

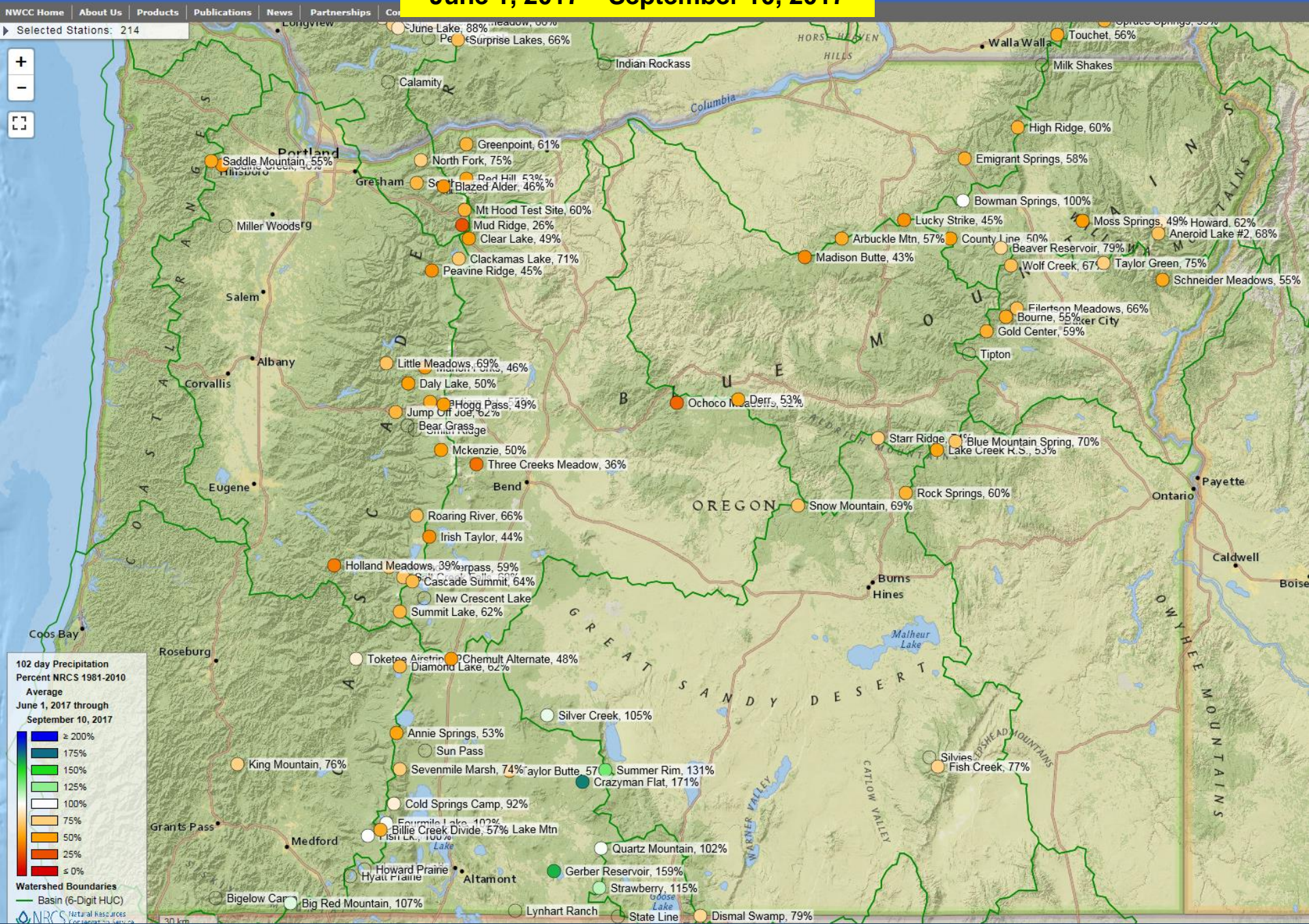
Water Supply Conditions Report
Drought Readiness Council



