Oregon
Water Conditions Report
May 6, 2019

OREGON
WATER RESOURCES
DEPARTMENT

Snow water equivalent (SWE) values measured at NRCS SNOTEL sites across the state continue to drop rapidly. The current statewide SWE value is 81 percent of normal. The John Day basin currently has the highest percent of normal snowpack measuring 167 percent. The Hood, Sandy, and Lower Deschutes basin is measuring the least amount of snowpack at 55 percent of normal.

Oregon statewide water year precipitation at NRCS SNOTEL sites is currently 96 percent of normal. The highest values for water year precipitation have been in the Umatilla, Walla Walla, and Willow Creek basin with 116 percent of normal, while the lowest value is in the Hood, Sandy, and Lower Deschutes basin at 83 percent of normal for the water year.

The NRCS Basin Outlook Report for April is now available. The report is published monthly from January through June. The May report is not expected for a few more days as data is being compiled.

The NRCS Snow Survey also continues to publish weekly condition reports on three areas affected by wildfire in eastern Oregon. After exposure to high heat, soils in these burned areas can't absorb as much water. As a result, these watersheds can experience a higher risk for flash flooding. The reports can be accessed at:
https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/snow/?cid=nrcseprd854607

Temperatures over the past two weeks have been warmer than normal across most of the state. The exceptions were the Cascades and small areas in eastern Oregon where temperatures were normal to slightly below normal. For the month of April, temperatures were well above normal for most of the state.

Precipitation over the past two weeks has been drier than normal. This was especially evident in western Oregon where precipitation was up to three inches lower than normal. For the month of April, precipitation was well above normal for most of the state with the exception of the North Coast, where precipitation was below normal.

Over the next 8 to 14 days, the NOAA Climate Prediction Center is forecasting above-normal temperatures along with above-normal precipitation probability across the state. The most recent three month outlook indicates increased chances of above-normal temperatures. The precipitation outlook for the same period is for drier than normal probabilities in the northwest corner of the state with equal chances of above or below normal precipitation for the southwest and central regions of state. For eastern Oregon the outlook is for above-normal precipitation. The next long-term outlook will be issued on May 16, 2019.

Weak El Niño conditions are present and are likely to continue through the summer of 2019. El Niño conditions strengthened during February as above-average sea surface

temperatures increased across the equatorial Pacific Ocean. For a more complete report, refer to the April 11, 2019 diagnostic discussion issued by the Climate Prediction Center. The next diagnostics discussion is scheduled for May 9, 2019. Another source of information is the latest ENSO blog on the climate.gov website.

Statewide streamflows for April were over 200 percent of normal. It goes without saying that this is a significant increase from the 83 percent seen in March. Regionally for April, streamflow conditions were about 215 percent of normal east of the Cascades and 190 percent to the west. Flows in the North Coast were the lowest at about 98 percent of normal while the highest flows were in the Umatilla at 375 percent of normal for the month. More recent data indicate that flows are now declining, especially in basins west of the Cascades.

USACE Reservoirs: Rogue: Currently the system is at 97 percent full and 3 percent below rule curve. The Lost Creek project is 97 percent full and 3 percent below rule curve with outflow at 2,700 cfs and inflow at about 2,900cfs. Applegate is at 97 percent, 3 percent below rule curve. Applegate outflows are 760 cfs with inflows at 750 cfs. Current fisheries objectives in the project area include minimizing dewatering of spring chinook redds, enhancement of rearing conditions for juvenile fall Chinook salmon, as well as minimizing early emergence by spring Chinook fry in spring 2019.

Willow Creek: The project is full and just above rule curve. Project outflows are currently about 72 cfs; inflows are 73 cfs.

Willamette: The project is currently at 93 percent of capacity and 4 percent below rule curve. The flows in the Willamette River at Albany are about 8,060 cfs and flows at Salem are about 13,800 cfs. The larger storage projects that provide summer flow augmentation are now close to rule curve while still providing minimum outflow.

USBR Reservoirs: Umatilla River Basin: McKay reservoir is full. Reclamation's runoff forecast shows the runoff season inflow volume could come in at 137 percent of average due to high snowpack values in and around the basin. Average inflows this past April were 1,090 cfs.

Deschutes River Basin: Ochoco and Prineville reservoirs are at 86 percent and 100 percent full respectively. Reclamation's forecast shows the runoff season inflow volume could come in at 145 percent of average due to high snowpack values in and around the basin. Despite the good forecast there is still a chance that Ochoco reservoir could miss refill. This is mainly due to really low carry-over storage at the beginning of this water year. Ochoco reservoir is still releasing minimum flows close to 10 cfs while Prineville reservoir is currently releasing inflows. Average inflows this past April were 366 cfs for Ochoco and 2,190 cfs for Prineville.

Malheur River Basin: Warm Springs, Beulah, and Bully Creek reservoirs are at 87 percent, 93 percent, and 99 percent full respectively. Reclamation's forecast shows the runoff season inflow volume could come in at around 155 percent of average due to high snowpack values in and around the basin. Average inflows this past April were 1,470 cfs for Warm Springs, and 735 cfs for Beulah.

Owyhee River Basin: Owyhee reservoir is currently 92 percent full. Reclamation's forecast shows the runoff season inflow volume could come in at around 134 percent of average

due to high snowpack values in and around the basin. Owyhee reservoir is currently releasing over 200 cfs with average inflows this past April coming in at 3,960 cfs.

Burnt and Powder River Basins: Philips and Unity reservoirs are at 52 percent and 98 percent full. Reclamation's forecast shows the runoff season inflow volume could come in at around 140 percent of average due to high snowpack values in and around the basin. Philips is releasing 177 cfs with April average inflows of 230 cfs while Unity is releasing 216 cfs. Unity is currently undergoing space and refill management measures due to elevated inflows and shrinking storage space.

Tualatin River Basin: Scoggins reservoir is full and releasing 45 cfs.

The most recent update to the US Drought Monitor showed very little change over the past two weeks. D1 (Moderate Drought), D2 (Severe Drought) and D3 (Extreme Drought) are no longer present anywhere in the state. The report now indicates that 17 percent of the state is listed as in D0 (Abnormally Dry).

Wildfire potential for May is predicted to be above normal across the northwest corner of the state. According to the National Significant Wildland Fire Potential Outlook, The wet weather in April moderated fire danger indices west of the Cascades that had been climbing due to the dry weather observed in March.

