

Oregon Water Conditions Report October 2, 2017



Happy New (Water) Year! The 2017 water year draws to a close and looking back, it was quite a roller coaster ride. We started off the year with October precipitation events that pushed several western Oregon streams to record high levels. The ensuing winter brought above normal snowpack, melting out two to three weeks later than normal. This was followed by a cooler than normal spring and many water supply reservoirs at full capacity. Only to be one-upped by a trend reversing summer that will go down as one of the warmest in recent memory. Record heat and sparse precipitation brought discussion of “flash drought” similar to what was being experienced in Montana. The US Drought Monitor went from no drought at all in late June, to 77 percent of the state listed as “Abnormally Dry and almost 30 percent of the state listed as in “Moderate Drought” in just three months. Then there were the fires... At the start of the fire season most of the indicators were for a “normal” fire season. By early August it was evident that this would not be the case. Now that most of the fires are being mopped up there is the concern of flash flooding in these burn areas. As we have discussed in past reports, burned soils can’t absorb as much water and consequently, these areas can experience a higher risk of flash flooding. These areas are being evaluated and identified for future monitoring.

Oregon wrapped up the water year with 124% of normal statewide precipitation at NRCS’s SNOTEL sites. Recent [precipitation](#) has brought some relief to the western portions of the state. However, east of the Cascades, drier conditions prevail both in terms of soil moisture deficits and streamflow, due to the prolonged dry, hot summer months.

Most of Oregon was warmer normal for the month of [September](#). The [past three months](#) have reversed the cooler than normal trend that we started the year with. June-August 2017 is the 2nd warmest such period in Oregon in the 123 year record (2015 is #1). August of 2017 was the warmest month on record.

Over the next [8 to 14 days](#), the NOAA Climate Prediction Center is forecasting normal temperature probabilities across Oregon. The accompanying precipitation outlook is for above normal precipitation across the northwestern half of the state and normal to below normal probability for the remainder.

The NOAA Climate Prediction Center’s most recent [three month outlook](#) indicates a high likelihood of above normal temperatures along with above normal precipitation for Oregon between now and December. The next outlook will be issued on October 19, 2017.

The Climate Prediction Center has recently issued a [La Niña Watch](#) for the upcoming 2017-18 fall-winter season. There is an increasing chance (~55-60%) of La Niña during the Northern Hemisphere fall and winter 2017-18. For in-depth discussions, refer to the [diagnostic discussion](#)

or the very informative [blog](#) by CPC contractor Emily Becker. The situation continues to be monitored and any changes will be made to the status by the Climate Prediction Center.

Statewide streamflows for the month of September were 92 percent of normal. This is up from 85 percent last month. Regionally streamflow conditions were at over 95 percent west of the Cascades and almost 90 percent east of the Cascades.

Of note, flows in the Umatilla, John Day, and Powder Basins are all less than 70 percent of normal. Flows in the Umatilla continue to rank the lowest in the state at 55 percent. With the Powder and John Day at 67 and 68 percent of normal respectively. As of September 30, streamflows have decreased to 70 percent west of the Cascades and have increased to 94 percent of normal to the east. Short term weather outlooks indicate that this downward trend will slow temporarily but may continue.

Most of the state's water supply reservoirs are at normal levels for this time of year.

[Willamette](#) and [Rogue](#) project reservoirs remain on track this summer. [Hills Creek Reservoir](#) in the Willamette Basin was held to lower than normal levels for maintenance projects. Minimum streamflow targets are projected to be met for the rest of the season. [Central Oregon](#) reservoirs are between 36 and 80 percent of capacity. [Eastern Oregon](#) reservoirs continue to hover between 20 and 60 percent of capacity. Most are ramping down releases of stored water for the supply season. For the most recent near real-time, site-specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

Due to continuing higher than normal temperatures, the [US Drought Monitor](#) indicates that 60 percent of Oregon is now categorized as “abnormally dry” along with 28 percent of the state that has now been categorized as in “moderate drought”.

Rain and cooler temperatures have helped to dampen wildfires. Fire potential is now listed as “Low” in large areas of Oregon with smaller areas of “Moderate” potential in the mid-coast and southwestern Oregon. The Oregon Department of Forestry [Significant Fire Potential](#) map provides the latest detail. Information and updates on current and developing wildfire conditions can be accessed at the [ODF Wildfire Blog](#). For statewide incident-specific information refer to the [InciWeb](#) incident reporting system.

