

A vibrant rainbow arches across a dark, stormy sky above a flat landscape. In the foreground, there are several industrial buildings and a runway. The scene is captured during a storm, with heavy clouds and a bright rainbow. The text "The Month In Review" is overlaid in yellow, serif font, centered in the upper half of the image. Below it, the text "April 2018" is also overlaid in yellow, serif font, centered. In the bottom right corner, the text "National Weather Service Pendleton, Oregon" is overlaid in yellow, sans-serif font.

The Month In Review

April 2018

National Weather Service
Pendleton, Oregon

April, 2018 Climate Summary

The climate over the forecast area, during April 2018, was close to normal with Temperatures and above normal with precipitation for most locations in the forecast area (CWA). The photos below show spring time conditions in the CWA. Most of the precipitation came in the form of Thunderstorms and convective rain showers. There was one thunderstorm that produced small size hail (about pea size) on April 16th. The month had several high precipitation events where a few records were broken for precipitation amounts. There was also a day when high Temperatures were broken, near the end of the month.



Spring Lilac Tree in Bloom



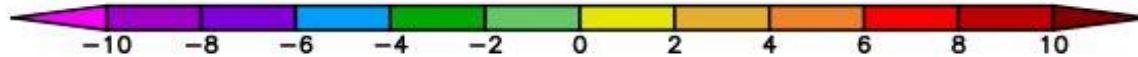
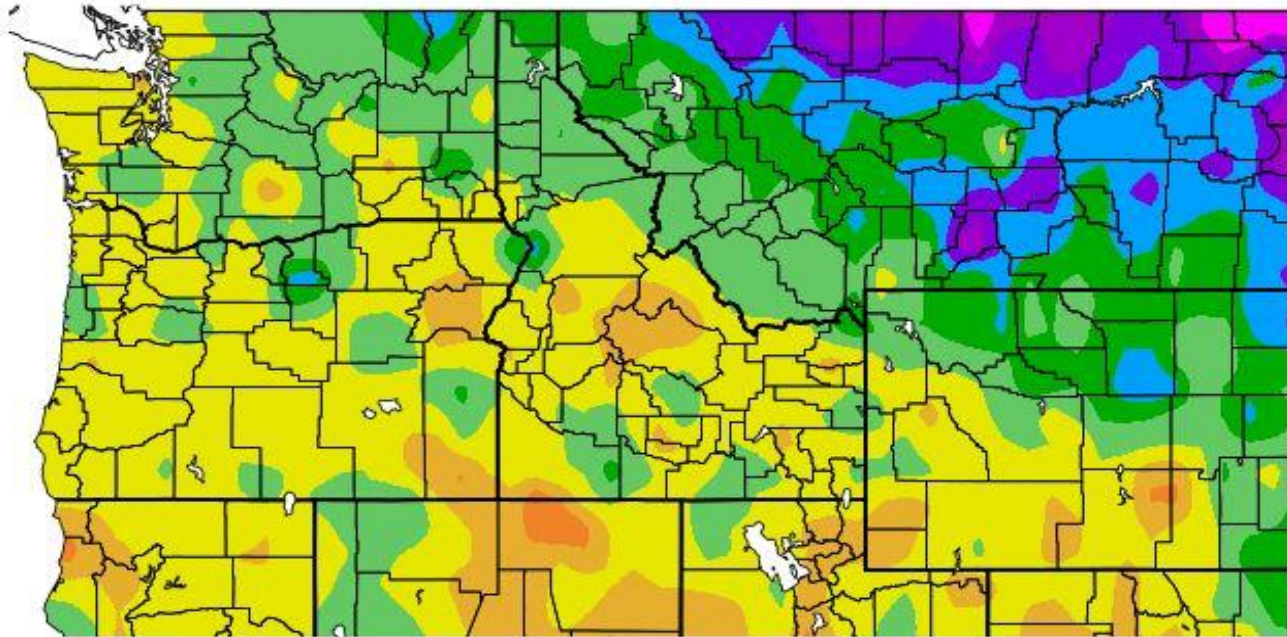
Fair Spring Skies Over Pendleton