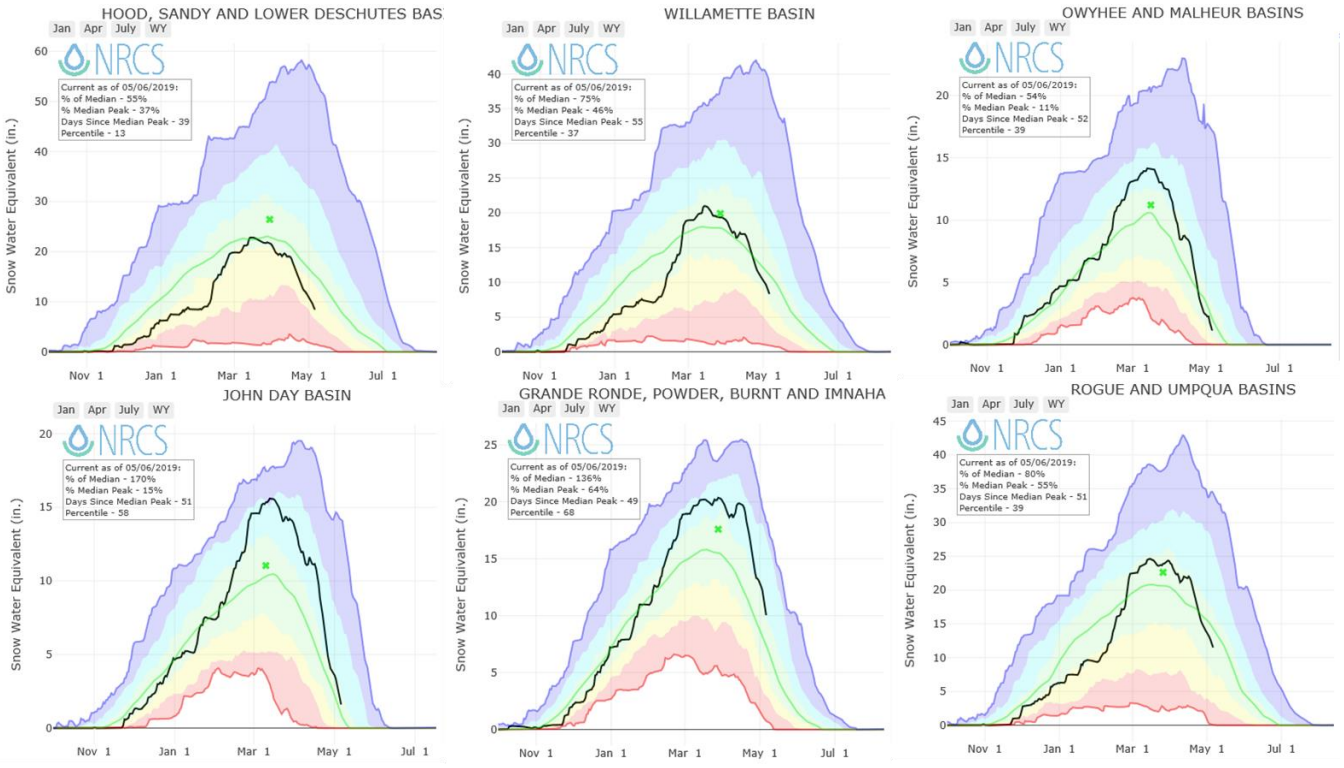
Long-range outlooks suggest fire danger will rise to be above-average during the summer, particularly west of the Cascades where outlooks suggest a warmer than average summer. Fire season will likely begin sooner than average in June for areas west of the Cascades and then spread southward in July and August.

Large fire risk is expected to become higher than average and spread to Oregon and central Washington as the summer progresses. The next update is scheduled for June 1, 2019.

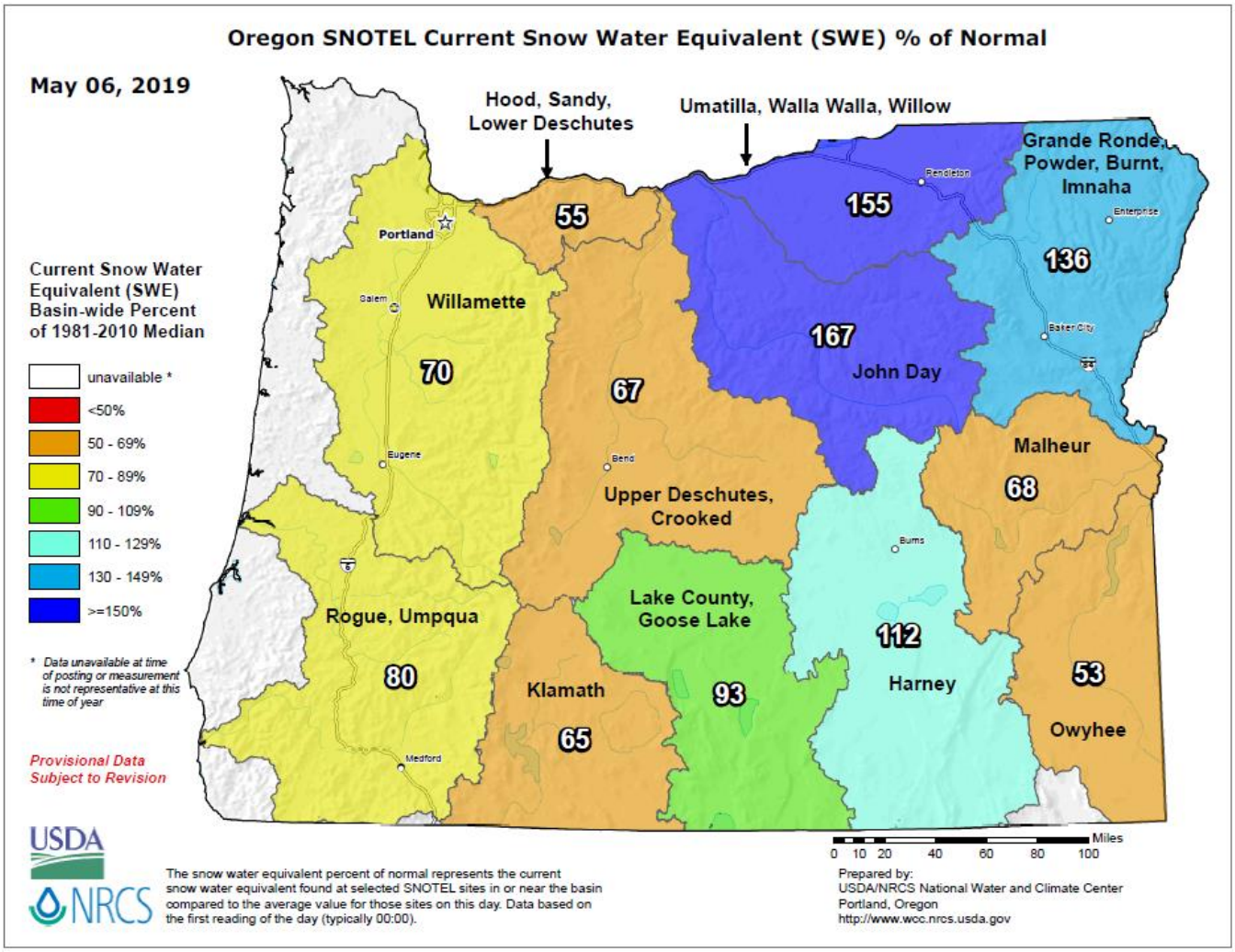
More information can also be accessed through the Northwest Interagency Coordination Center website. Another recommended resource is the Oregon Office of Emergency Management's RAPTOR incident mapping program which includes current situational information, such as wildfire perimeters, thermal satellite, fire evacuation boundaries, and air quality info.

