

# Oregon

## Water Conditions Report

### November 14, 2016

---



**Conditions in the past two weeks have been a marked contrast to the past month's higher than normal precipitation and ensuing high streamflows.** In the past two weeks weather conditions have been drier and warmer. As a result, stream flows have quickly receded to less than average for this time of year. Of note is that while the accumulation of precipitation since the beginning of the water year (October 1) has been well above normal, snowpack is well behind. This has been due to above normal temperatures in the past month.

**Precipitation across much of the state has been below average during the past two weeks.** Some areas in central Oregon received less than 25 percent of normal amounts of precipitation. Exceptions were parts of the north to middle coast regions that received between 70 to 90 percent. Contrast this with the past 30 days when, with the exception of the southeast corner, most of the state received well over 100 percent. Refer to the graphics on page 3 for greater detail of both the two week and 30 day precipitation.

**Above average temperatures are expected to continue through January.** In the last two weeks, temperatures across most of Oregon were well above average. Areas across central and north central parts of the state were 6 to 10 degrees warmer than normal. NOAA's Climate Prediction Center continues to predict increased odds of warmer than normal conditions through fall and winter.

Current climate observations continue to reflect ENSO-Neutral conditions for the 2016/2017 fall and winter season. However, there is still the continuing discussion of an increasing likelihood of a mild La Nina potential. For the Pacific Northwest, ENSO-Neutral conditions mean that there's an equal likelihood of above average or below average precipitation in coming months. La Nina would bring wetter, cooler conditions.

**Statewide average streamflows are less than 80 percent of normal.** This is in stark contrast to the almost 300 percent seen two weeks ago. Regionally, streamflow conditions east of the cascades are a little under 80 percent of normal. Westside streams are around 75 percent of normal for this time of year.

**Reservoir storage levels are still expectedly low but October rainfall has helped to temporarily increase inflows.** Reservoirs in the eastern part of Oregon continue to be well below normal even for this time of year. See page 10 for a statewide map of storage conditions. For site specific reservoir conditions (teacup diagrams) visit the [USBR](#) or [USACE](#) websites.

**There has been a steady improvement in drought conditions across much of Western and Central Oregon.** As of November 8, the US Drought Monitor has indicated that 56 percent of the state is no longer listed in any drought category. However, 44 percent of the state is still listed in the D0 (abnormally dry) category as well as 23 percent listed as D1 (moderate drought) category. Of note are areas in Baker and Malheur Counties that continue to be listed in the D2 (severe drought) category. Soil moisture models continue to indicate drier than normal conditions within these areas. The effect of recent rainfall on soil moisture is evident in the map on page 7.

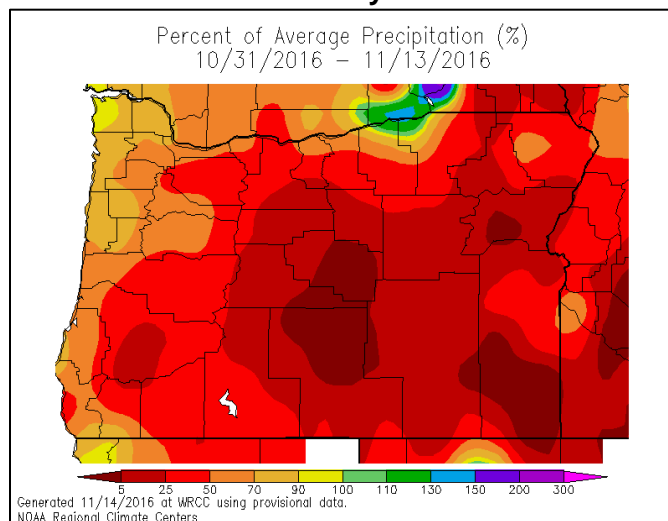
**Last month the Oregon Department of Forestry announced the end of the 2016 fire season.** ODF and its fire protective association partners suppressed 807 fires in 2016 that burned 5,554 acres and cost about \$17.4 million. In comparison, the volatile fire seasons from 2013-2015 accounted for an annual average of 81,467 acres and about \$88 million in fire suppression costs. Visit the [ODF wildfire blog](#) for a summary of the 2016 fire season. This will be the last wildfire update until the start of the 2017 wildfire season.

| <b>Data &amp; Products:</b>                                     | <b>Page:</b> |
|---|--------------|
| Precipitation – Percent of Average .....                        | 3            |
| Temperature - Departure from Average.....                       | 3            |
| Precipitation and Snowpack Comparison- Percent of Average ..... | 4            |
| Three Month Temperature and Precipitation Outlook .....         | 5            |
| U.S. Drought Monitor for Oregon.....                            | 6            |
| Soil Moisture.....  | 7            |
| USDA Federal Drought Designations .....                         | 8            |
| November Regional Streamflow Conditions .....                   | 9            |
| Streamflow Example - Western Oregon .....                       | 9            |
| Streamflow Example – Eastern Oregon.....                        | 10           |
| Regional Reservoir Storage Conditions.....                      | 10           |