Spring Day at the NWS Office

Departure from Normal Temperatures

Departure from Normal Temperature (F)
4/1/2018 - 4/30/2018



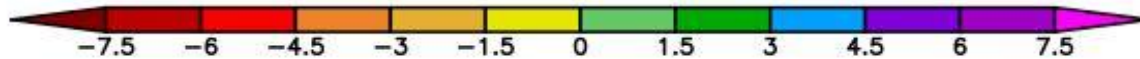
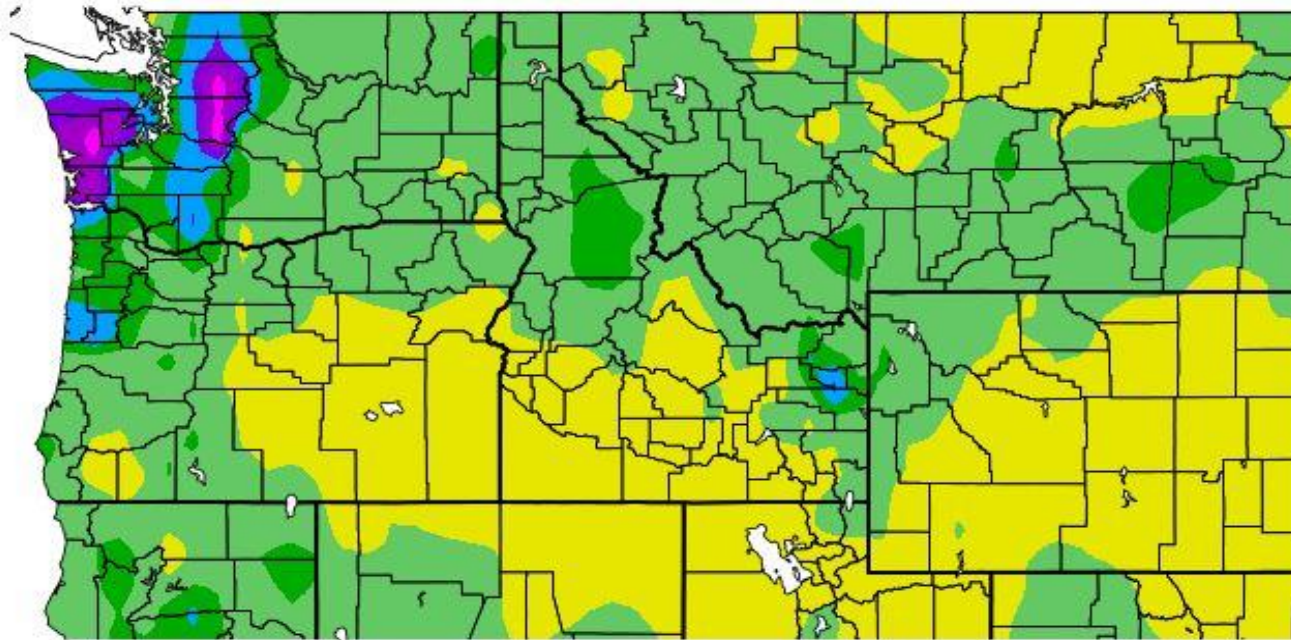
Generated 5/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

As the map shows, most of the Pacific Northwest and CWA had near to slightly below normal temperatures for the month.

Departure from Normal Precipitation

Departure from Normal Precipitation (in)
4/1/2018 – 4/30/2018



Generated 5/1/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

As the map shows, most of the Pacific Northwest and CWA had slightly above normal precipitation for the month, except southeast Oregon where precipitation was near to slightly below normal.

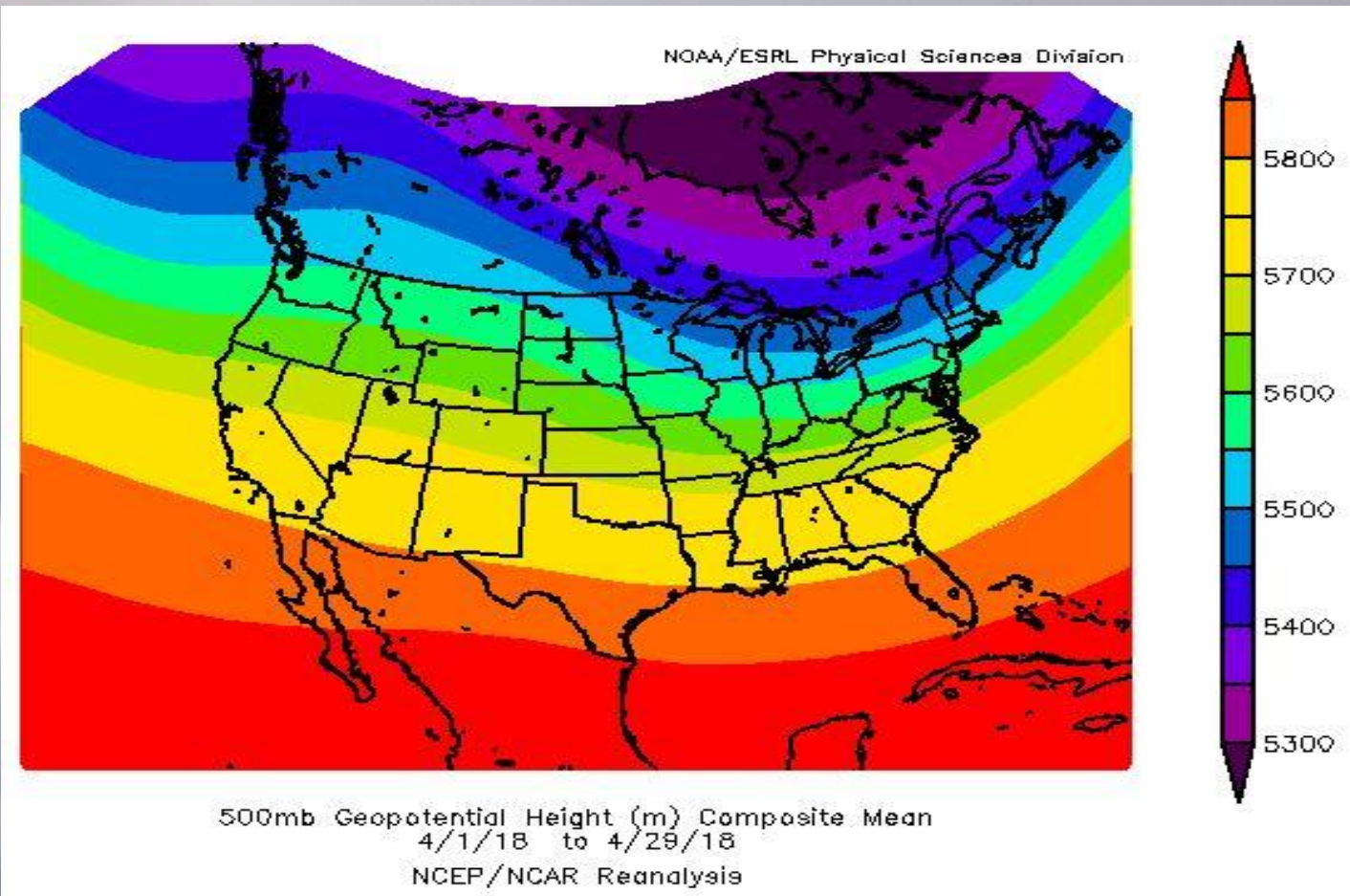
Select April, 2018 Averages and Departures of Temperatures and Precipitation