Data & Products: Page:

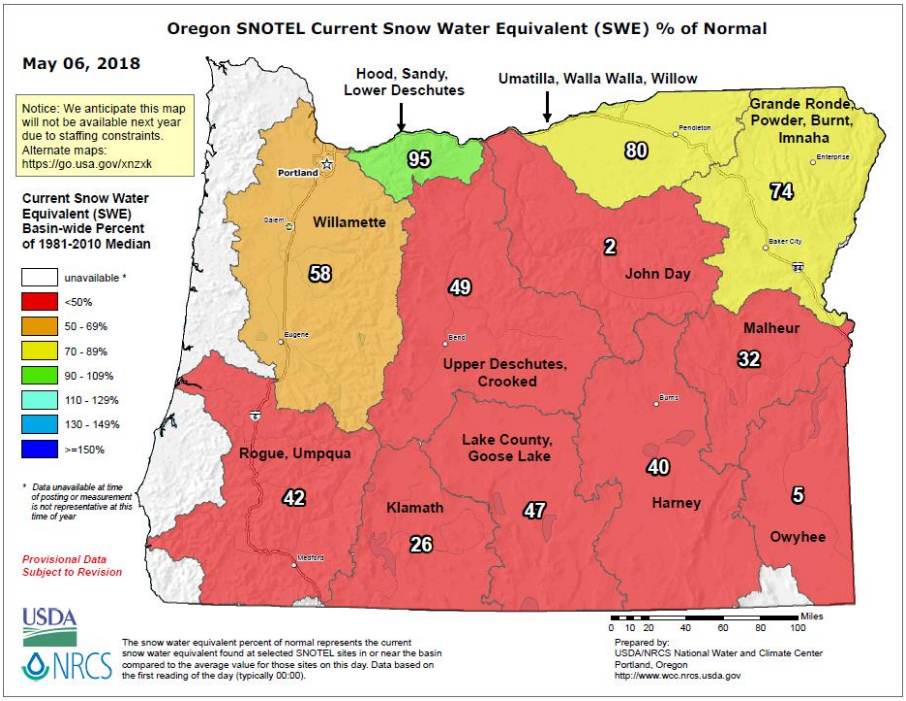
Snowpack Graphs – May, 2019



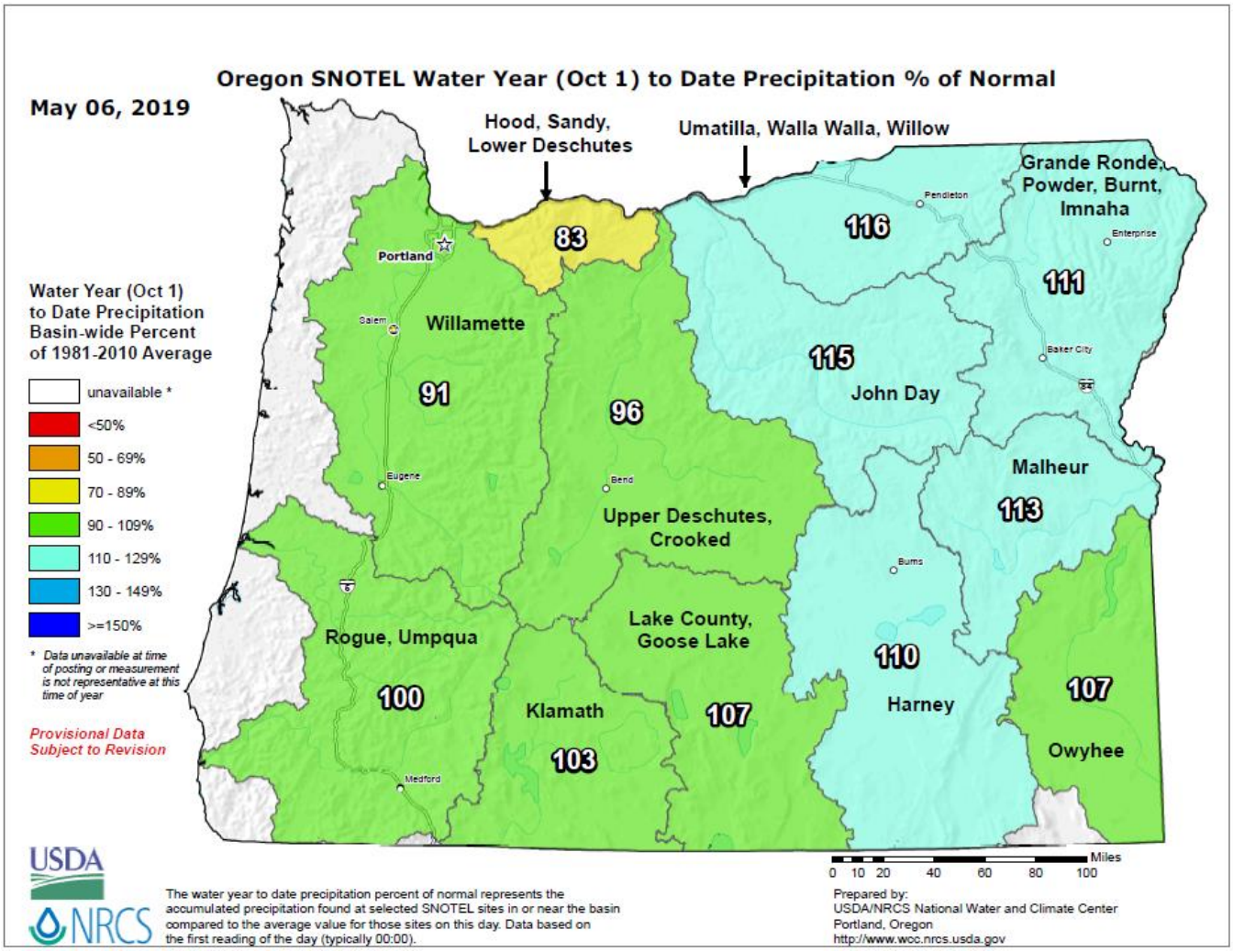
Snow Water Equivalent - Percent of Normal