Data & Products:

Page:

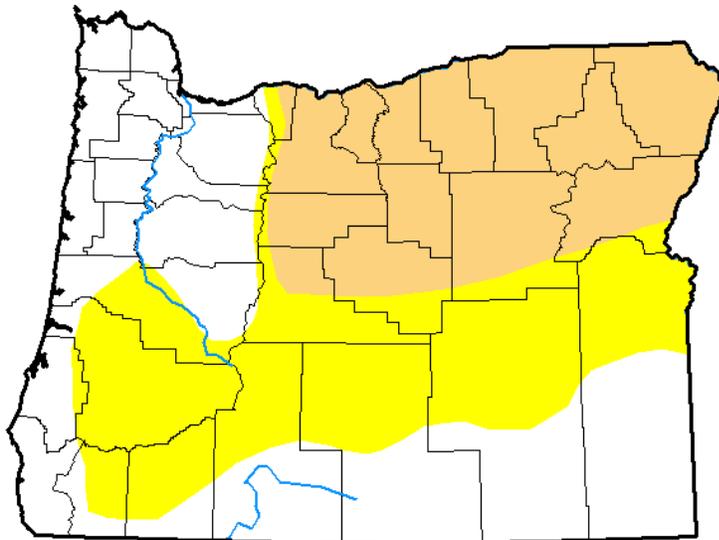
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U.S. Drought Monitor for Oregon

Website: <http://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?OR>

U.S. Drought Monitor Oregon

September 26, 2017
(Released Thursday, Sep. 28, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.23	60.77	28.57	0.00	0.00	0.00
Last Week <i>09-19-2017</i>	22.26	77.74	28.57	0.00	0.00	0.00
3 Months Ago <i>06-27-2017</i>	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year <i>01-03-2017</i>	65.31	34.69	5.29	0.00	0.00	0.00
Start of Water Year <i>09-27-2016</i>	0.00	100.00	50.59	12.30	0.00	0.00
One Year Ago <i>09-27-2016</i>	0.00	100.00	50.59	12.30	0.00	0.00

Intensity:

- 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. See accompanying text summary for forecast statements.

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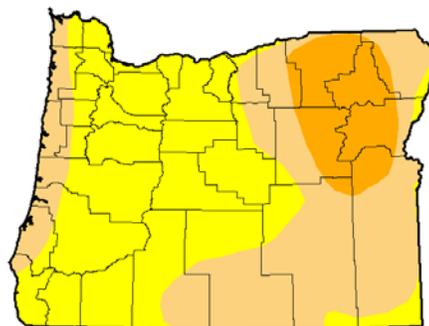


<http://droughtmonitor.unl.edu/>

Compared to this time last year:

U.S. Drought Monitor Oregon

September 27, 2016
(Released Thursday, Sep. 29, 2016)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	50.59	12.30	0.00	0.00
Last Week <i>09-20-2016</i>	0.00	100.00	50.59	12.30	0.00	0.00
3 Months Ago <i>06-29-2016</i>	0.00	100.00	44.55	0.00	0.00	0.00
Start of Calendar Year <i>01-04-2016</i>	14.52	85.48	80.45	65.32	39.55	0.00
Start of Water Year <i>09-29-2015</i>	0.00	100.00	100.00	100.00	67.29	0.00
One Year Ago <i>09-29-2015</i>	0.00	100.00	100.00	100.00	67.29	0.00

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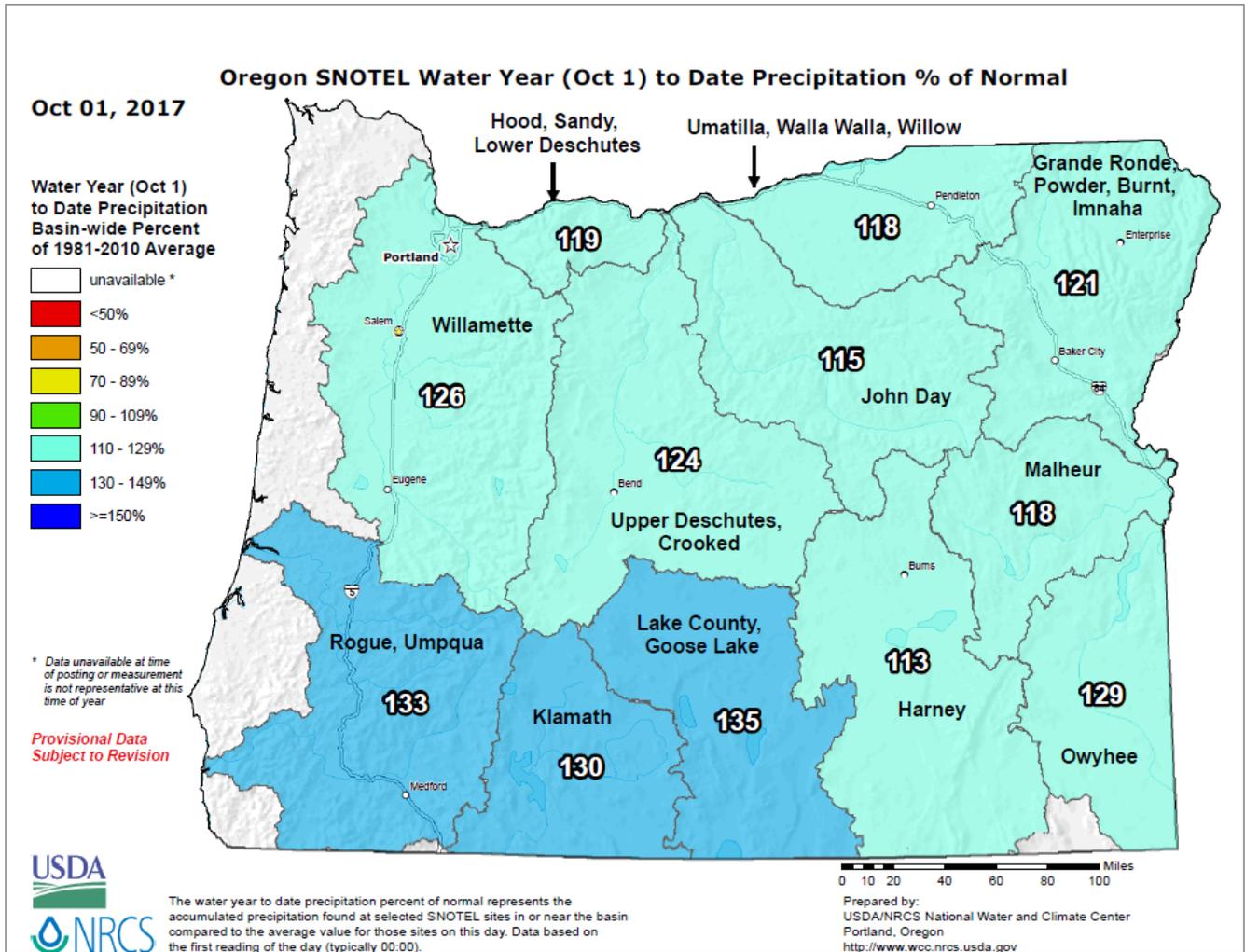
Author:

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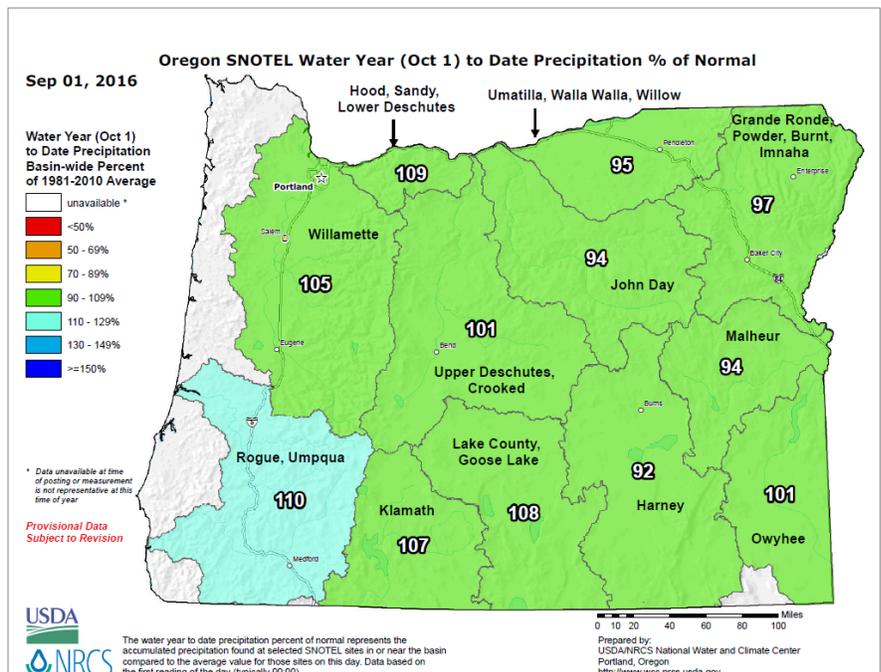


