.3	34.6	0.2	51.3	2.2	0.04	-0.51	9th
Kennewick	69.6	3.3	41.6	-0.7	55.6	1.3	T	-0.56	1st
Walla Walla	65.4	2.9	40.0	-2.0	52.7	0.5	0.22	-1.70	3rd
The Dalles	69.1	4.7	39.3	-2.2	54.2	1.3	0.09	-0.70	11th
Redmond	65.5	5.9	28.1	-1.0	46.8	2.4	0.16	-0.57	14th
Pendleton Airport	65.7	3.6	36.1	-3.1	50.9	0.2	0.22	-0.98	8th
La Grande	62.5	4.2	31.4	-3.7	47.0	0.3	0.14	-1.44	1st
John Day	66.4	6.0	35.3	2.4	50.9	4.2	0.24	-1.15	6th

The table above shows that all of the average maximum temperatures were above normal. However, most of the average minimums were below normal, except at Yakima, WA and John Day, OR. All of the mean of the average temperatures were above normal, but only by a couple of tenths of a degree at La Grande, OR, Pendleton, OR, and Walla Walla, WA. All other listed stations was more than a degree above normal of the mean average temperatures. Precipitation were all well below normal, by as much as -1.70 inches at Walla Walla, WA. Also included in this table is the rank of how dry each station was compared to historical records.

April 2021 Average 500 MB Pattern

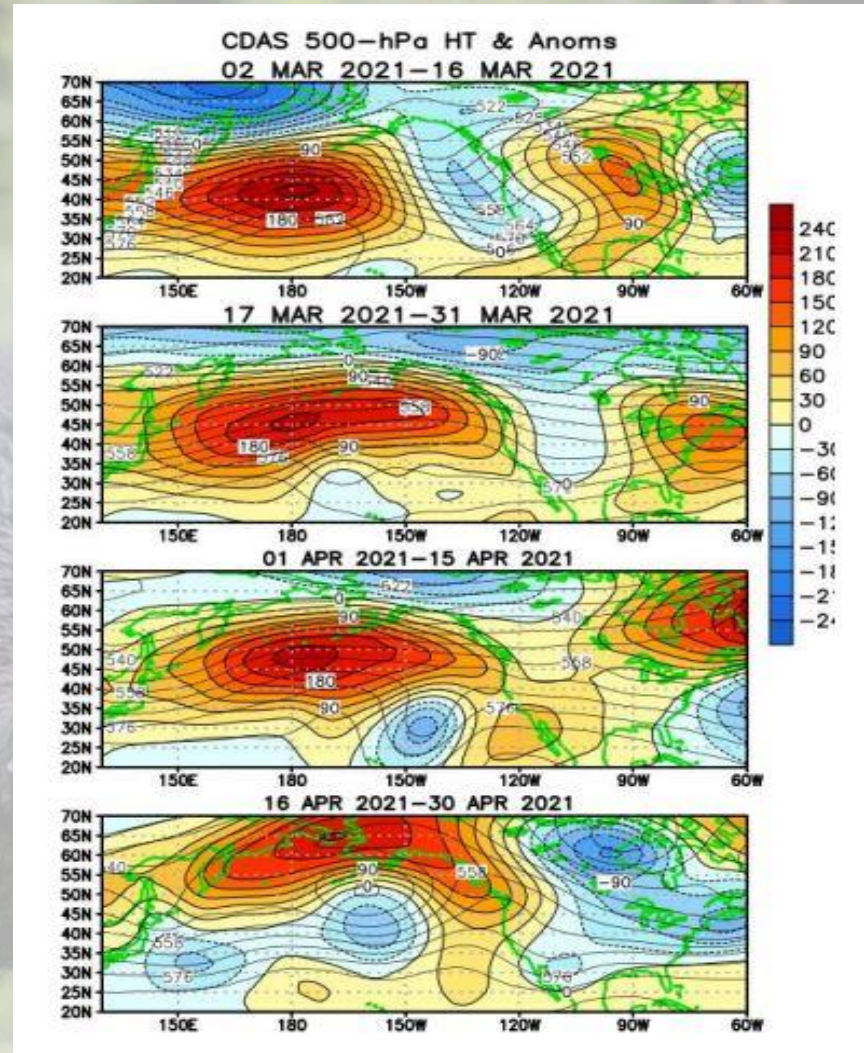


The average 500 MB pattern was an overall ridge pattern along the west coast of the USA, with a dry northwest flow over the Pacific Northwest. This likely is one of the main reasons why the month was so dry, and warmer than normal, with the flow mostly being a dry northwest flow on the east side of a mean upper ridge on average for the month.