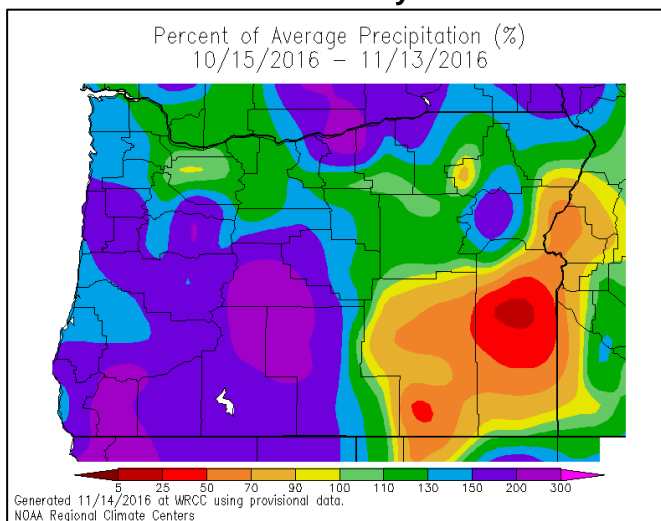
## Precipitation – Percent of Average

Website: [http://www.wrcc.dri.edu/anom/ore\\_anom.html](http://www.wrcc.dri.edu/anom/ore_anom.html)

**Last 14 days**



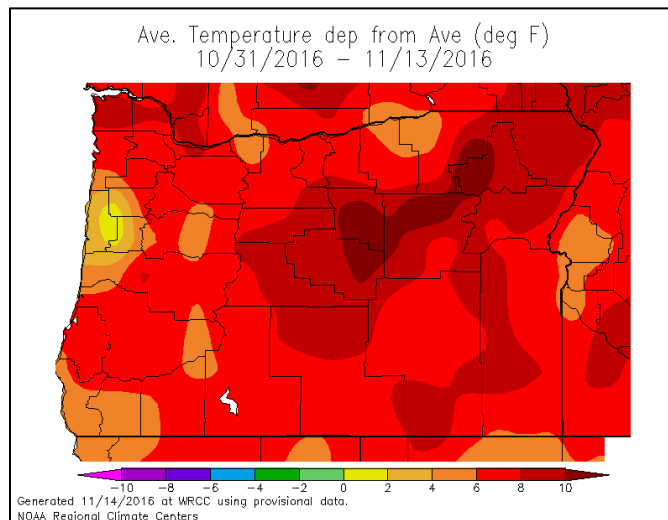
**Last 30 days**



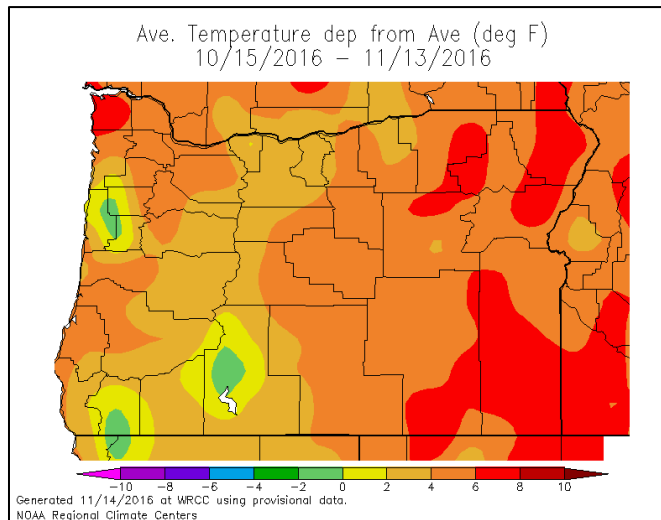
## Temperature - Departure from Average

Website: [http://www.wrcc.dri.edu/anom/ore\\_anom.html](http://www.wrcc.dri.edu/anom/ore_anom.html)