	Max T	Max T Dep	Min T	Min T Dep	Ave T	Ave T Dep	Precip	Precip Dep
Yakima	65.7	1.9	38.1	3.7	51.9	2.8	0.75"	0.20"
Kennewick	66.4	0.1	43.4	1.1	54.9	0.6	1.34"	0.78"
Walla Walla	63.1	0.6	42.8	0.9	53.0	0.8	2.37"	0.45"
The Dalles	65.8	0.7	42.9	1.3	54.4	0.6	0.55"	-0.19"
Redmond	61.4	1.8	30.6	1.5	46.0	1.6	0.69"	-0.04"
Pendleton Airport	62.9	0.8	39.5	0.3	51.2	0.5	1.71"	0.51"
La Grande	60.8	2.5	35.4	0.3	48.1	1.4	2.12"	1.14"

The data above shows that the average maximum, minimum and mean temperatures were very close to normal with all of the stations shown being just slightly above normal. Average precipitation was mostly above normal, except for The Dalles and Redmond, which were both a little below normal, but not by much.

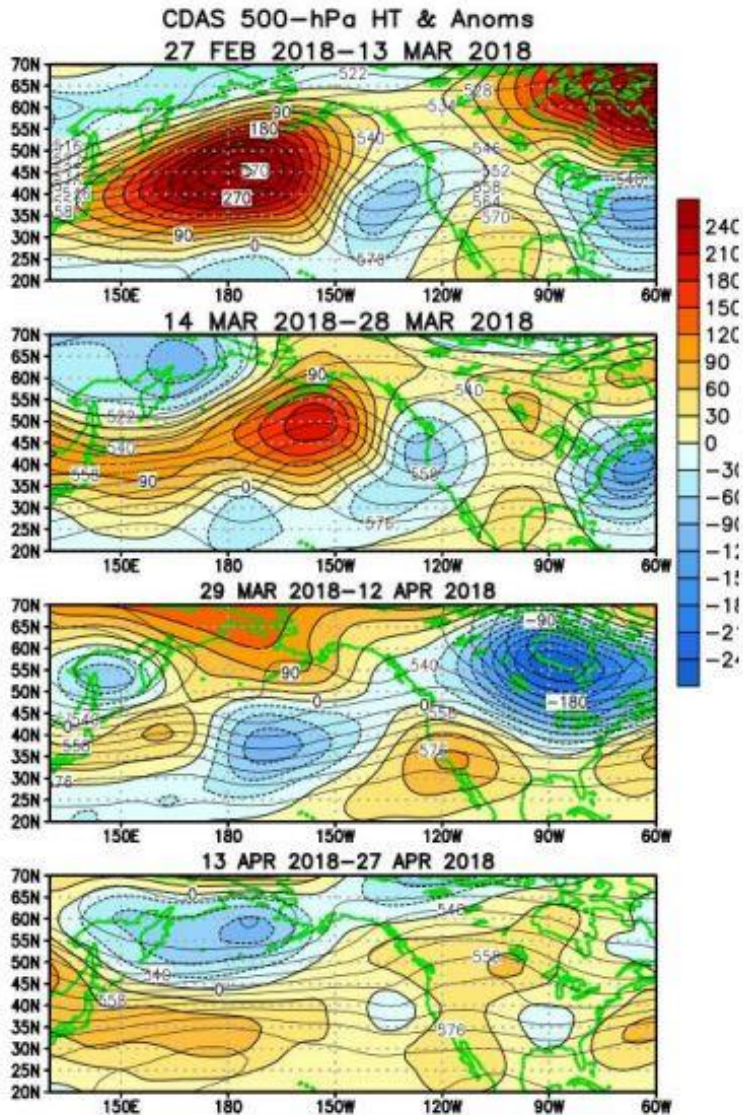


April 2018 Average 500 MB Weather Pattern



This image shows an overall 500 MB upper ridge axis just east of Oregon and Washington. With the ridge only being slightly amplified, it resulted in the near normal conditions of temperatures and precipitation. The southwest flow on the back side of the ridge resulted in a few more weather systems than normal likely resulting in greater than normal precipitation for most stations. Precipitation was mainly rain except for the mountains which received some snowfall events.

Detailed 500 MB Analysis for March & April, 2018



This graphic shows a comparison of detailed 15 day sets of mean 500 MB analysis and anomalies for the period late February through most of April, 2018. Land boundaries are in green.

The top image shows that the Pacific Northwest had mostly an upper trough from Feb 27 – March 13, 2018. This period was marked by rather frequent weather systems due to the trough. Then between March 14 – April 12th (the middle to images) shows an even stronger upper trough over the region...likely resulting in frequent weather systems again. After that a change took place with a mean upper ridge over the Pacific Northwest from April 13th – April 27th (bottom image). This image shows mostly a zonal to west-southwest flow. This ridge likely have kept conditions mostly dry during that period.

Significant Weather Events for April, 2018

During the month of April, 2018, there were both some snow events in the mountains and some High Wind/Wind Advisory events.