Two Month, Bi-weekly 500 MB Plots for March and April 2021

These are more detailed semi-monthly average 500 mb pattern plots, which was from the following period: 2nd March 2021 through 30th of April, 2021.

The land boundaries are shown in green. Yellow and orange colors represent areas of high pressure at 500 mb and the cooler shades of blue color show areas of low pressure at 500 mb.



Only the period from the March 2nd – March 16th had an overall trough pattern over the west coast of the USA. The 2nd, 3rd, and 4th bi-weekly images (the lowest 3 images) all showed an upper ridge pattern near or along the west coast. This is also likely the reason why April 2021 was so dry and also warmer than normal.

Significant Weather Events for April 2021

Significant Weather Events				
Event	Date	Report	Where	Source
Snow	April 8, 2021	E 0.5 inches	6 NNW Ellensburg, WA	Trained Spotter
Non-TSTM Wind Gust	April 8, 2021	M 39 mph	4 NNW Island City, OR	Trained Spotter

There were only 2 events of record that were worthy of being submitted in a Local Storm Report (LSR). Both were on the 8th of the month. One was a small amount of snow, and the other was a non-thunderstorm wind gust which wasn't even high enough to be at the speed criteria of a Wind Advisory or High Wind Warning.

Record Weather Event Reports for April 2021

Record Weather Reports					
Event	Date	Where	Previous Record	New Record	Records Began
Low Temperature	April 11, 2021	Meacham, OR	19 / 1999	18	1948
Low Temperature	April 11, 2021	Pendleton, OR	24 / 1997	23	1934
Low Temperature	April 11, 2021	Pendleton E.S., OR	22 / 1997	16	1956
Low Temperature	April 11, 2021	The Dalles, OR	30 / 1997	27	1948
Low Temperature	April 11, 2021	Yakima, WA	23 / 1954	21	1909
Low Temperature	April 11, 2021	Walla Walla, WA	33 / 2020	27	1949
Low Temperature	April 11, 2021	Pasco, WA	27 / 1905	23	1942
Low Temperature	April 12, 2021	Pendleton, OR	23 / 1903	21	1934
Low Temperature	April 13, 2021	Walla Walla, WA	27 / 1968	27 (tied)	1949
Low Temperature	April 12, 2021	Hermiston, OR	22 / 1922	21	1906
Low Temperature	April 12, 2021	Redmond, OR	15 / 1971	15 (tied)	1941
Low Temperature	April 12, 2021	Pasco, WA	25 / 2011	21	1942
High Temperature	April 18, 2021	Yakima, WA	84 / 1952	85	1909

There were 12 instances which a record low temperature was reported, all of which was during the period from April 11th – 13th. There was one other record, a record high temperature, reported on the 18th of the month at Yakima, WA. Of these reports, 2 of the records were a tie.

April 2021, Observed Monthly Max & Min Temperatures

Location	Highest Maximum Temperature	Lowest Minimum Temperature
Pendleton, OR	83	21
Redmond, OR	87	15
Pasco, WA	89	21
Yakima, WA	85	21
Walla Walla, WA	83	27
Bend, OR	75	20
Ellensburg, WA	81	22
Hermiston, OR	87	21
John Day, OR	89	20
La Grande, OR	84	18
The Dalles, OR	86	27
MT Adams RS, WA	78	21

All of these stations had maximum highest temperatures of greater than 80 degrees, except at Bend, OR with 75 degrees, and at the Mt Adams Ranger Station, which reported a highest maximum of 78 degrees. However, the lowest minimums were quite chilly, with all in the teens and 20s. These cold temperatures likely occurred during the cold spell during the period April 11th – 13th, when 12 record low temperatures were broken.