<http://droughtmonitor.unl.edu/>

Precipitation (mountain) - Percent of Normal



Compared to this time last year -



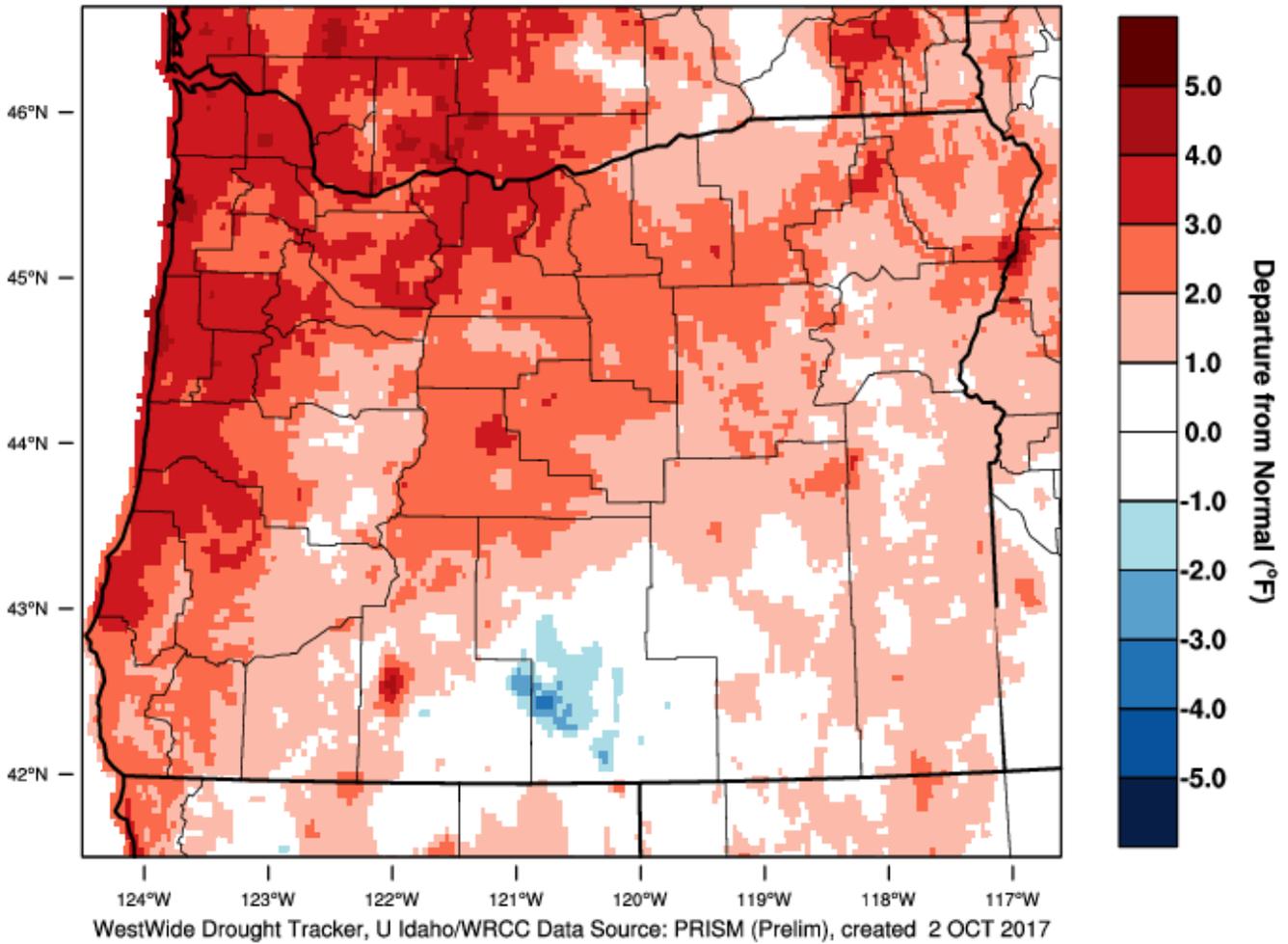
Temperature – (1 Month) Departure from Normal