ZCZC PDXLSRPDT				
NWUS56 KPDT 021443				
PRELIMINARY LOCAL STORM REPORT				
NATIONAL WEATHER SERVICE PENDLETON OR				
742 AM PDT MON APR 02 2018				
..TIME...	..EVENT...	..CITY LOCATION...	..LAT.LON...	
..DATE...	..MAG....	..COUNTY LOCATION..ST..	..SOURCE....	
..REMARKS..				
0702 AM	SNOW	4 NW MEACHAM	45.55N 118.48W	
04/02/2018	M2.0 INCH	UMATILLA	OR	AMATEUR RADIO
2 INCHES OF NEW SNOW ACCUMULATION.				
0702 AM	SNOW	2 N JOSEPH	45.38N 117.23W	
04/02/2018	M1.0 INCH	WALLOWA	OR	AMATEUR RADIO
1 INCH OF NEW SNOW ACCUMULATION.				
..TIME...	..EVENT...	..CITY LOCATION...	..LAT.LON...	
..DATE...	..MAG....	..COUNTY LOCATION..ST..	..SOURCE....	
..REMARKS..				
0945 AM	HEAVY SNOW	TOLLGATE	45.78N 118.11W	
04/02/2018	M7.0 INCH	UMATILLA	OR	PUBLIC
TOLLGATE STORE REPORTED 7.0 INCHES SNOW IN LESS THAN 24 HRS...3 PM SUNDAY TO 930 AM MONDAY. CURRENTLY MODERATE SNOW AND ROADS ARE SNOWPACKED AND SLICK.				

This is a list of Local Storm Reports (LSRs) during a mountain heavy snow event on April 2nd, 2018. This mainly affected the Blue Mountains and Wallowa Mountains.



Photo by Oregon DOT (Trip Check) web camera near Tollgate, OR.

Significant Weather Events for April, 2018

This was a high wind event which took place on April 7, 2018

```
ZCZC PDXLSRPDT
NWUS56 KPDT 071652
PRELIMINARY LOCAL STORM
REPORT
NATIONAL WEATHER SERVICE PENDLETON
OR
952 AM PDT SAT APR 07
2018

..TIME...  ..EVENT...   ..CITY LOCATION...
..LAT.LON...
..DATE...   ..MAG....   ..COUNTY LOCATION..ST.. ..SOURCE....

..REMARKS..

0839 AM   NON-TSTM WND GST PENDLETON   45.67N
118.82W
04/07/2018 M61.00 MPH   UMATILLA   OR   ASOS

      SQUALL PRODUCED PEAK WIND GUST 61 MPH FROM
WEST.
```

Only one report of winds which met High Wind Warning criteria was observed, on the 7th of April. This was a downslope wind event of high winds along the Blue Mountains onto the Foothills of the Northern Blue Mountains. Since there was only one report, this event did not verify. In any event, there was still windy conditions along the base of the NW slopes of the Blue Mountains.



Significant Weather Events for April, 2018

This was a high wind event which took place on April 11, 2018

```
ZCZC PDXLSRPDT
NWUS56 KPDT 120631
PRELIMINARY LOCAL STORM
REPORT
NATIONAL WEATHER SERVICE PENDLETON
OR
1131 PM PDT WED APR 11 2018

..TIME... ..EVENT...   ..CITY LOCATION...
..LAT.LON...
..DATE...  ..MAG....   ..COUNTY LOCATION..ST.. ..SOURCE....

..REMARKS..

1037 PM   TSTM WND GST   7 ESE WALLA WALLA   46.03N
118.21W
04/11/2018 M64 MPH     WALLA WALLA     WA  MESONET

CWOP STATION AT 3454 FEET
```

Again, only one report of winds that met High Wind Warning criteria was observed, on the 11th of April. This was another downslope event of high winds on the northwest slopes of the Northern Blue Mountains onto the Foothills. Since there was only one report, this event did not very either. However, it is likely that both this event, and on the 7th met Wind Advisory Criteria in more than one location.



Significant Weather Events for April, 2018

This was a high wind event which took place on April 27th, 2018

ZCZC PDXLSRPDT
NWUS56 KPDT 280624
PRELIMINARY LOCAL STORM REPORT
NATIONAL WEATHER SERVICE PENDLETON OR
1122 PM PDT FRI APR 27 2018

..TIME... ..EVENT... ..CITY LOCATION... ..LAT.LON...
..DATE... ..MAG.... ..COUNTY LOCATION..ST.. ..SOURCE....
..REMARKS..

0245 PM NON-TSTM WND GST DALLESPORT 45.62N 121.18W
04/27/2018 M46.00 MPH KLUICKITAT WA ASOS

THE DALLE AIRPORT ASOS MEASURED A PEAK WIND GUST OF 46 MPH.

0535 PM NON-TSTM WND GST IRRIGON 45.90N 119.49W
04/27/2018 M45.00 MPH MORROW OR TRAINED SPOTTER

WIND GUST TO 45 MPH. BLOWING DUST REDUCED VISIBILITY TO LESS THAN 100 YARDS.

0559 PM NON-TSTM WND GST HERMISTON 45.83N 119.28W
04/27/2018 M48.00 MPH UMATILLA OR ASOS

HERMISTON AIRPORT ASOS MEASURED A PEAK WIND GUST OF 48 MPH.

0606 PM NON-TSTM WND GST PENDLETON 45.67N 118.82W
04/27/2018 M50.00 MPH UMATILLA OR ASOS

PENDLETON AIRPORT ASOS MEASURED A PEAK WIND GUST OF 50 MPH.

This was a more widespread event of high winds, which took place on April 27th. There are many reports of strong winds than on April 7th or the 11th. However, most of the reports showed Wind Advisory criteria and not High Wind Warning criteria being met. It covered an area from North Central Oregon into the Lower Columbia Basin, as well as the Washington Lower Columbia Basin.