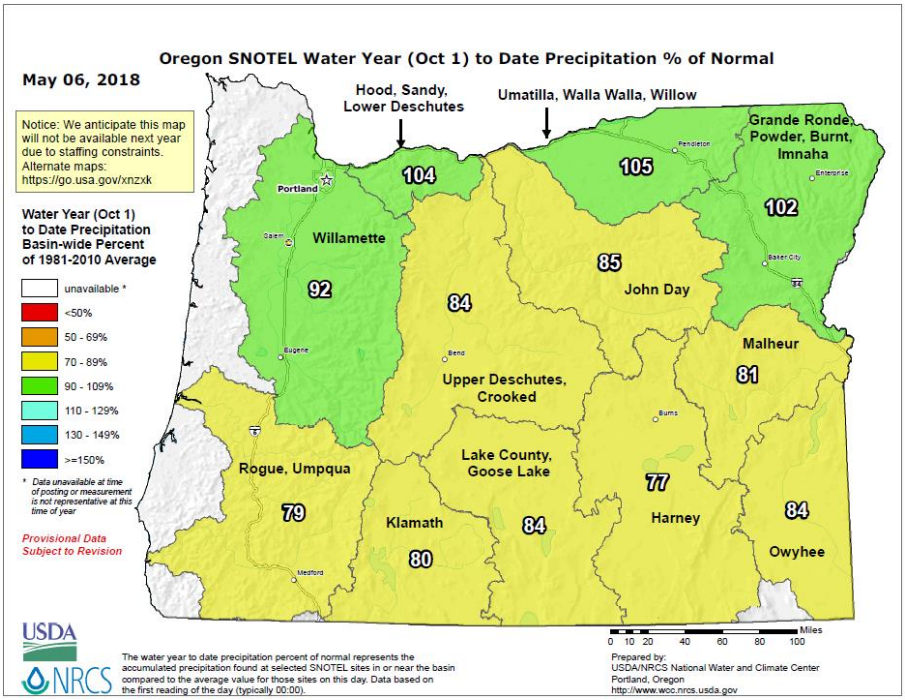
Compared to this time last year -



Precipitation (Mountain) - Percent of Normal



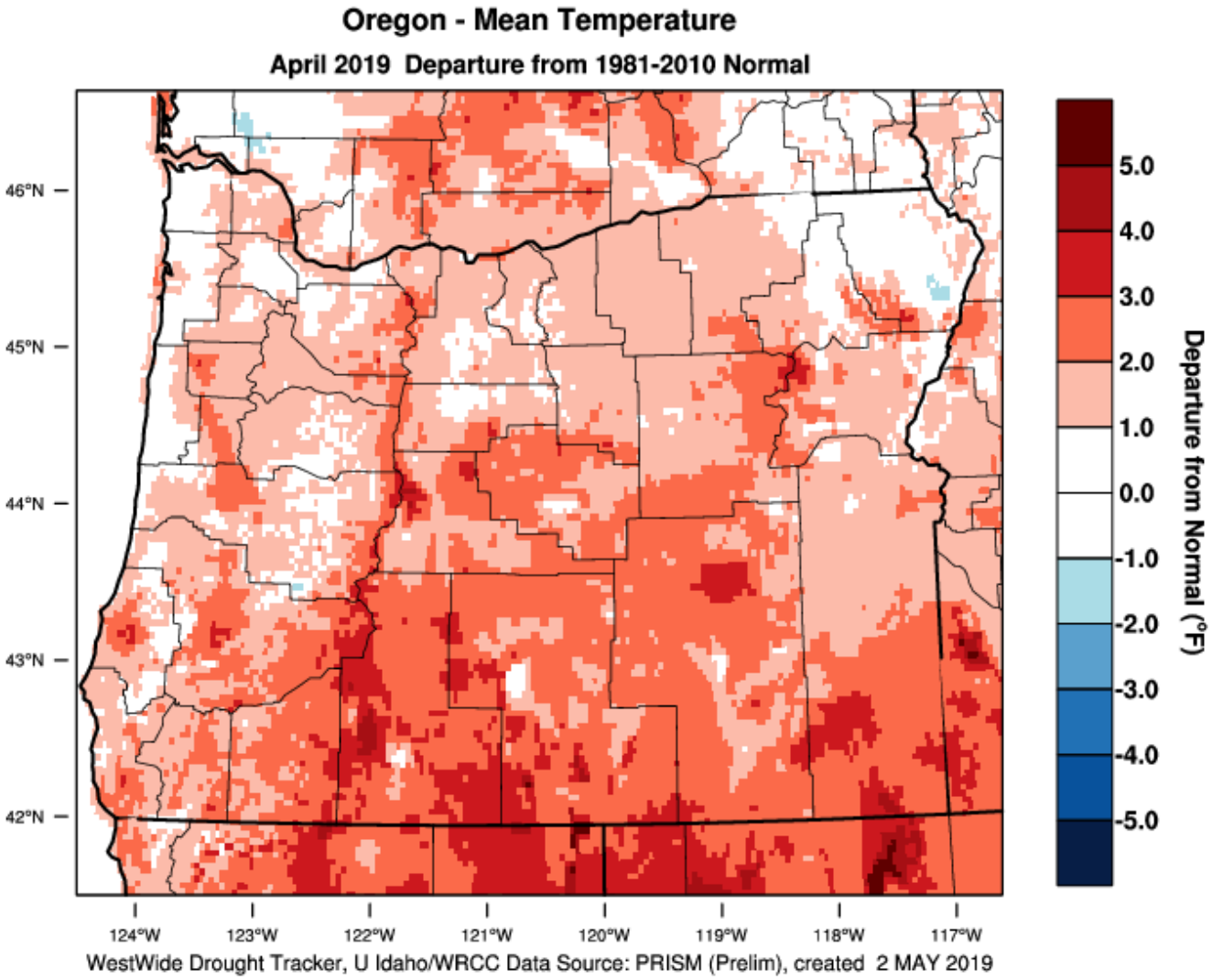
Compared to this time last year –



Temperature – (1 Month) Departure from Normal

Website: https://wrcc.dri.edu/wwdt/index.php?region=or