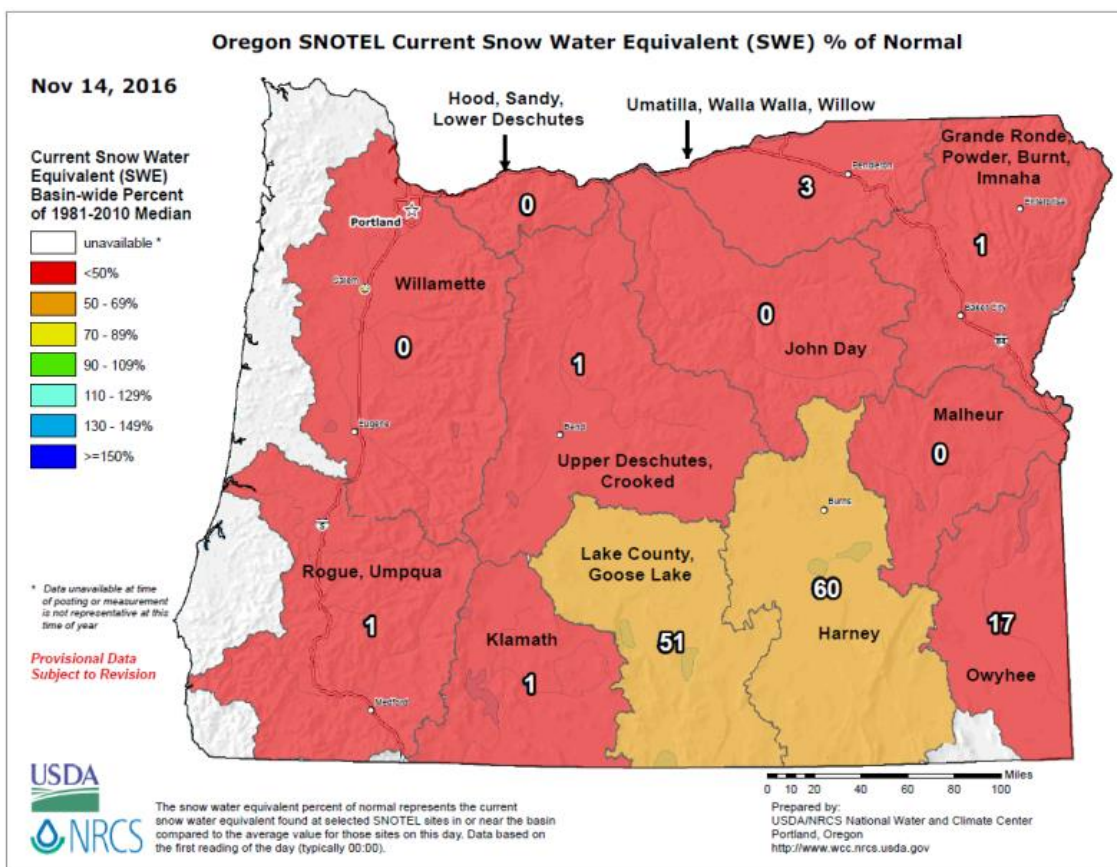
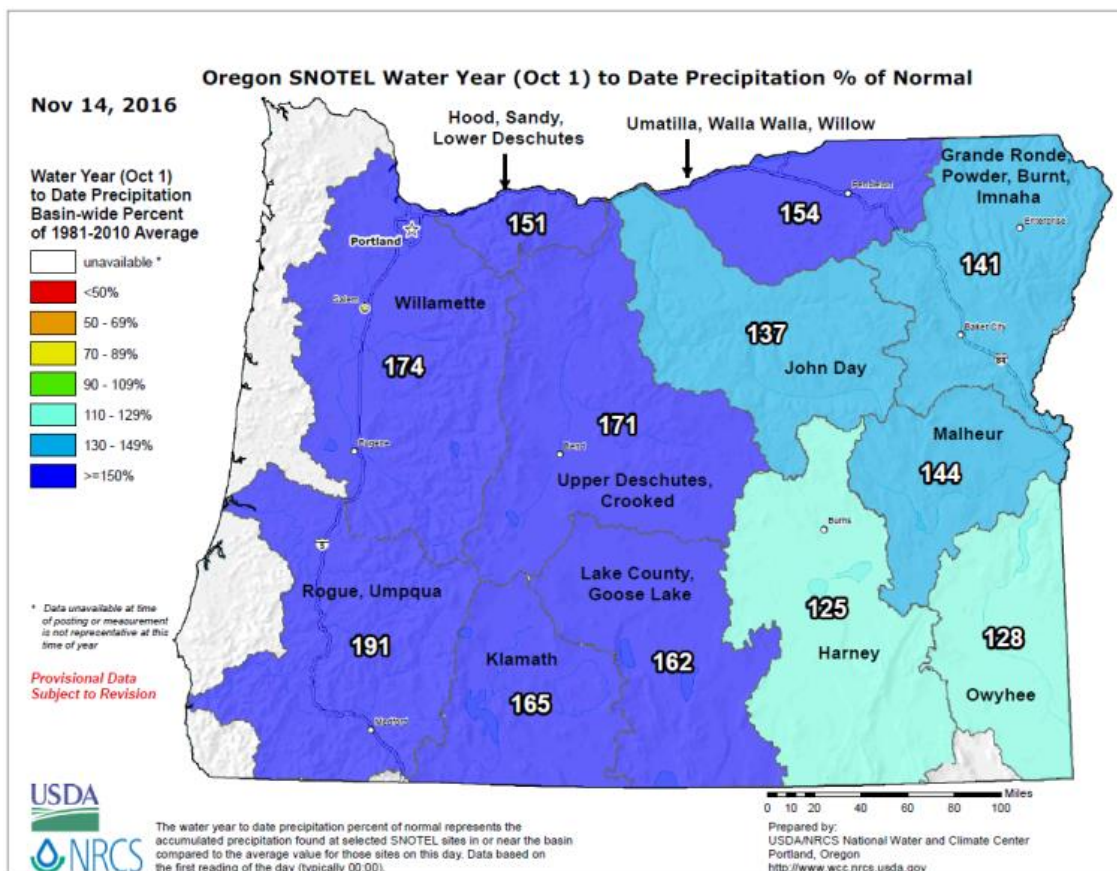
**Last 14 days**