April 2021, Observed Monthly Precipitation and Snowfall/Hail Totals

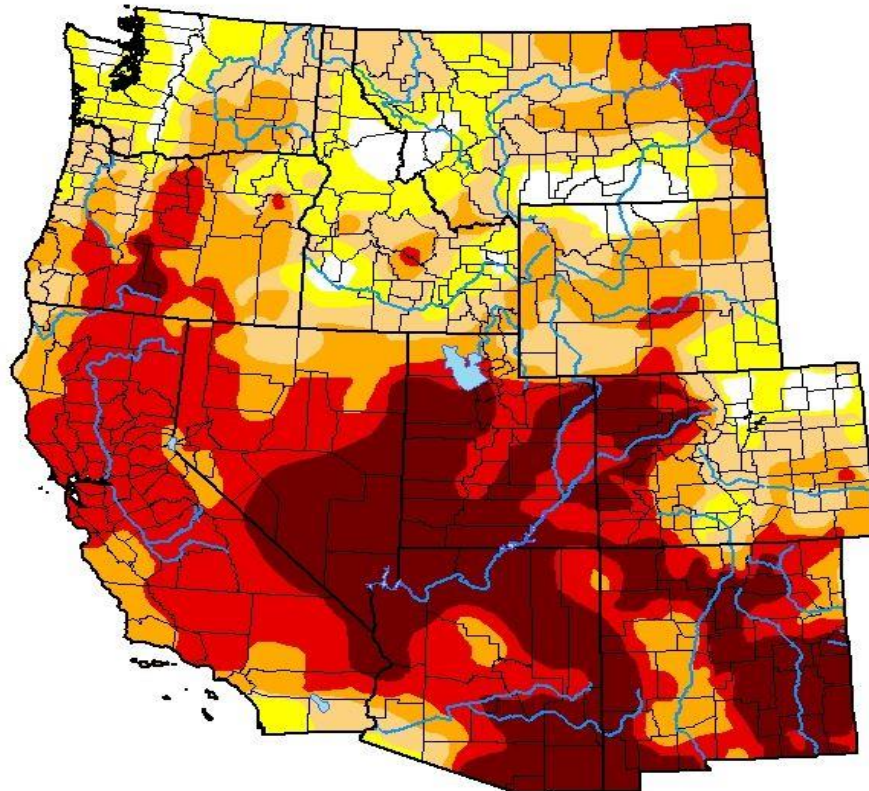
Location	Total Monthly Precipitation (inches)	Total Snowfall/Hail (inches)
Pendleton, OR	0.22	0.0
Redmond, OR	0.16	M
Pasco, WA	T	M
Yakima, WA	0.04	M
Walla Walla, WA	0.22	M
Bend, OR	0.12	0.0
Ellensburg, WA	0.01	M
Hermiston, OR	0.08	M
John Day, OR (RAWS)	0.24	M
La Grande, OR	0.14	M
The Dalles, OR	0.09	M
Mt Adams RS, WA	0.48	0.0

Monthly precipitation totals in the list were quite low, with some stations reporting less than a tenth of an inch for the month, and one station which only reported a trace. The rest of the stations in the list reported total precipitation for the month of 1 to 2 tenths of an inch, except for the Mt. Adams Ranger Station which had 0.48 of an inch. However, even that was below a half of an inch. Snowfall amounts were all 0.0 or missing.

April 2021 - Drought Monitor

U.S. Drought Monitor West

May 4, 2021
(Released Thursday, May. 6, 2021)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	4.25	95.75	84.18	67.07	47.03	21.18
Last Week 04-27-2021	4.02	95.98	83.83	64.71	43.35	21.20
3 Months Ago 02-02-2021	6.75	93.25	79.73	63.73	45.19	21.03
Start of Calendar Year 12-29-2020	11.57	88.43	78.63	65.18	46.49	22.16
Start of Water Year 09-29-2020	8.51	91.49	76.07	54.55	33.11	2.31
One Year Ago 05-05-2020	44.69	55.31	34.13	13.47	2.06	0.00

Intensity:

- None
- 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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>.