Website: <http://www.wrcc.dri.edu/wwdt/index.php?folder=mdn1>

PRISM > Temperature Anomaly 1 Month > Oregon

Oregon - Mean Temperature

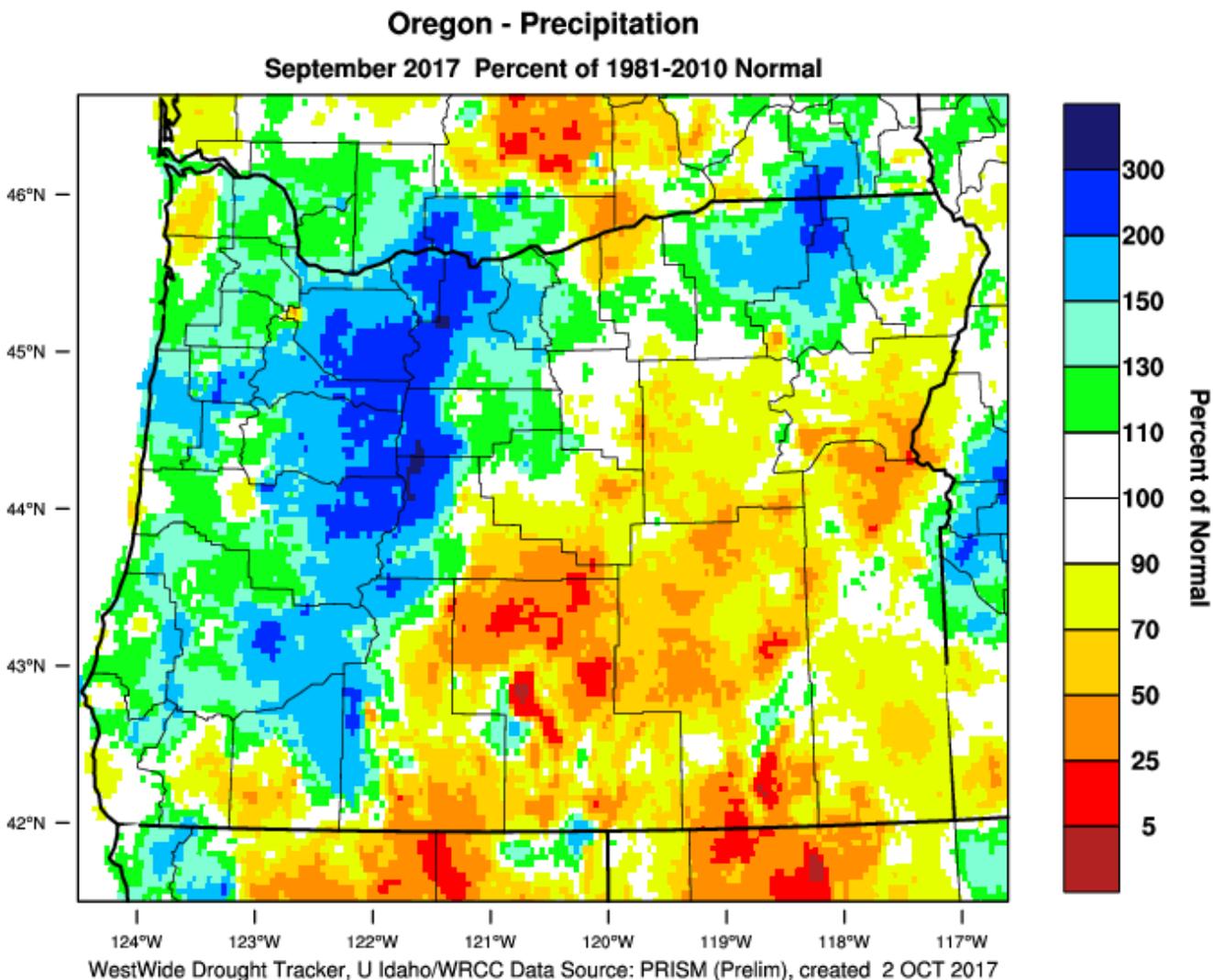
September 2017 Departure from 1981-2010 Normal



Precipitation – (1 Month) Percent of Normal

Website: <http://www.wrcc.dri.edu/wwdt/index.php?folder=pon1>

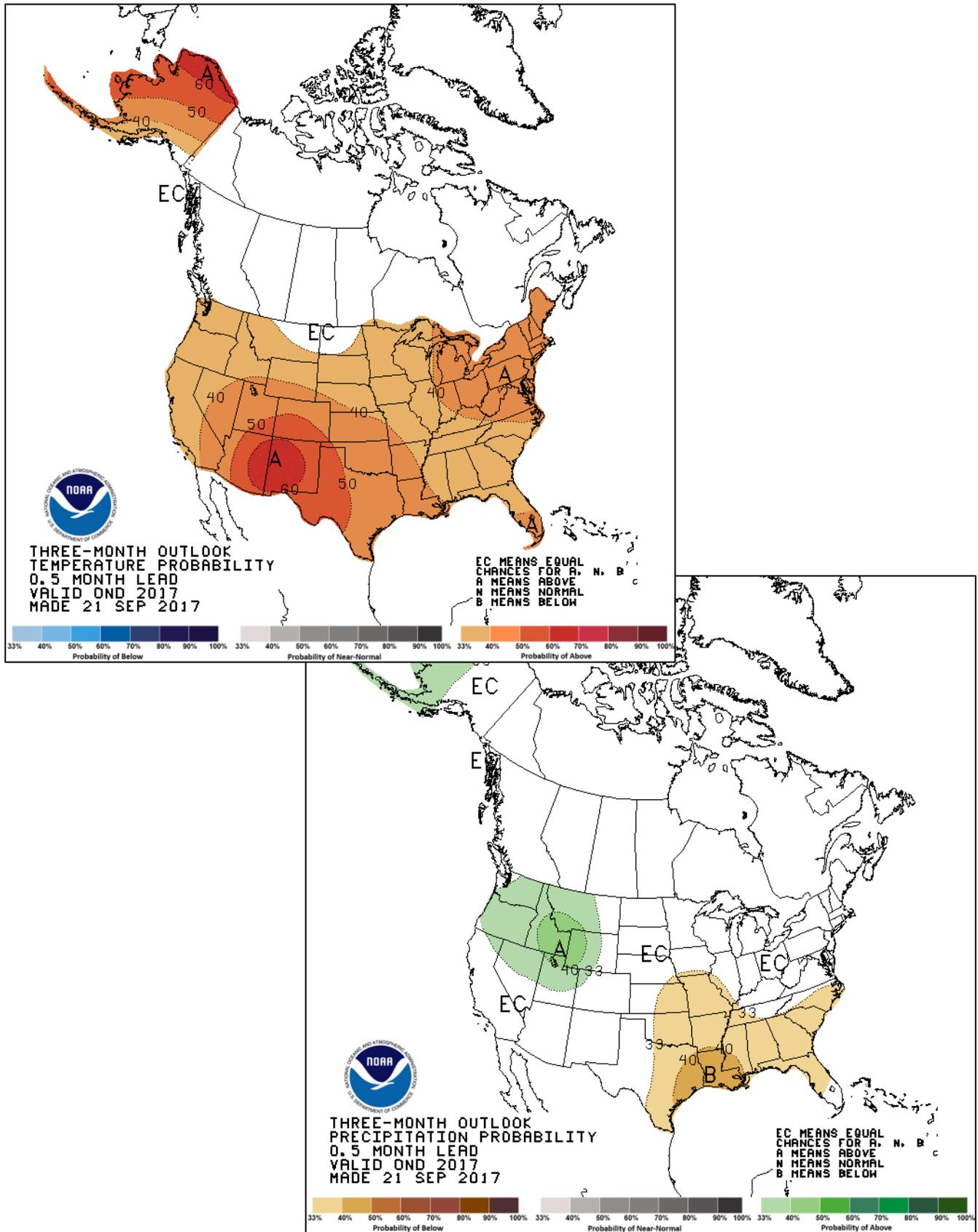
PRISM > Precipitation Anomaly 1 Month > Oregon