Significant Weather Events for April, 2018

This is a continuation of LSR reports for the wind event of April 27th, 2018

0619 PM	NON-TSTM WND GST ELLENSBURG	47.00N 120.55W
04/27/2018	M59.00 MPH KITTITAS WA ASOS	
	ELLENSBURG AIRPORT ASOS MEASURED A PEAK WIND GUST OF 59 MPH.	
0648 PM	NON-TSTM WND GST WALLA WALLA	46.07N 118.34W
04/27/2018	M42.00 MPH WALLA WALLA WA ASOS	
	THE WALLA WALLA AIRPORT ASOS MEASURED A PEAK WIND GUST OF 42 MPH.	
0700 PM	NON-TSTM WND DMG 2 SE KENNEWICK	46.18N 119.13W
04/27/2018	BENTON WA TRAINED SPOTTER	
	POWER OUTAGES ALONG CANAL DRIVE IN KENNEWICK AND IN THE RESIDENTIAL SUBDIVISION ON GARFIELD HILL IN SE KENNEWICK. HIGH WINDS IN THE FINLEY AREA BLEW DOWN TREE BRANCHES 4 INCHES IN DIAMETER AND PRODUCED BLOWING DUST REDUCING VISIBILITY TO 1/10 MILE.	
0711 PM	NON-TSTM WND GST PASCO	46.25N 119.13W
04/27/2018	M53.00 MPH FRANKLIN WA ASOS	
	PASCO AIRPORT ASOS MEASURED A PEAK WIND GUSTS OF 53 MPH.	
0713 PM	HIGH SUST WINDS 5 NNE LA GRANDE	45.39N 118.07W
04/27/2018	E45.00 MPH UNION OR TRAINED SPOTTER	
	SUSTAINED WIND SPEED ESTIMATED ON THE BEAUFORT WIND SCALE AT 39-46 MPH. BLOWING DUST ON THE EAST SIDE OF THE GRANDE RONDE VALLEY BETWEEN HIGHWAY 82 AND THE FOOTHILLS OF THE WALLOWA MOUNTAINS.	

Again, most of these reports were shy of High Wind Event criteria, but they were close. There was some power outages and other damage reported from North Central Oregon to the Lower Columbia Basin of both Oregon and Washington, and the Foothills of the Northern Blue Mountains.



Significant Weather Events for April, 2018

This is a continuation of LSR reports for the wind event of April 27th, 2018

..TIME...	..EVENT...	..CITY LOCATION...	..LAT..LON...
..DATE...	..MAG....	..COUNTY LOCATION..ST..	..SOURCE....
..REMARKS..			
0245 PM	NON-TSTM WND GST	DALLESPORT	45.62N 121.18W
04/27/2018	M46.00 MPH	KLICKITAT WA	ASOS
THE DALLES AIRPORT ASOS MEASURED A PEAK WIND GUST OF 46 MPH.			
0535 PM	NON-TSTM WND GST	IRRIGON	45.90N 119.49W
04/27/2018	M45.00 MPH	MORROW OR	TRAINED SPOTTER
WIND GUST TO 45 MPH. BLOWING DUST REDUCED VISIBILITY TO LESS THAN 100 YARDS.			
0559 PM	NON-TSTM WND GST	HERMISTON	45.83N 119.28W
04/27/2018	M48.00 MPH	UMATILLA OR	ASOS
HERMISTON AIRPORT ASOS MEASURED A PEAK WIND GUST OF 48 MPH.			
0606 PM	NON-TSTM WND GST	PENDLETON	45.67N 118.82W
04/27/2018	M50.00 MPH	UMATILLA OR	ASOS
PENDLETON AIRPORT ASOS MEASURED A PEAK WIND GUST OF 50 MPH.			
0619 PM	NON-TSTM WND GST	ELLENSBURG	47.00N 120.55W
04/27/2018	M59.00 MPH	KITTTAS WA	ASOS
ELLENSBURG AIRPORT ASOS MEASURED A PEAK WIND GUST OF 59 MPH.			

Again, most of these reports were shy of High Wind Event criteria, but they were close. There was some power outages and other damage reported from North Central Oregon to the Lower Columbia Basin of both Oregon and Washington, as well as the Foothills of the Northern Blue Mountains and the Simcoe Highlands.



Significant Weather Events for April, 2018

This is a continuation of LSR reports for the wind event of April 27th, 2018

0648 PM NON-TSTM WND GST WALLA WALLA 46.07N 118.34W
04/27/2018 M42.00 MPH WALLA WALLA WA ASOS

THE WALLA WALLA AIRPORT ASOS MEASURED A PEAK WIND GUST OF 42 MPH.

0700 PM NON-TSTM WND GST 3 NW KENNEWICK 46.23N 119.21W
04/27/2018 M53.00 MPH BENTON WA MESONET

MESONET ANEMOMETER MEASURED A PEAK WIND GUST OF 53 MPH.

0700 PM NON-TSTM WND DMG 2 SE KENNEWICK 46.18N 119.13W
04/27/2018 BENTON WA TRAINED SPOTTER

POWER OUTAGES ALONG CANAL DRIVE IN KENNEWICK AND IN THE RESIDENTIAL SUBDIVISION ON GARFIELD HILL IN SE KENNEWICK. HIGH WINDS IN THE FINLEY AREA BLEW DOWN TREE BRANCHES 4 INCHES IN DIAMETER AND PRODUCED BLOWING DUST REDUCING VISIBILITY TO 1/10 MILE.

0711 PM NON-TSTM WND GST PASCO 46.25N 119.13W
04/27/2018 M53.00 MPH FRANKLIN WA ASOS

PASCO AIRPORT ASOS MEASURED A PEAK WIND GUSTS OF 53 MPH.