Author:

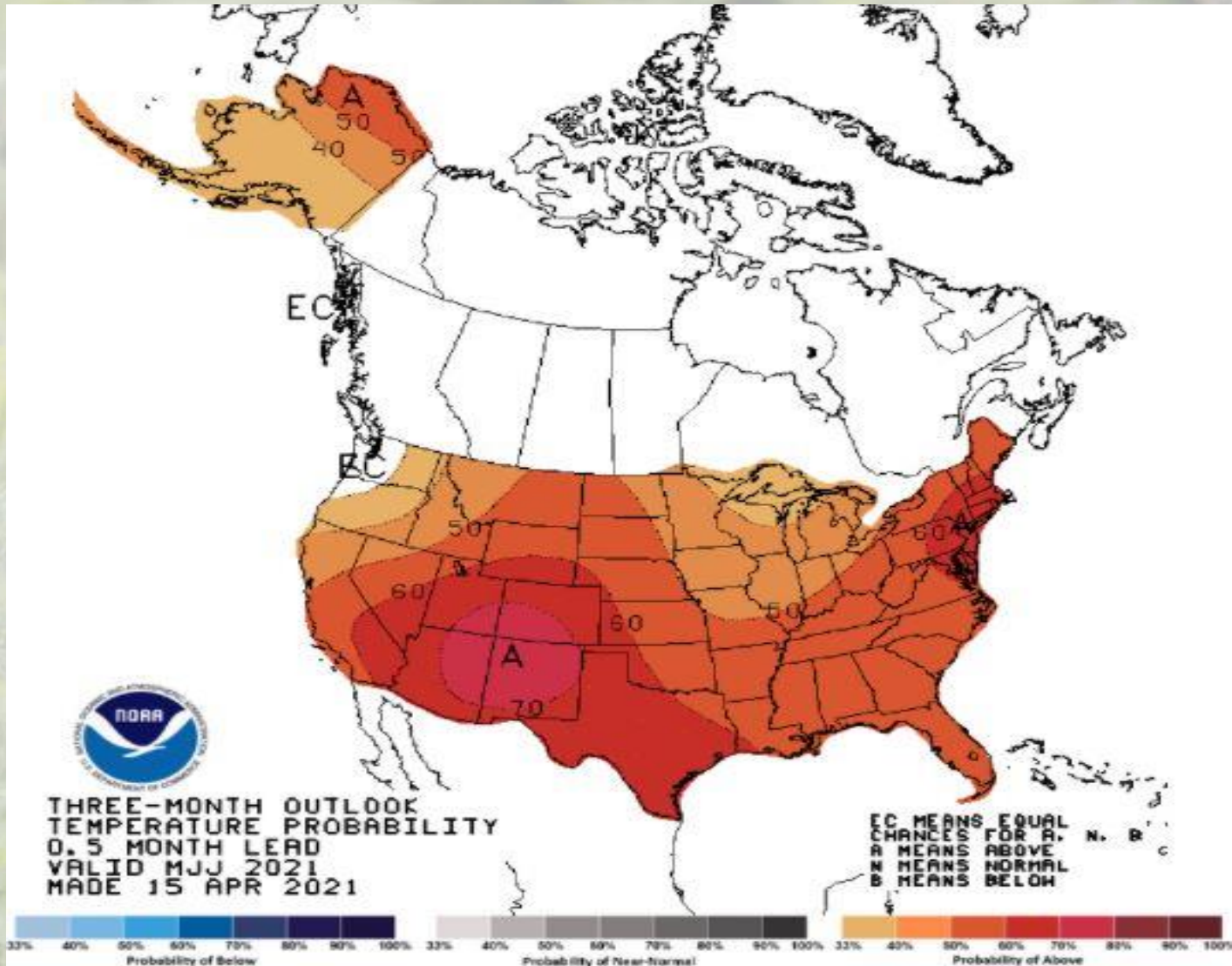
David Simeral
Western Regional Climate Center