**Last 30 days**



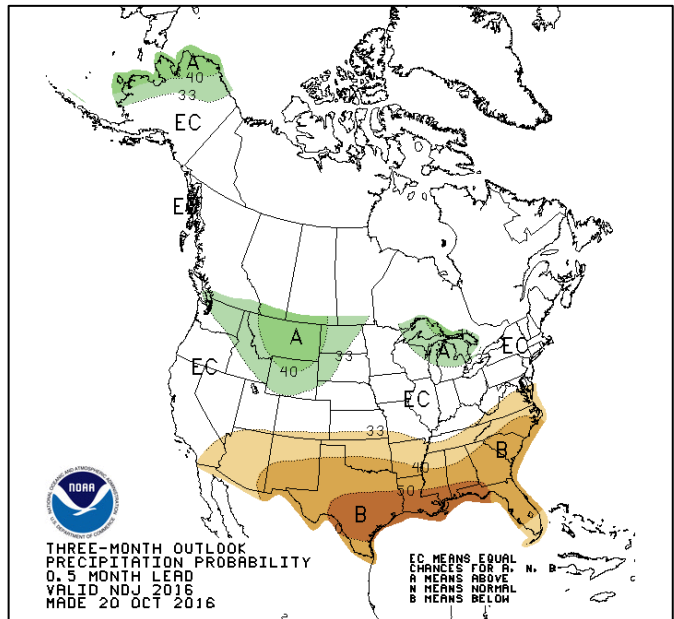
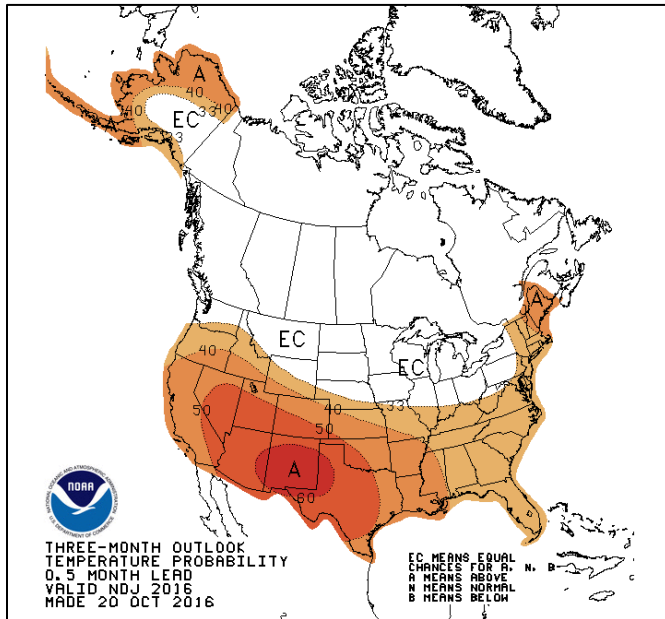
## Precipitation and Snowpack Comparison- Percent of Average



# Three Month Temperature and Precipitation Outlook

November-December-January

Website: [http://www.cpc.ncep.noaa.gov/products/predictions/long\\_range/seasonal.php?lead=1](http://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1)



# U.S. Drought Monitor for Oregon

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

## U.S. Drought Monitor Oregon

**November 8, 2016**

(Released Thursday, Nov. 10, 2016)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

|   | None  | D0-D4  | D1-D4  | D2-D4 | D3-D4 | D4   |
|---|-------|--------|--------|-------|-------|------|
| <b>Current</b>                              | 56.44 | 43.56  | 23.22  | 2.63  | 0.00  | 0.00 |
| <b>Last Week</b><br>11/1/2016               | 56.44 | 43.56  | 27.07  | 2.63  | 0.00  | 0.00 |
| <b>3 Months Ago</b><br>8/9/2016             | 0.00  | 100.00 | 50.20  | 12.03 | 0.00  | 0.00 |
| <b>Start of Calendar Year</b><br>12/29/2015 | 14.52 | 85.48  | 80.45  | 65.33 | 39.55 | 0.00 |
| <b>Start of Water Year</b><br>9/27/2016     | 0.00  | 100.00 | 50.59  | 12.30 | 0.00  | 0.00 |
| <b>One Year Ago</b><br>11/10/2015           | 0.00  | 100.00 | 100.00 | 91.53 | 60.69 | 0.00 |

Intensity:

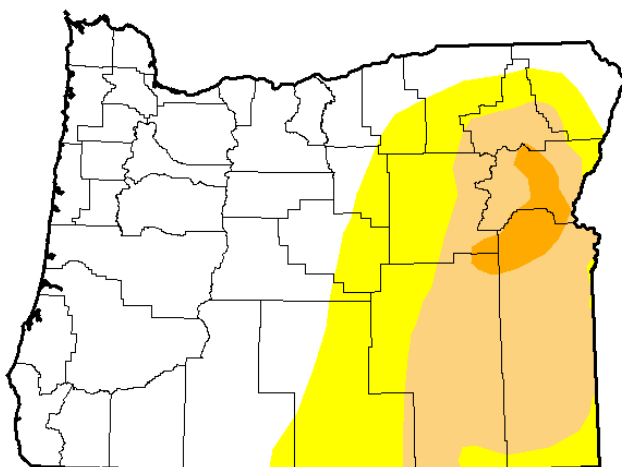
■ D0 Abnormally Dry     ■ D3 Extreme Drought  
■ D1 Moderate Drought     ■ D4 Exceptional Drought  
■ D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**

Deborah Bathke

National Drought Mitigation Center



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

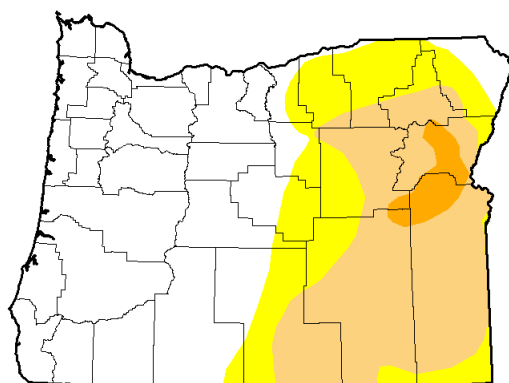
**Note: Some improvement from October 25, 2016 report**

## U.S. Drought Monitor Oregon

**October 25, 2016**

(Released Thursday, Oct. 27, 2016)

Valid 8 a.m. EDT



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.