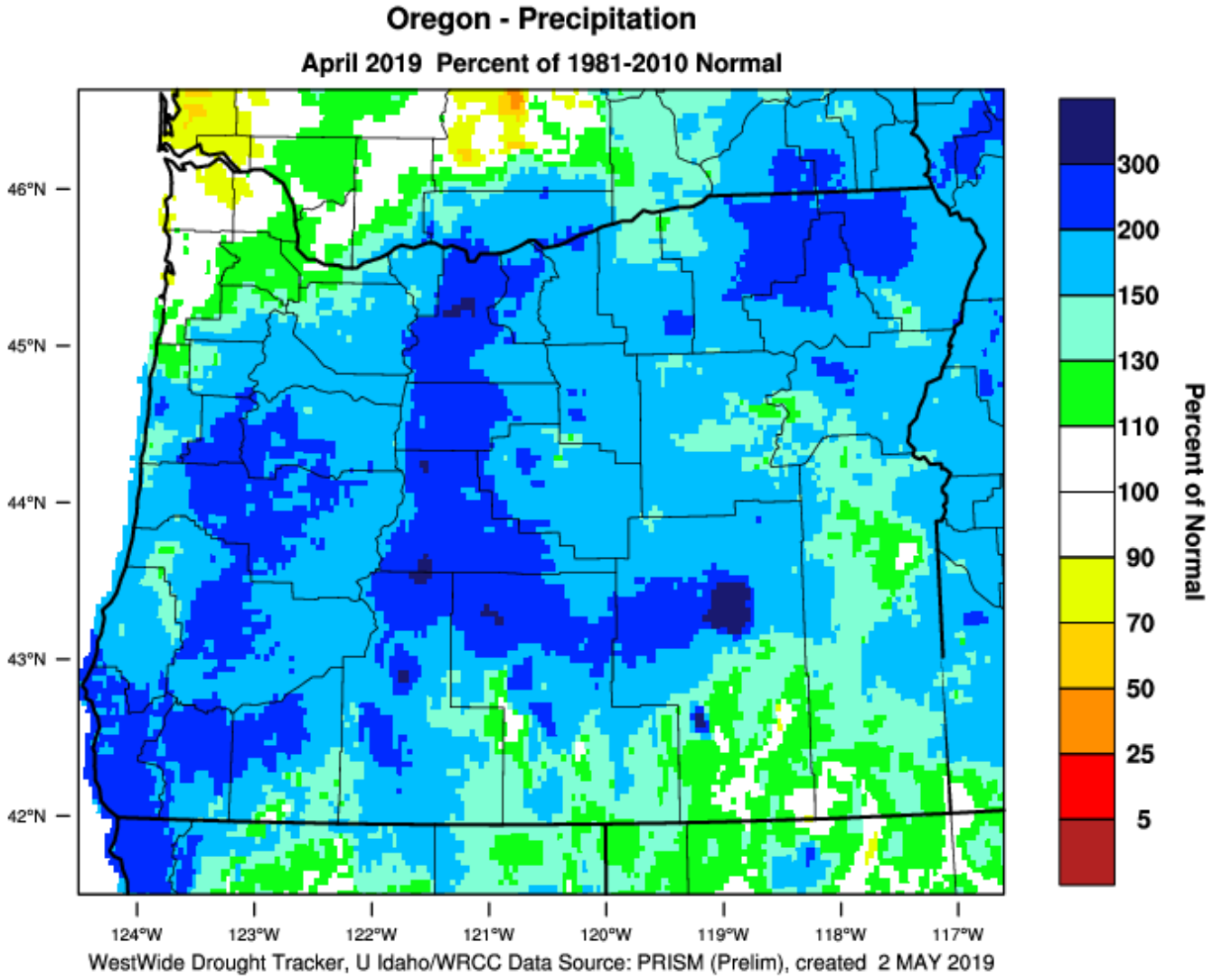
PRISM > Temperature Anomaly 1 Month > Oregon



Precipitation – (1 Month) Percent of Normal

Website https://wrcc.dri.edu/wwdt/index.php?folder=pon1

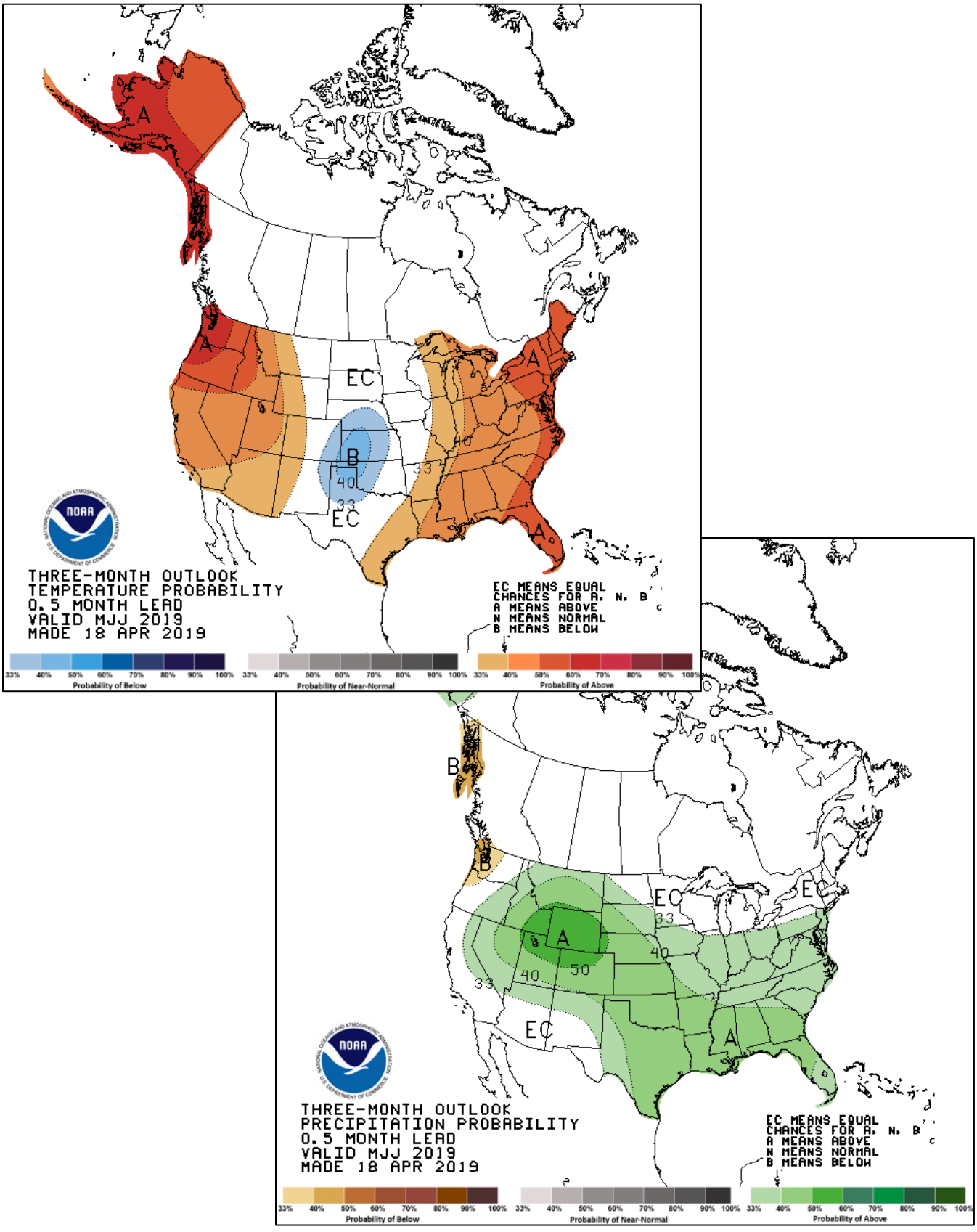
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