0713 PM HIGH SUST WINDS 5 NNE LA GRANDE 45.39N 118.07W
04/27/2018 E45.00 MPH UNION OR TRAINED SPOTTER

SUSTAINED WIND SPEED ESTIMATED ON THE BEAUFORT WIND SCALE AT 39-46 MPH. BLOWING DUST ON THE EAST SIDE OF THE GRANDE RONDE VALLEY BETWEEN HIGHWAY 82 AND THE FOOTHILLS OF THE WALLOWA MOUNTAINS.

0715 PM DUST STORM COVE 45.30N 117.81W
04/27/2018 UNION OR PUBLIC

REPORT OF A DUST STORM IN THE GRANDE RONDE VALLEY POSTED ON THE NWS PENDLETON FACEBOOK PAGE. DUST STORM REDUCED VISIBILITY IN COVE TO 500 YARDS OR LESS.

Again, most of these reports were shy of High Wind Event criteria, but they were close. There was some power outages and other damage reported from North Central Oregon to the Lower Columbia Basin of both Oregon and Washington, and the Foothills of the Northern Blue Mountains and the Grande Ronde Valley, which had a dust storm.



Some Records for April, 2018

These are some record event reports that occurred during the month of April, 2018. These are the RER reports from April. Note that all of the reports on the 28th were “tied” events.

		Old (in)	New (in)	Records Began (year)
April 8 th	<u>Record Rainfall</u>			
	Meacham, OR	0.35/2013	0.82	1929
	Pelton Dam, OR	0.20/1995	0.24	Not Available
	Walla Walla, WA	0.32/1984	0.50	Not Available
April 12 th	<u>Record Rainfall</u>			
	Pendleton Airport	0.38/1944	0.41	1934
	Yakima, WA	0.12/1982	0.16	1909
April 28 th	<u>Record High Temp</u>			
	La Grande, OR	80/2004	80 (Tied)	1887
	Meacham, OR	79/2018	79 (Tied)	1929
	Whitman Mission, WA	82/2018	82 (Tied)	1962
	Yakima, WA	87/2018	87 (Tied)	1909

April, 2018 Observed Monthly Max & Min Temperatures

Location	Highest Maximum Temperature	Lowest Minimum Temperature
Pendleton, OR	80	29
Redmond, OR	85	16
Pasco, WA	88	28
Yakima, WA	87	25
Walla Walla, WA	81	32
Bend, OR	80	23
Ellensburg, WA	84	26
Hermiston, OR	83	30
John Day, OR	83	20
La Grande, OR	84	22
The Dalles, OR	86	30
MT Adams RS, WA	77	24

April 2018, Monthly Total Precipitation and Snowfall Totals

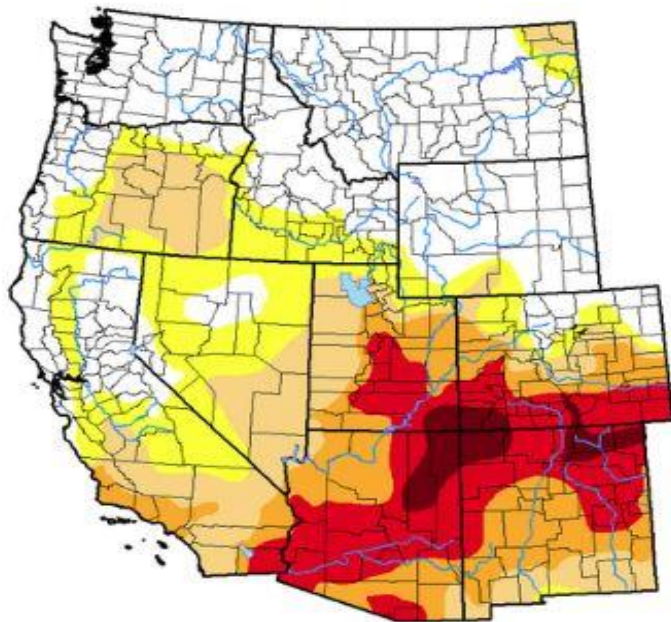
Location	Total Monthly Precip	Total Snowfall
Pendleton, OR	1.71	T
Redmond, OR	0.69	T
Pasco, WA	1.35	0
Yakima, WA	0.75	0
Walla Walla, WA	2.37	0
Bend, OR	0.64	T
Ellensburg, WA	1.03	M
Hermiston, OR	1.68	0
John Day, OR	0.95	M
La Grande, OR	2.72	0
The Dalles, OR	0.55	M
Mt Adams RS, WA	4.53	T

End of April - Current Drought Monitor

U.S. Drought Monitor - Western RCC

As of May 1, 2018

Author: David Simeral, Western Regional Climate Center



Drought Conditions (Percent Area)

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 5/01/2018	39.20%	60.80%	43.89%	28.30%	15.50%	2.72%
Last Week 4/24/2018	38.60%	61.40%	43.93%	28.11%	14.37%	2.47%
Three Months Ago 1/30/2018	26.92%	73.08%	44.29%	21.57%	0.88%	0.00%
Start of Calendar Year 1/02/2018	48.76%	51.24%	29.03%	8.60%	1.52%	0.00%
One Year Ago 5/02/2017	87.17%	12.83%	2.72%	0.16%	0.00%	0.00%