**Author:**

David Simeral  
Western Regional Climate Center



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

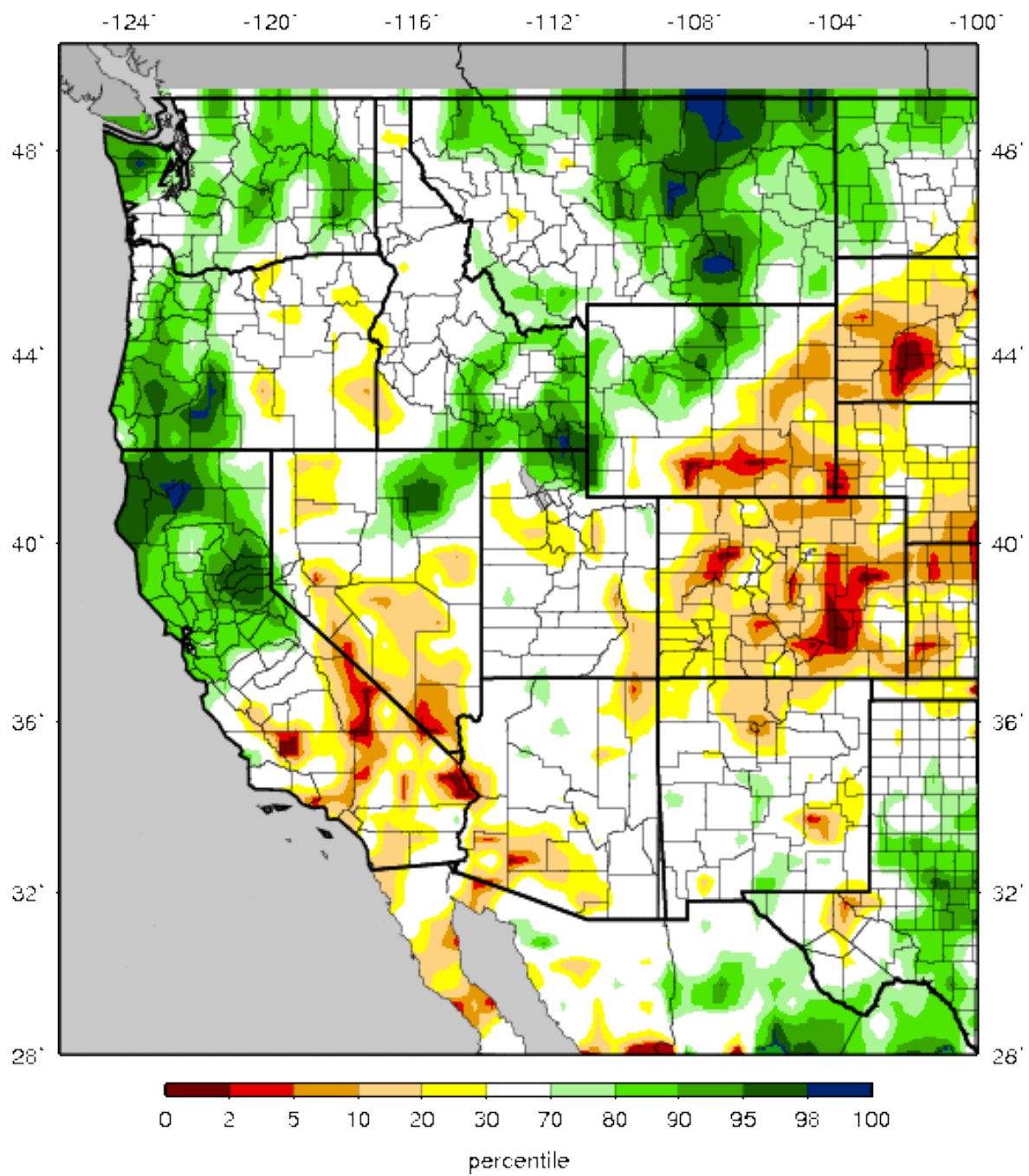


## Soil Moisture

Website: [http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm\\_qnt.gif](http://www.hydro.washington.edu/forecast/monitor/curr/conus.mexico/west.vic.sm_qnt.gif)

VIC Soil Moisture Percentiles (wrt' 1916-2004)