May through July

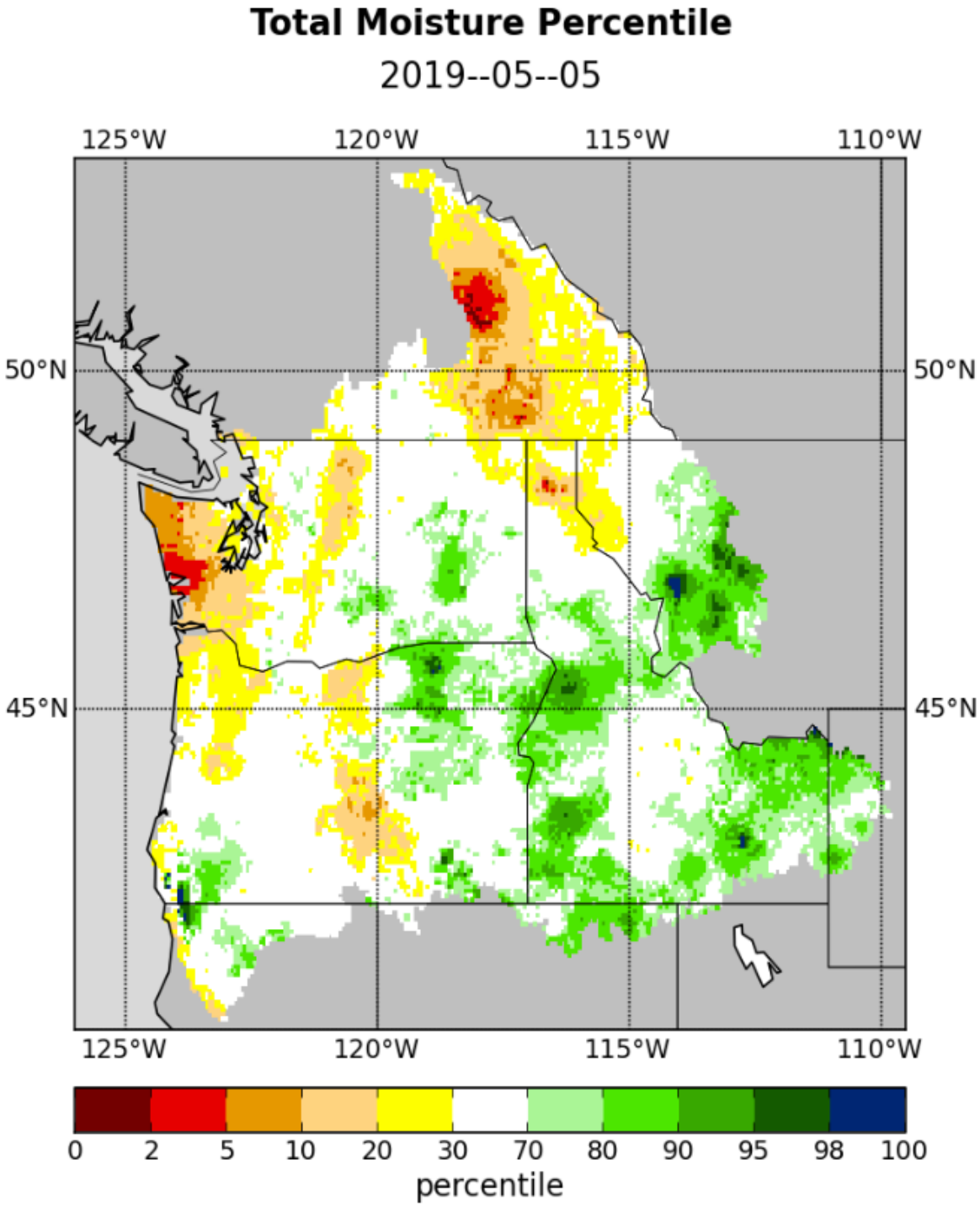
Website: http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1



Total Moisture - Percentile

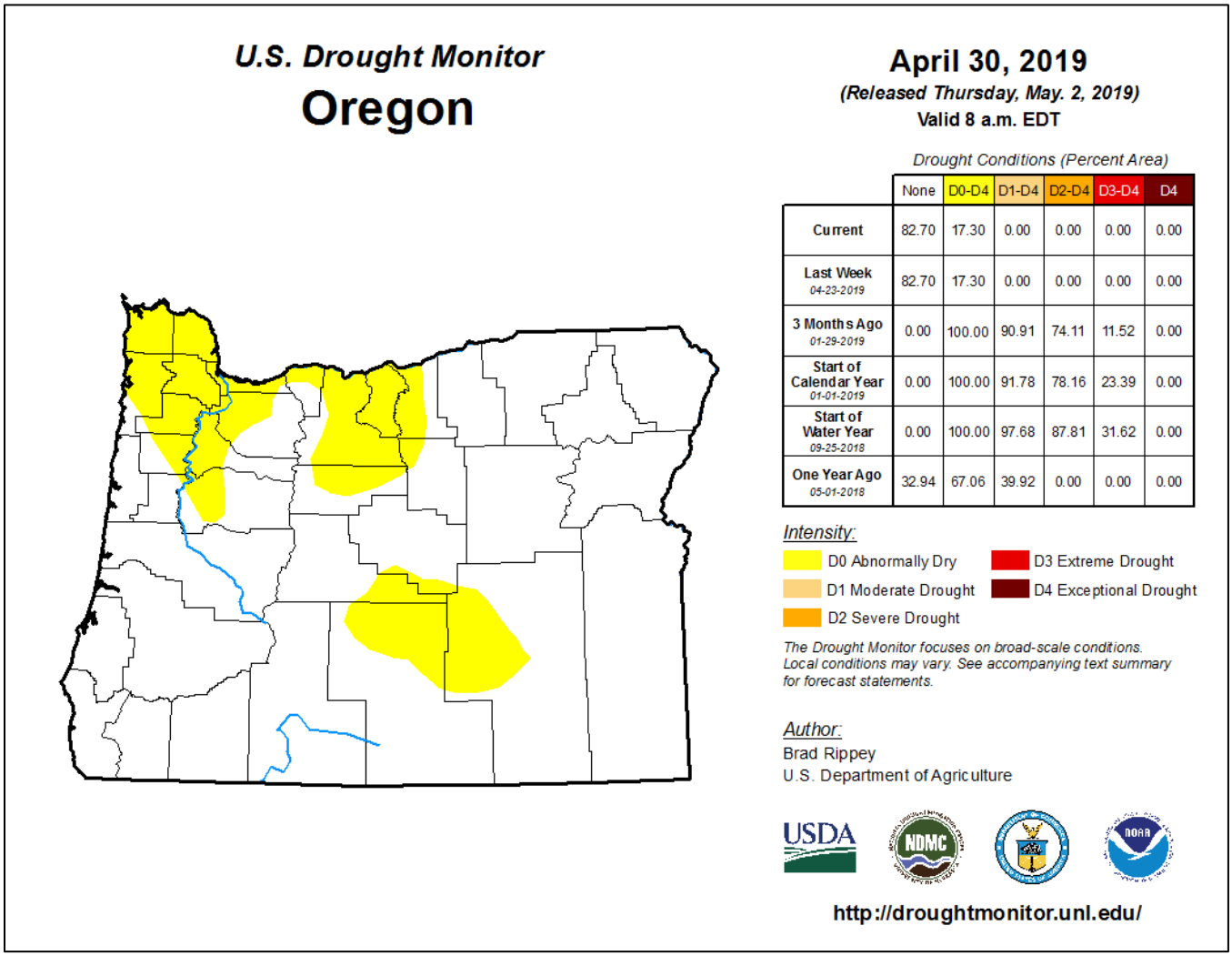
Total Moisture (STOT) is a moisture index calculated by adding Soil Moisture and Snow Water Equivalent. STOT represents the total water content of a region.