droughtmonitor.unl.edu

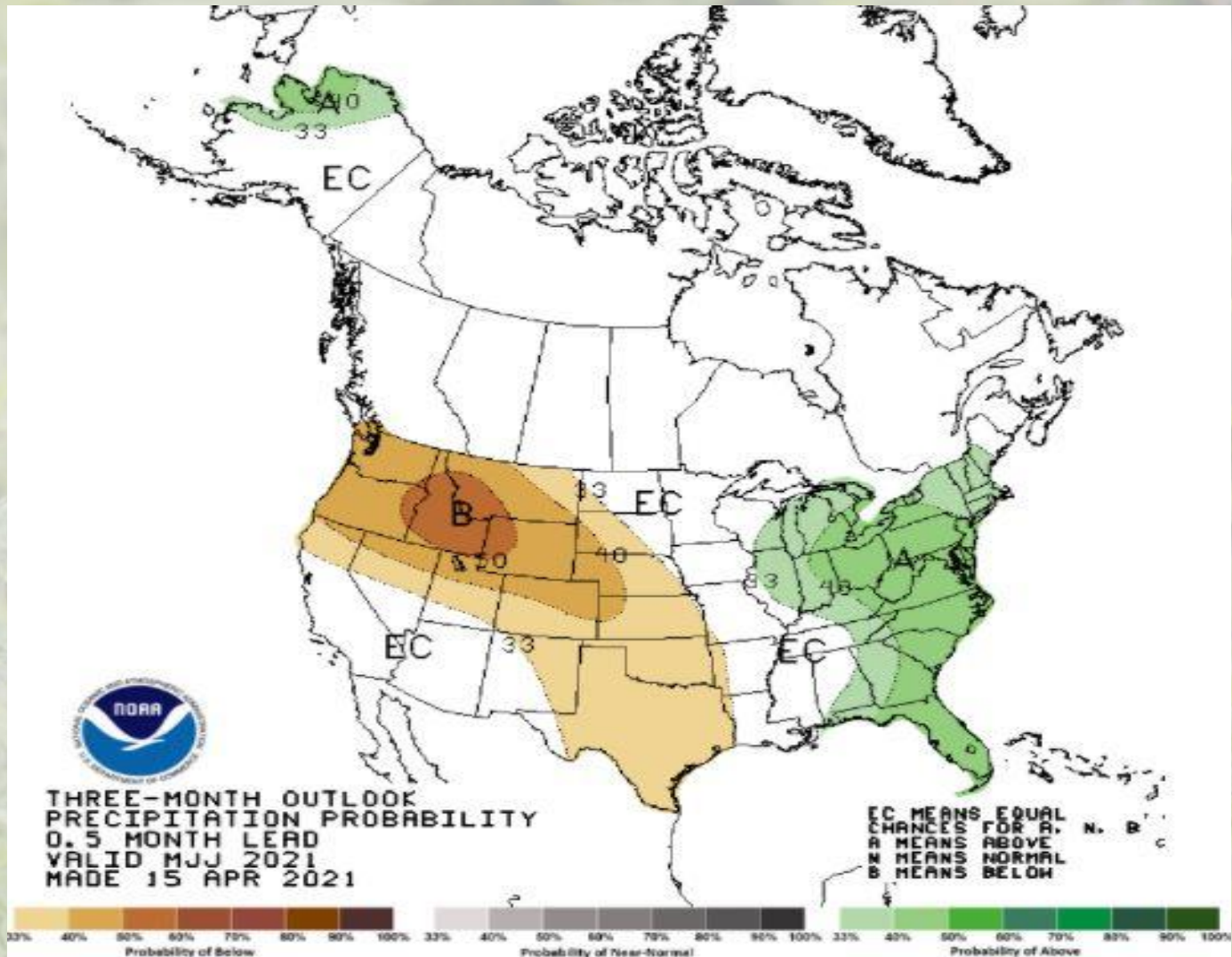
As of May 4th, now all of the forecast area was in some degree of a drought. The least drought category was in the northeast OR mountains, which has a drought intensity of “D0” (Abnormally Dry). The rest of the forecast area ranged from “D2” (Severe Drought) to “D4” (Exceptional Drought). The area of “D4” was quite small, and most of Cascades had a “D3” (Extreme Drought) intensity.