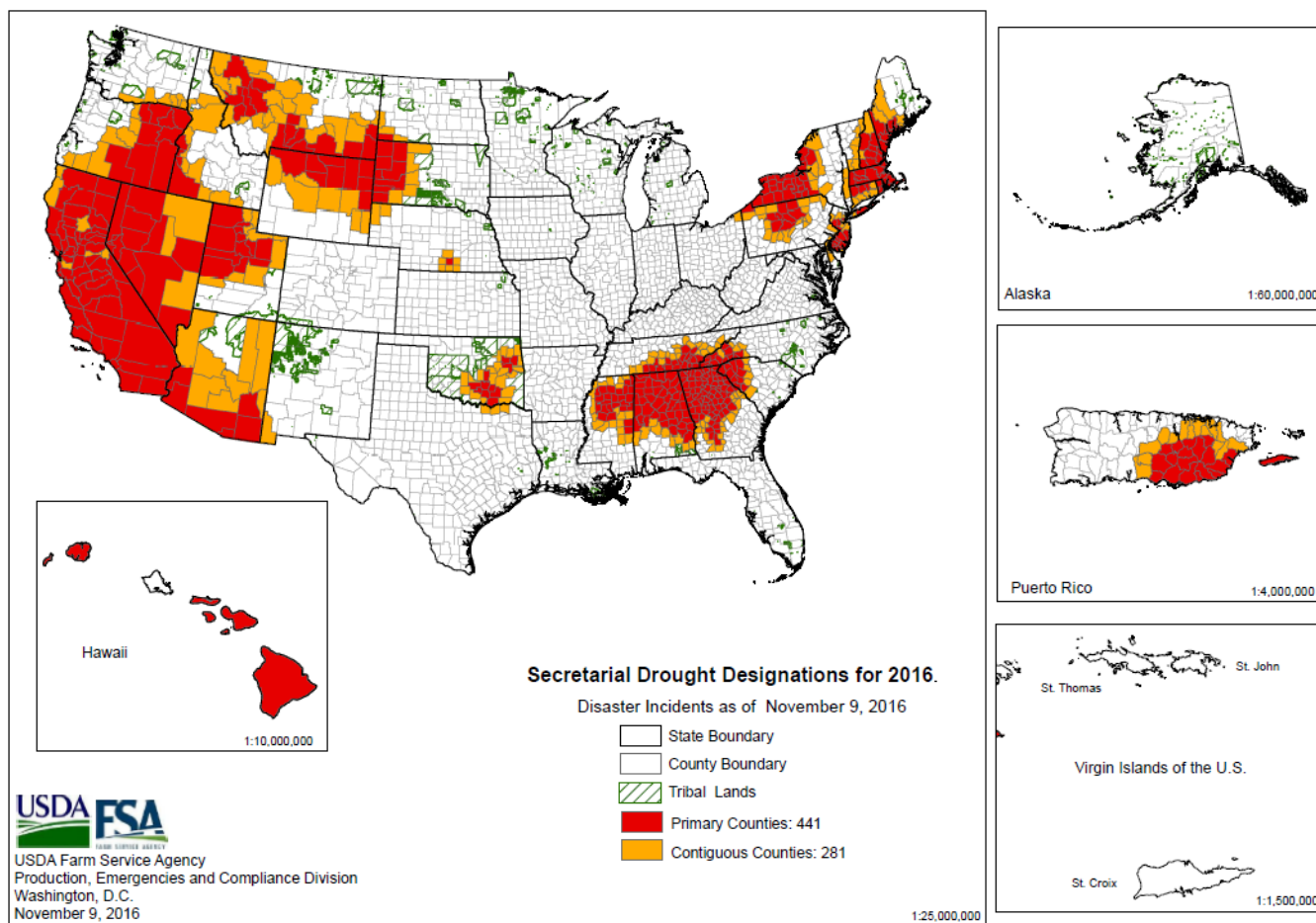
Western United States - 20161113



# USDA Federal Drought Designations

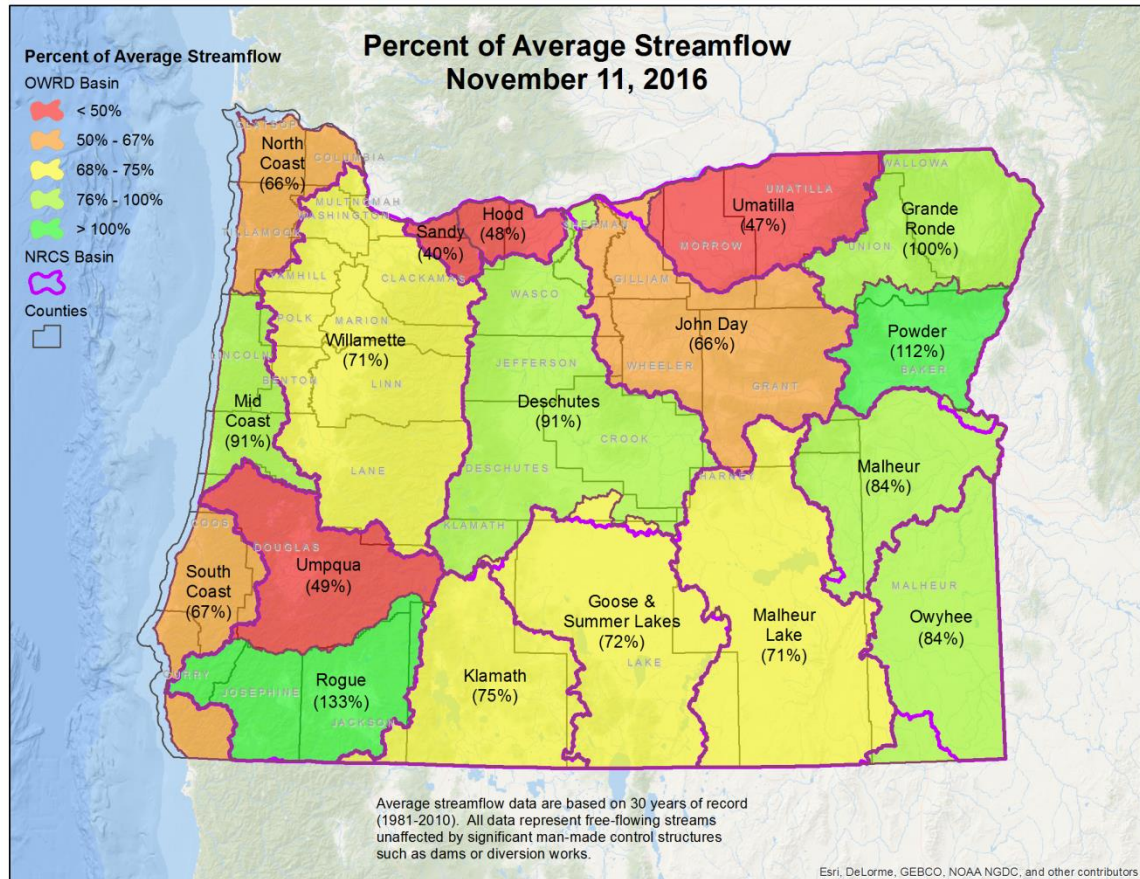
Website: <http://www.usda.gov/documents/usda-drought-fast-track-designations.pdf>