Website: http://www.hydro.ucla.edu/SurfaceWaterGroup/forecast/monitor_pnw/index.shtml

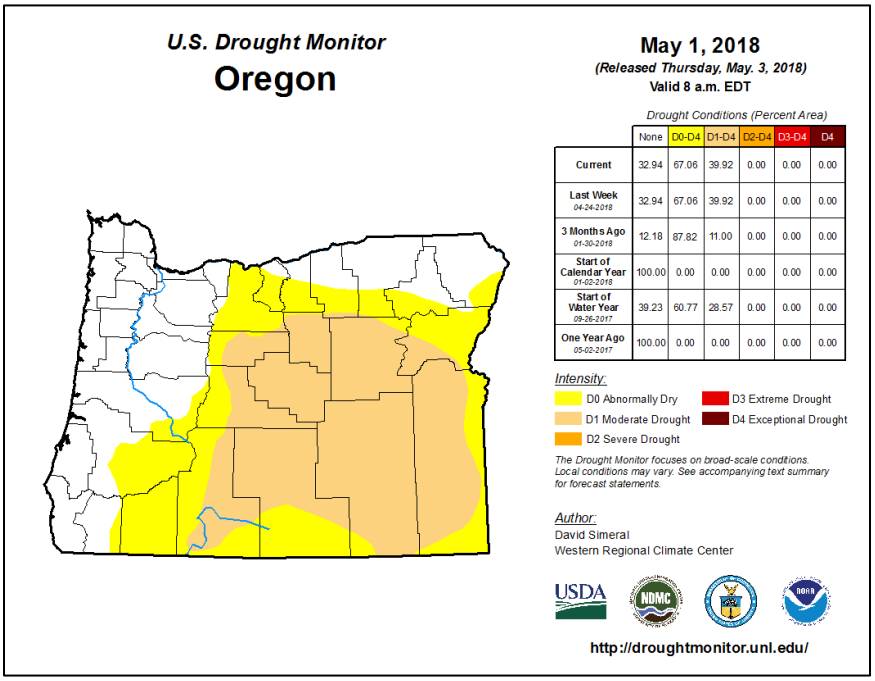


U.S. Drought Monitor for Oregon

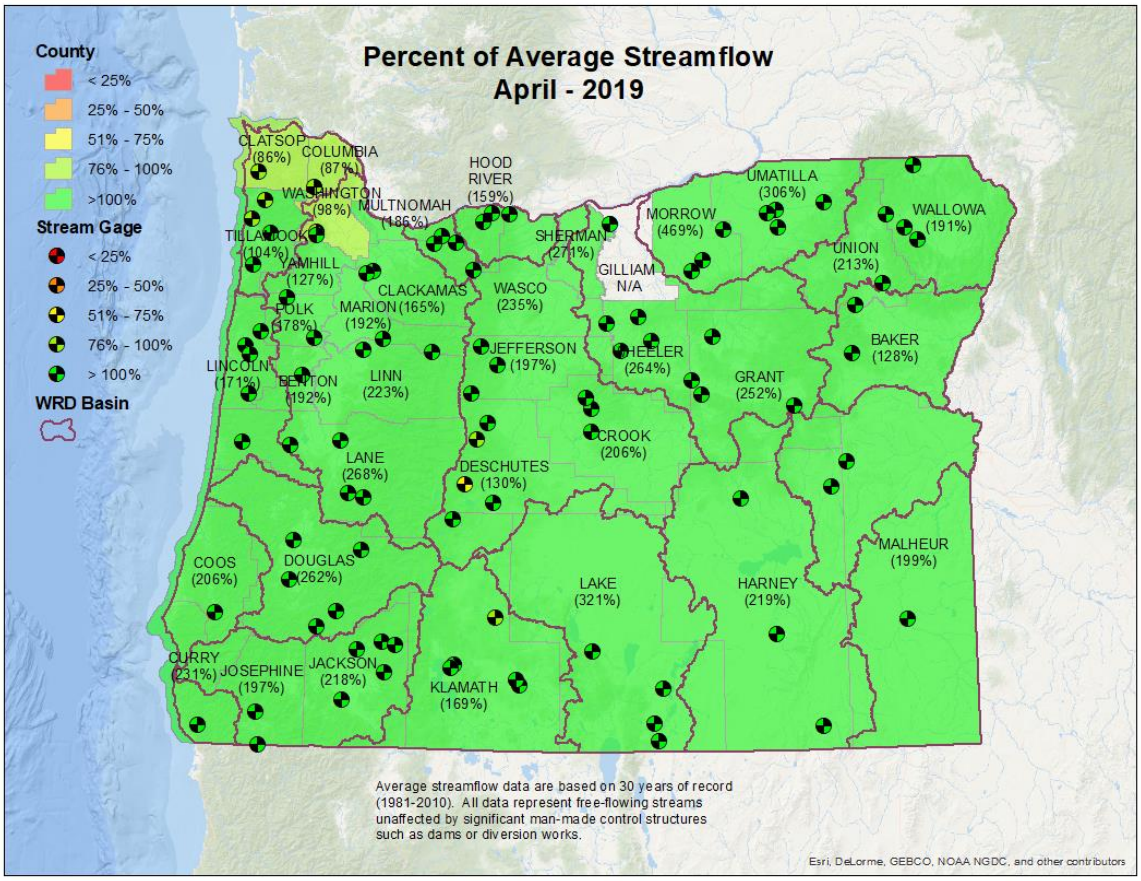
Website: https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR



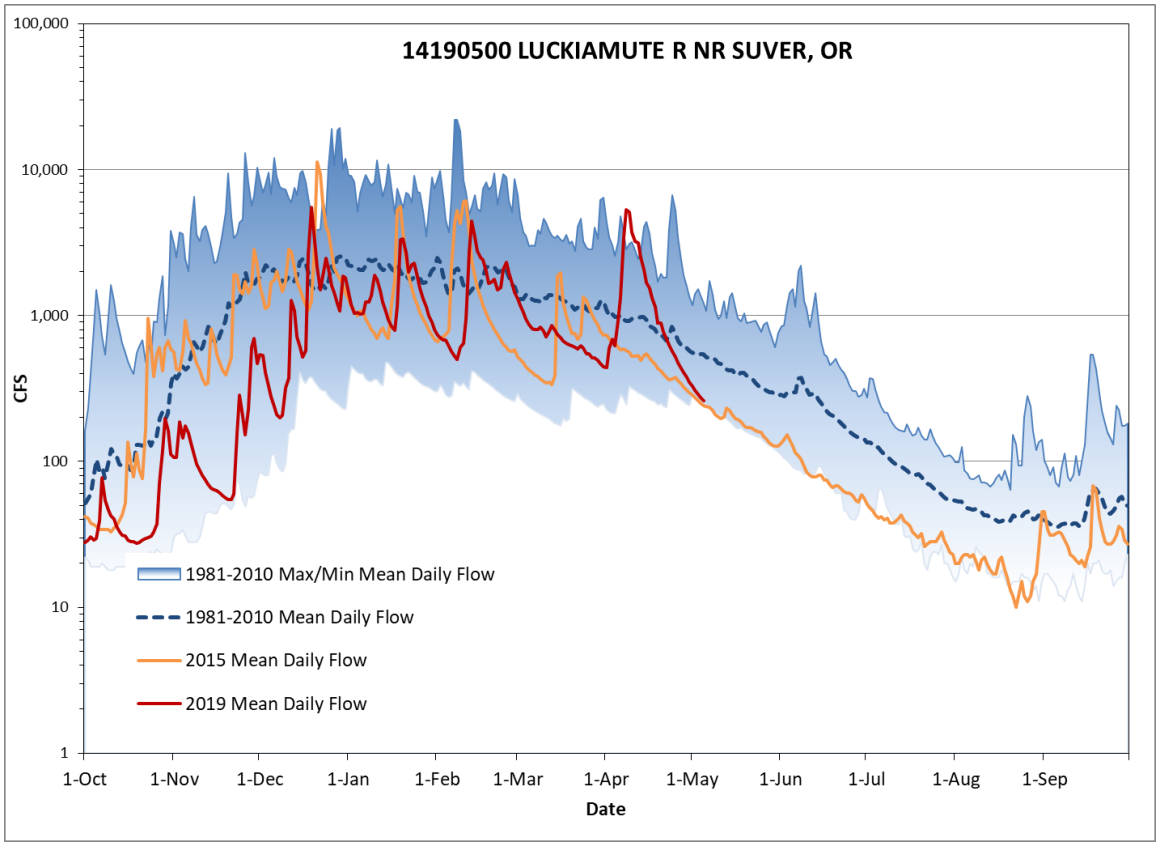
Compared to this time last year:



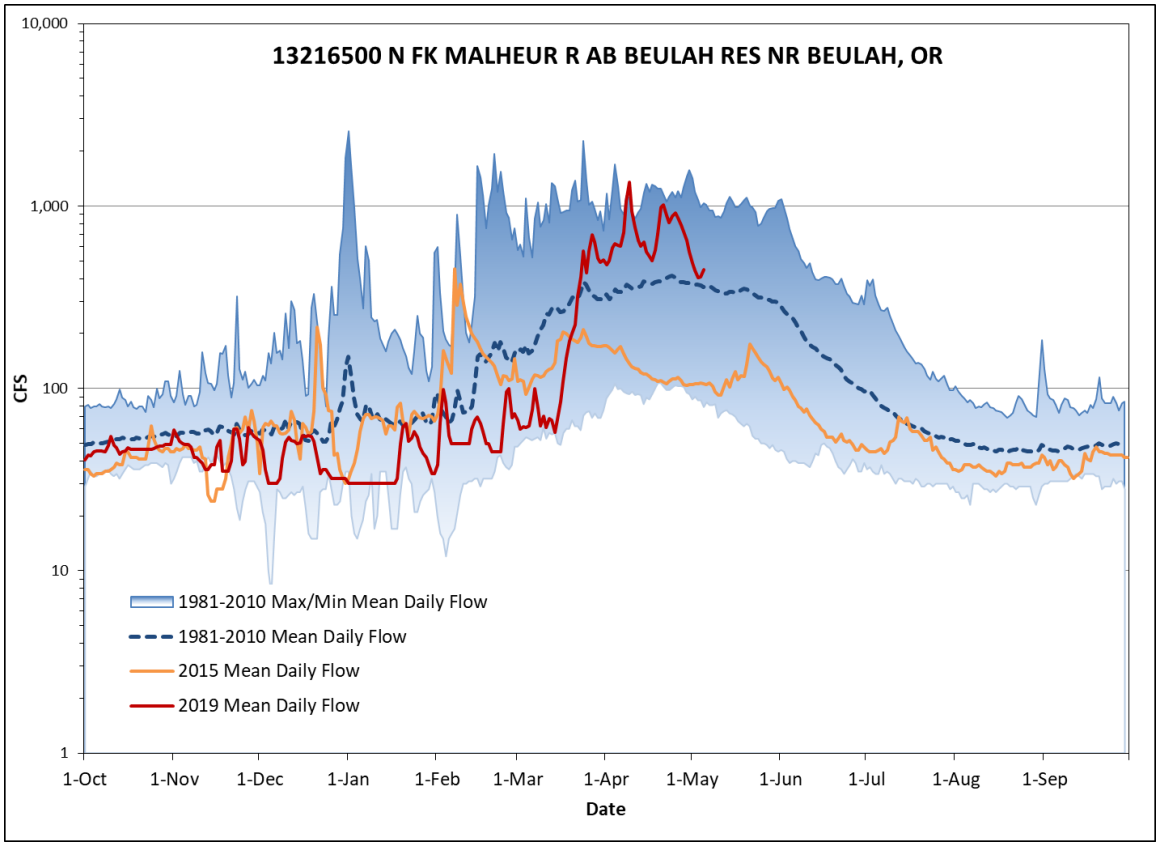
Streamflow Conditions by County - April



Streamflow Conditions – Willamette Basin (Polk County)



Streamflow Conditions – Malheur Basin (Malheur County)



Streamflow Conditions – Powder Basin (Baker County)