Drought Intensities

None: No Drought
D0: Abnormally Dry

D1: Moderate Drought
D2: Severe Drought

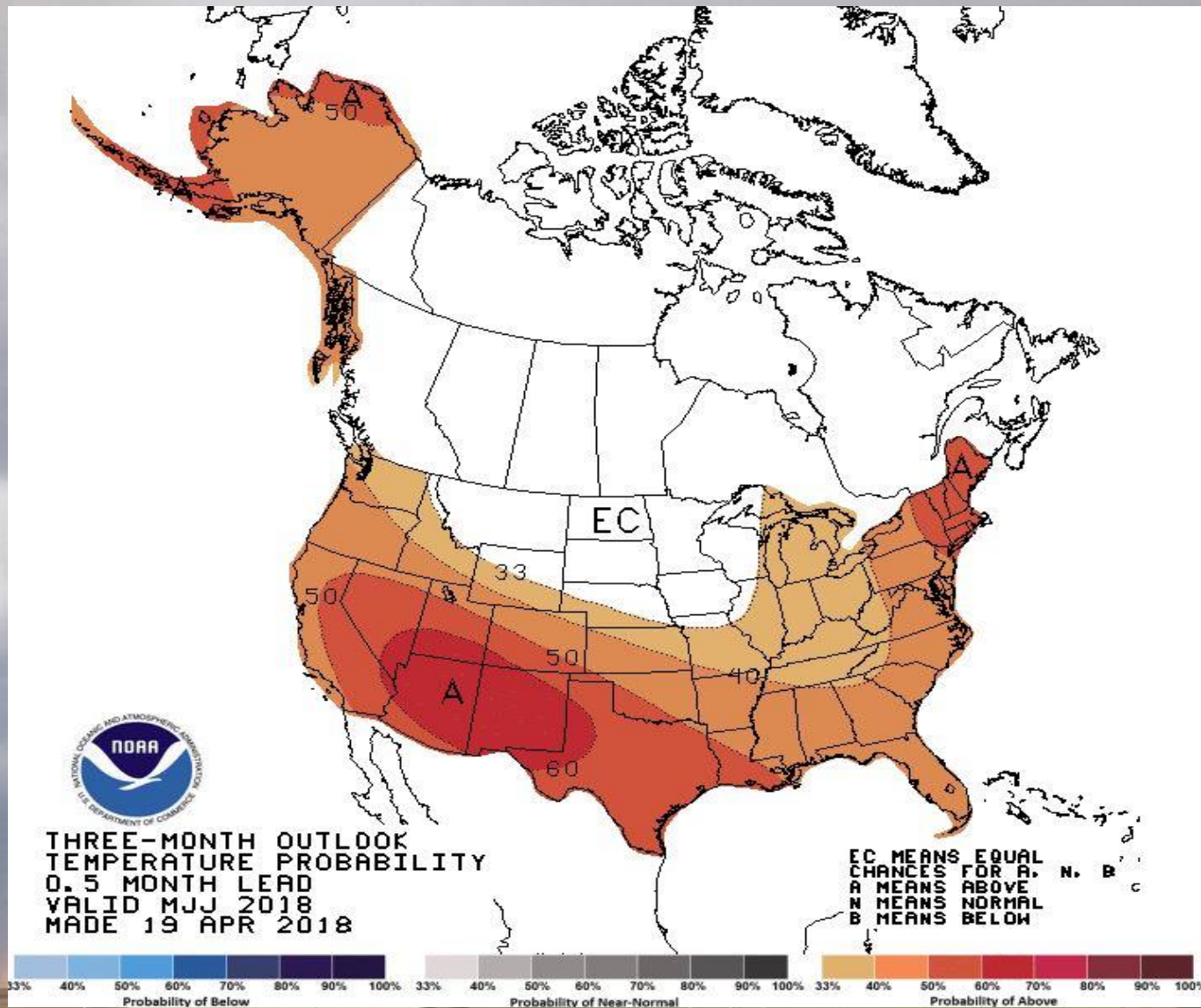
D3: Extreme Drought
D4: Exceptional Drought



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

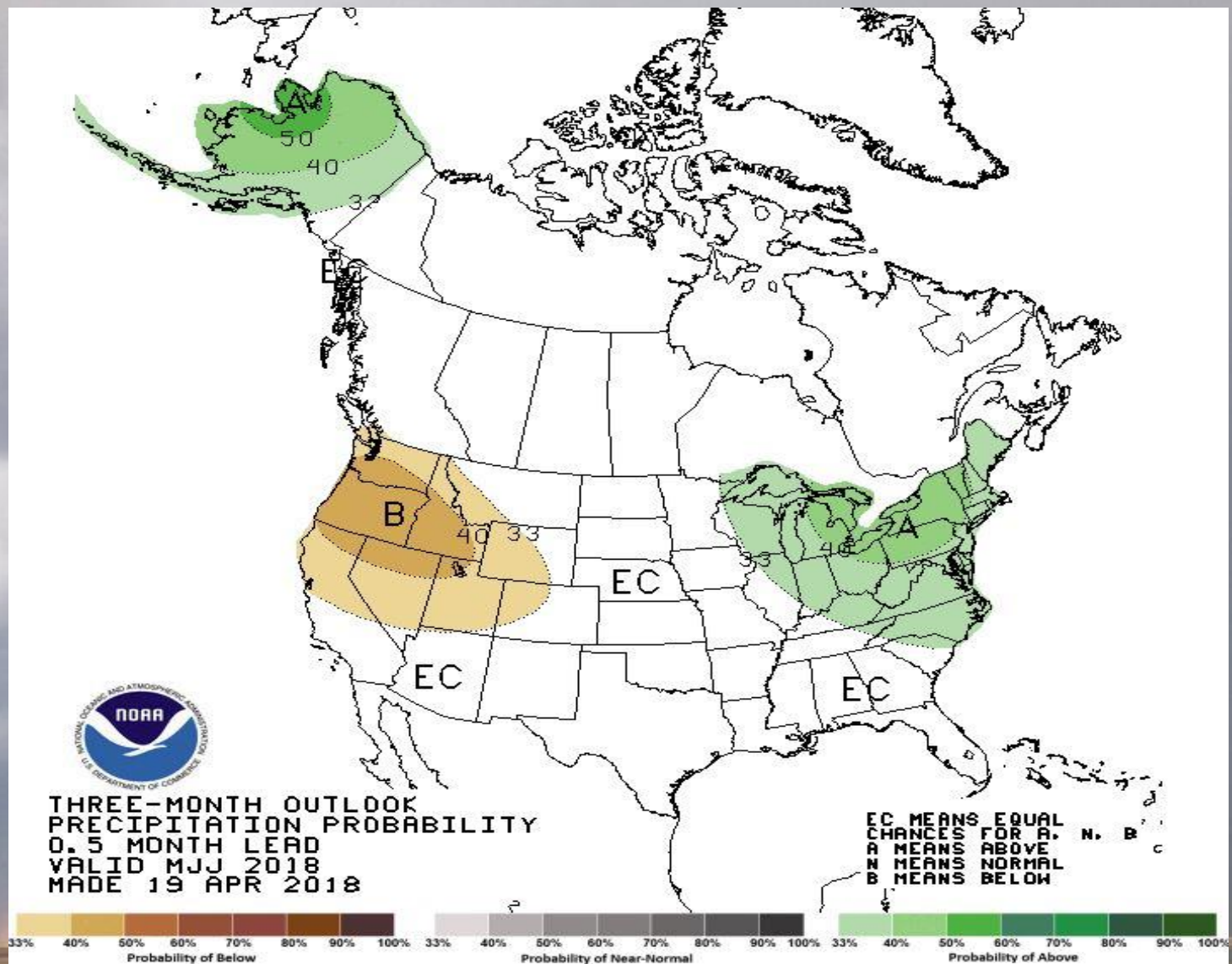
At the end of the month of April, the map shows that the Oregon has a slight to moderate drought, while Washington was neutral.