## 2016 Secretarial Drought Designations - All Drought

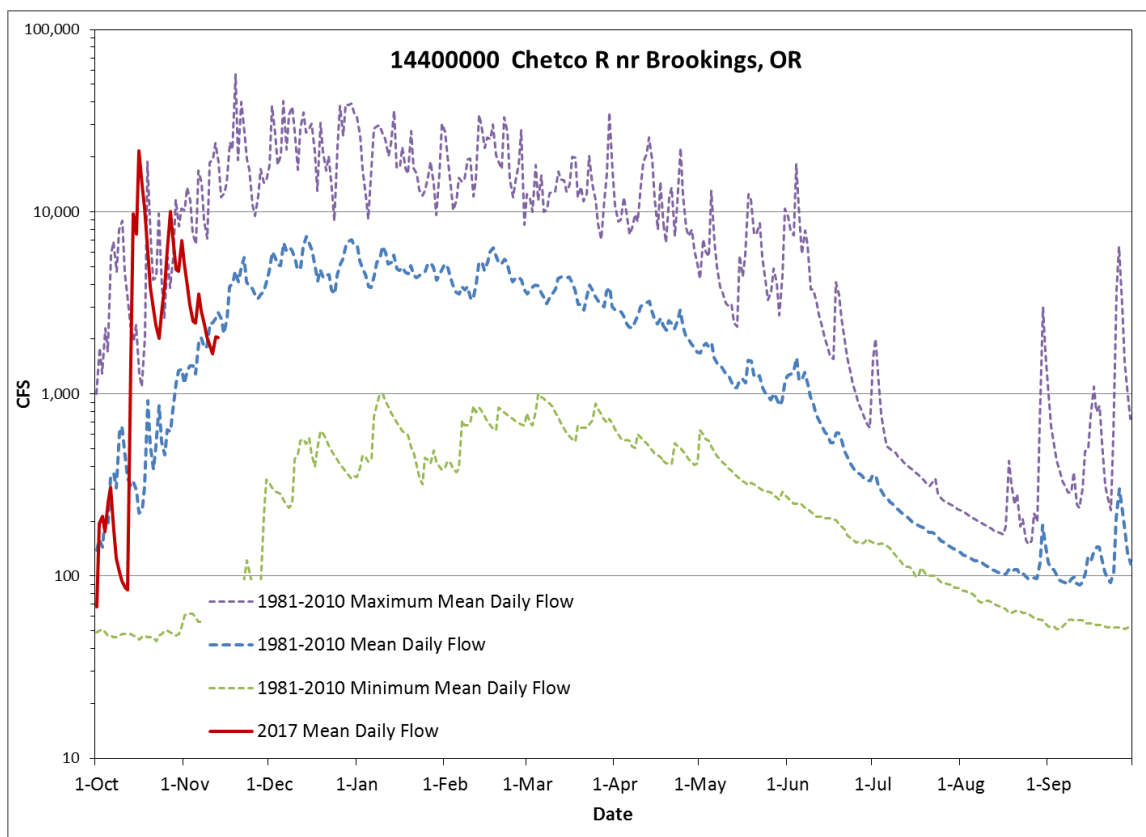




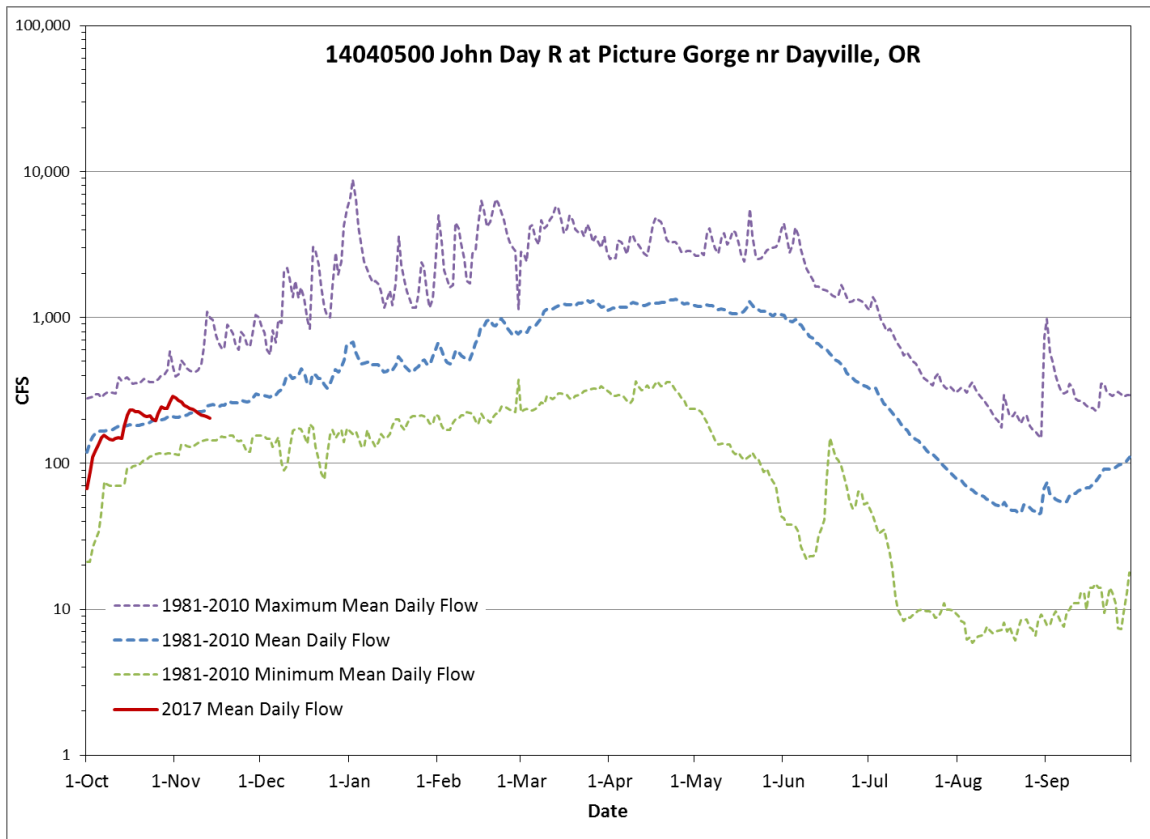
## November Regional Streamflow Conditions



## Streamflow Example - Western Oregon



## Streamflow Example – Eastern Oregon



## Regional Reservoir Storage Conditions