USA Three Month Temperature Outlook



The temperature outlook for the next 3 months (May - July) is for a greater chance of equal chances to above normal temperatures.

USA Three Month Precipitation Outlook

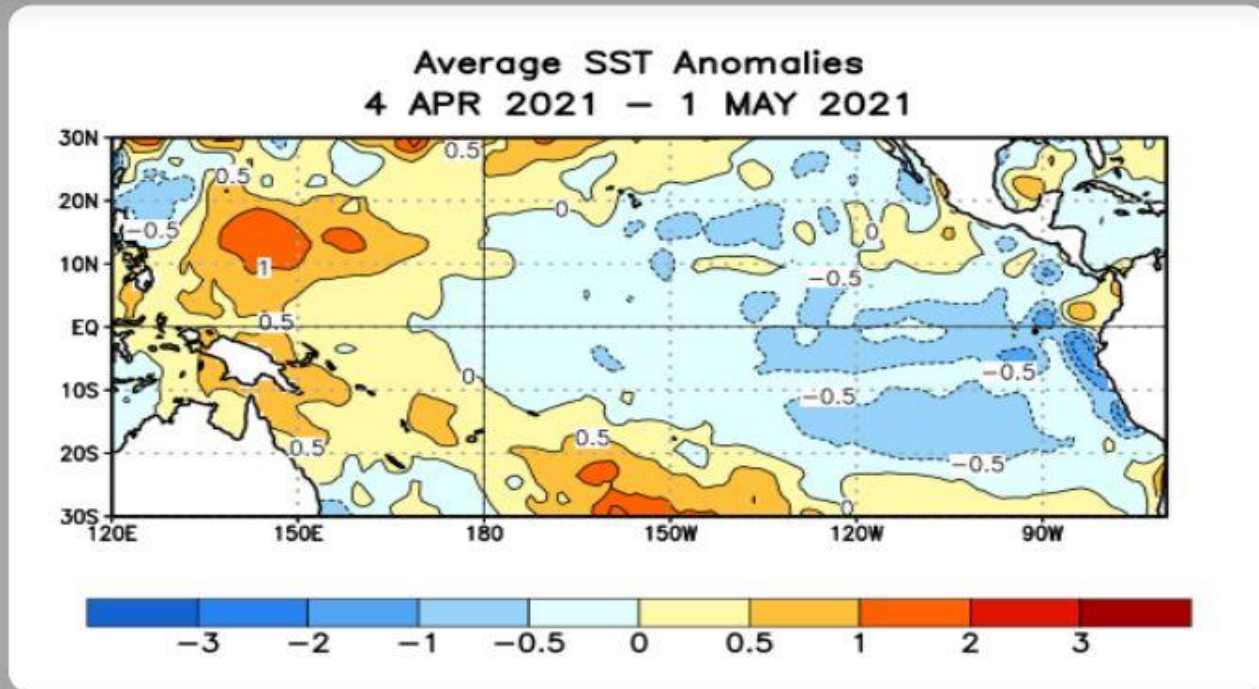


The forecast area is expected to have a greater chance of below normal precipitation for the next three months (May – July).

Average Sea Surface Temperature (SST) Anomalies for April 2021

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

In the last four weeks, equatorial SSTs were below average in the east-central and eastern Pacific Ocean.



SSTs were still below average again from early April through early May for most of the eastern tropical Pacific, especially near the south American coast. The coverage and magnitude of the below normal SST's is less than in recent previous months, which may indicate that the current La Nina is weakening and transitioning into an ENSO neutral status.

Current ENSO (El Niño Southern Oscillation) Alert System Status

Summary

ENSO Alert System Status: **La Niña Advisory**

La Niña is present.*

Equatorial sea surface temperatures (SSTs) are below average over the east-central to eastern Pacific Ocean.

The tropical atmospheric circulation is consistent with La Niña.

A transition from La Niña to ENSO-Neutral is likely in the next month or so, with an 80% chance of ENSO-neutral during May-July 2021.*

The current ENSO status is still: “**La Niña Advisory**”, which is still in effect. However, now there is an 80 percent chance that the ENSO status will transition from La Niña to an ENSO Neutral status during the period from May – July, 2021.



Thank You!