USA Three Month Temperature Outlook (May, June & July)



The temperature outlook for the next three months (May, June & July) shows above normal temperatures for the Pacific Northwest and CWA.

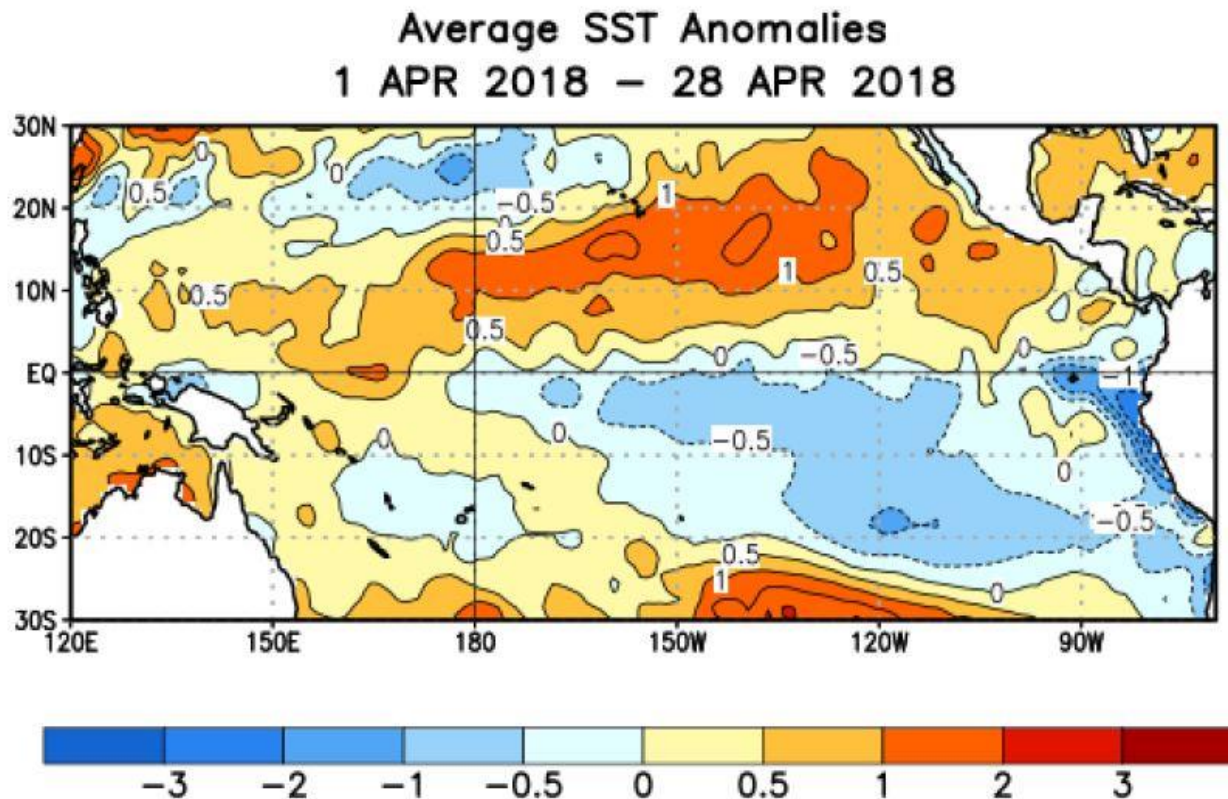
USA Three Month Precipitation Outlook (May, June & July)



The precipitation outlook for the next three months (May, June & July) shows below normal precipitation over the Pacific Northwest & CWA.

SST Departures (°C) in the Tropical Pacific During the Last Four Weeks

During the last four weeks, equatorial SSTs were below average across the east-central and eastern Pacific Ocean, and above average in the western Pacific.





Thank You!