Three Month Temperature and Precipitation Outlook

October - December – Follow link for the latest information.

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



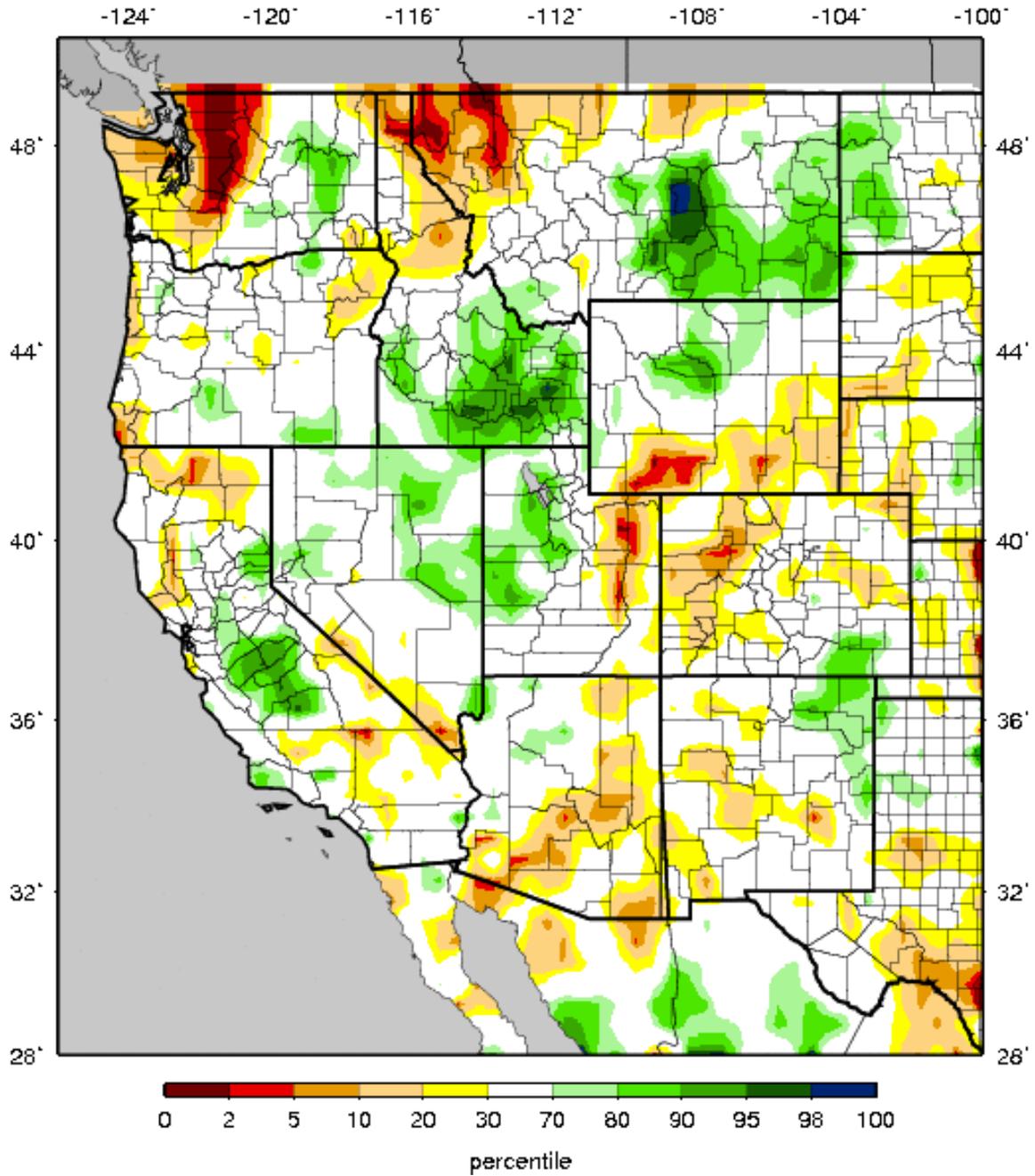
Soil Moisture - Percentile

Website:

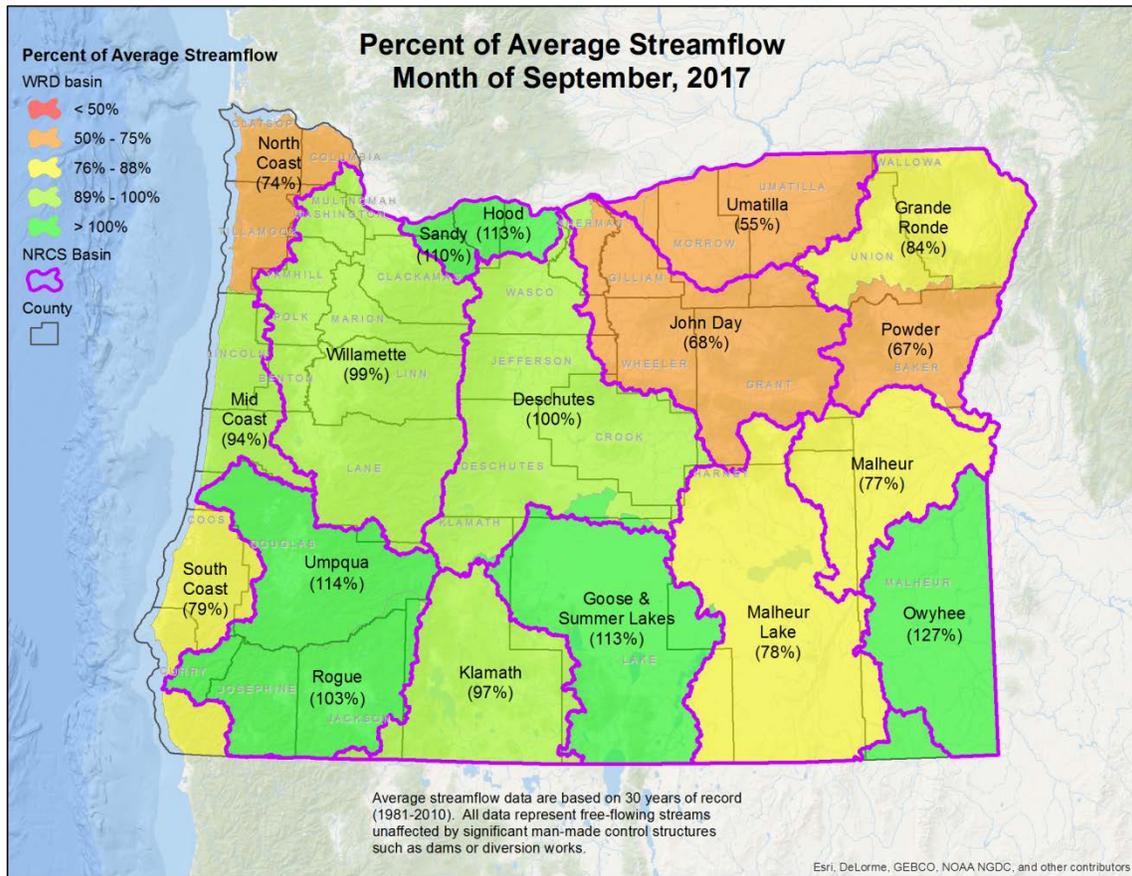
http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm_qnt.gif

VIC Soil Moisture Percentiles (wrt/ 1916-2004)

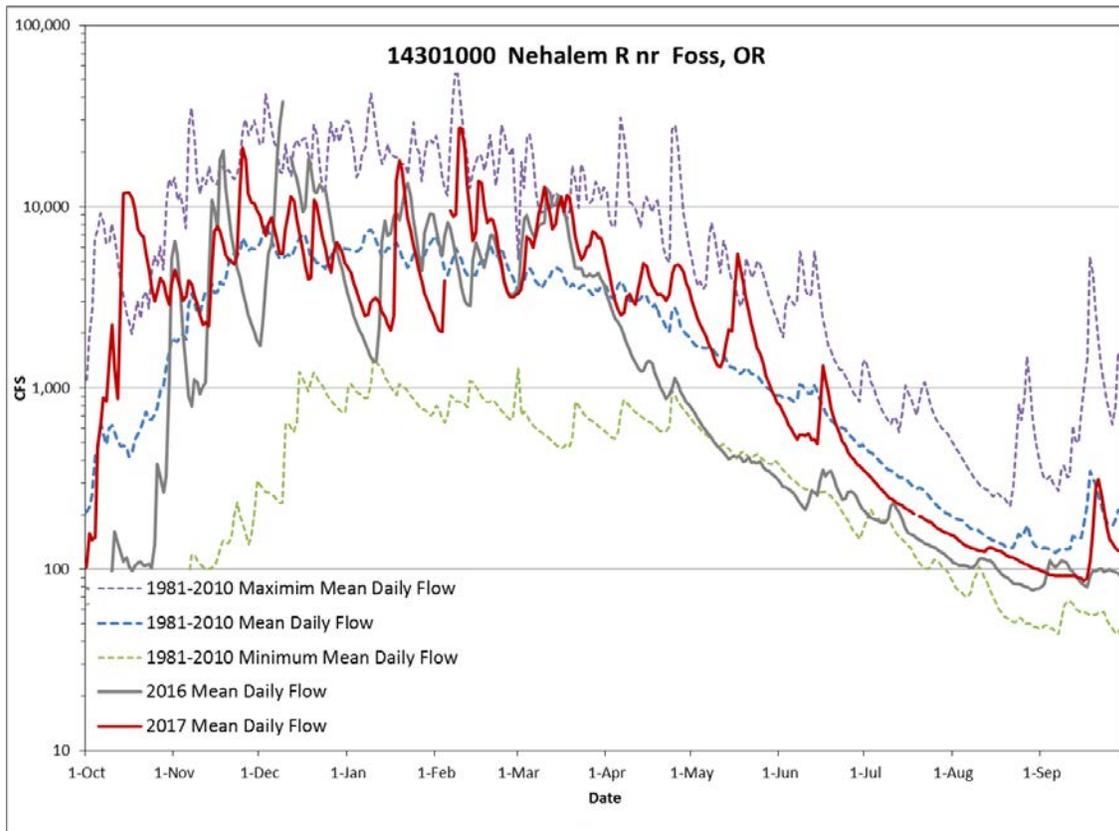
Western United States - 20171001



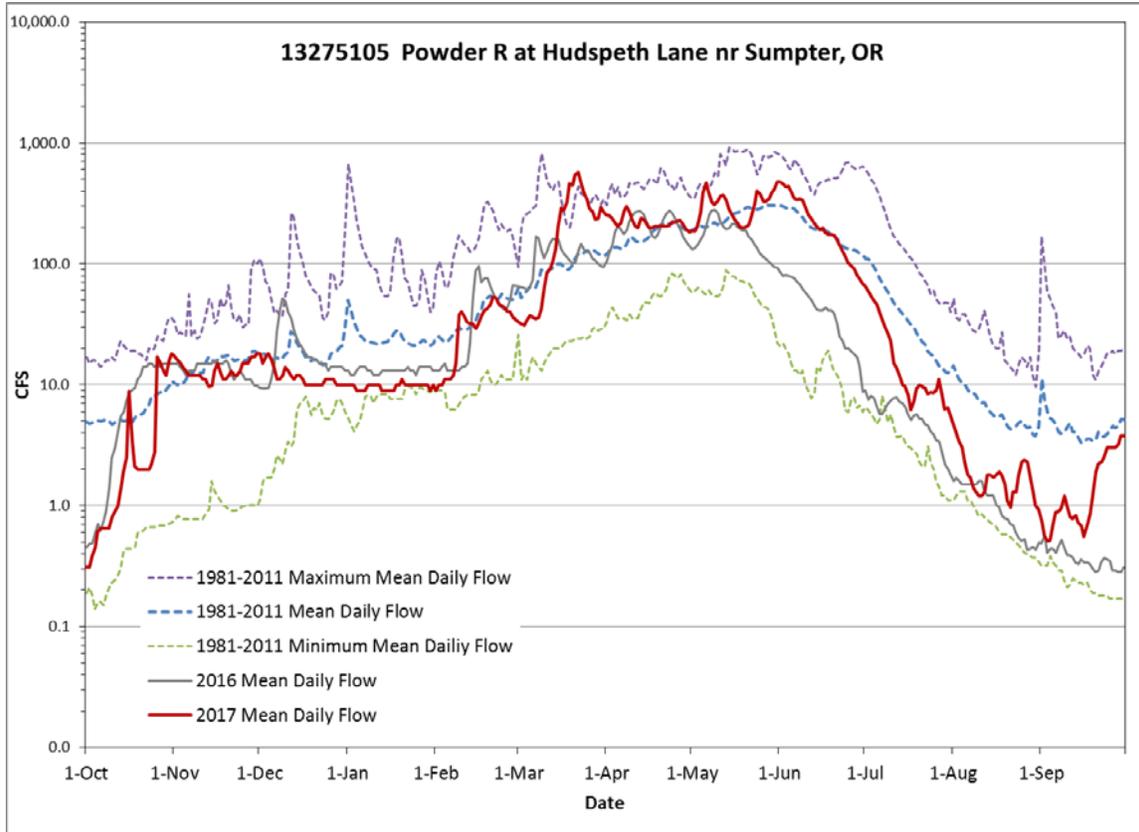
Regional Streamflow Conditions - September



Streamflow Example – North Coast



Streamflow Example – Powder



Streamflow Example – Deschutes