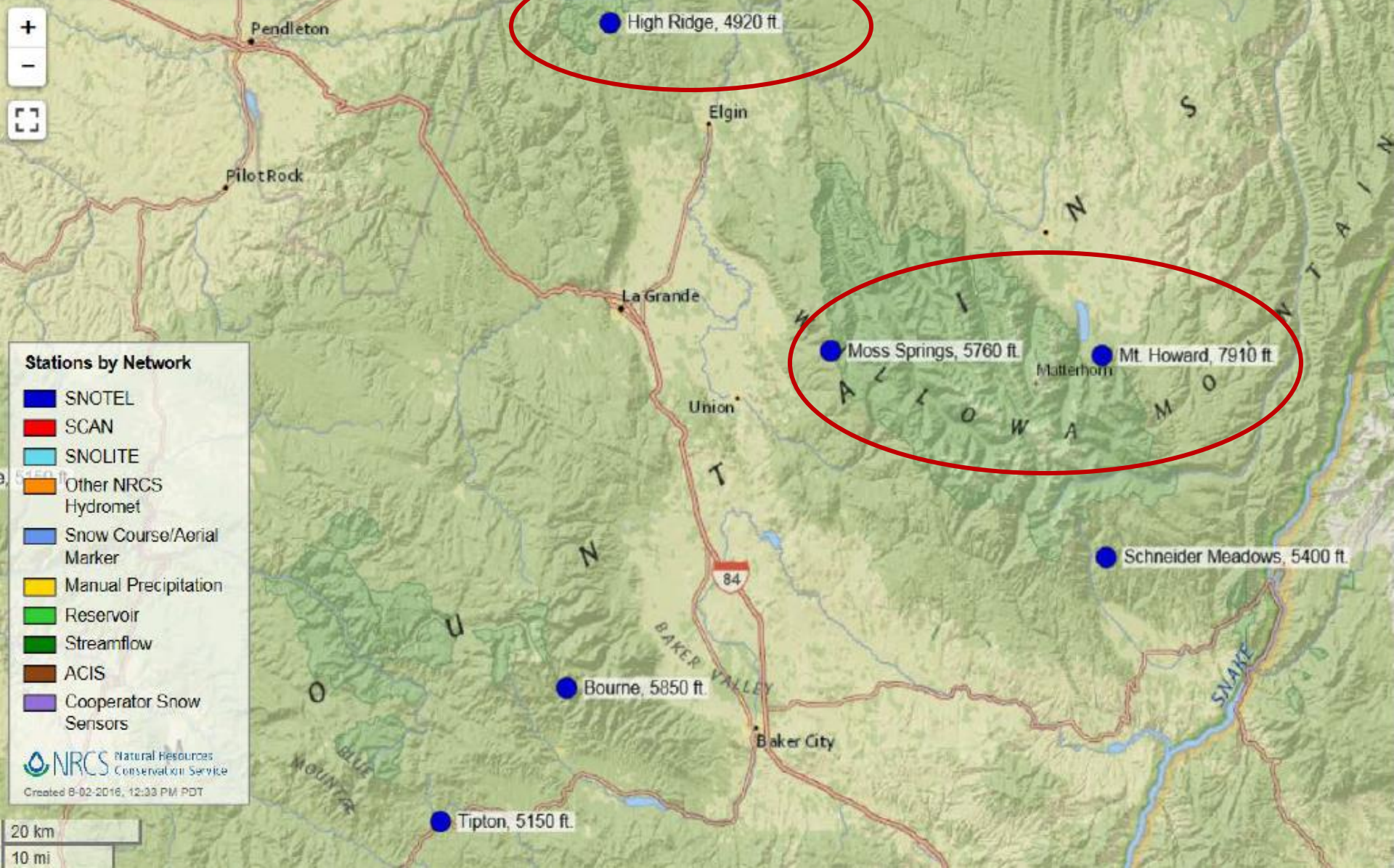
Ken Stahr
Oregon Water Resources
Department
September 14, 2017

SNOTEL Precipitation last 90 days

June 1, 2017 – September 10, 2017



Selected Stations: 431



Stations by Network

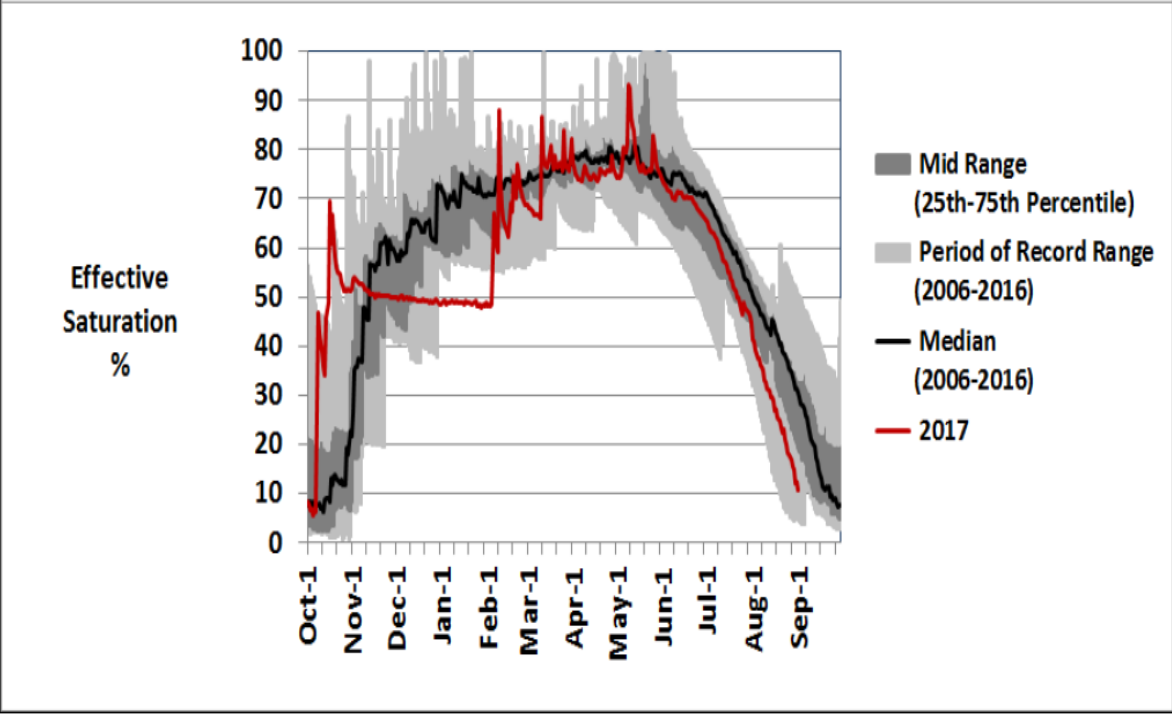
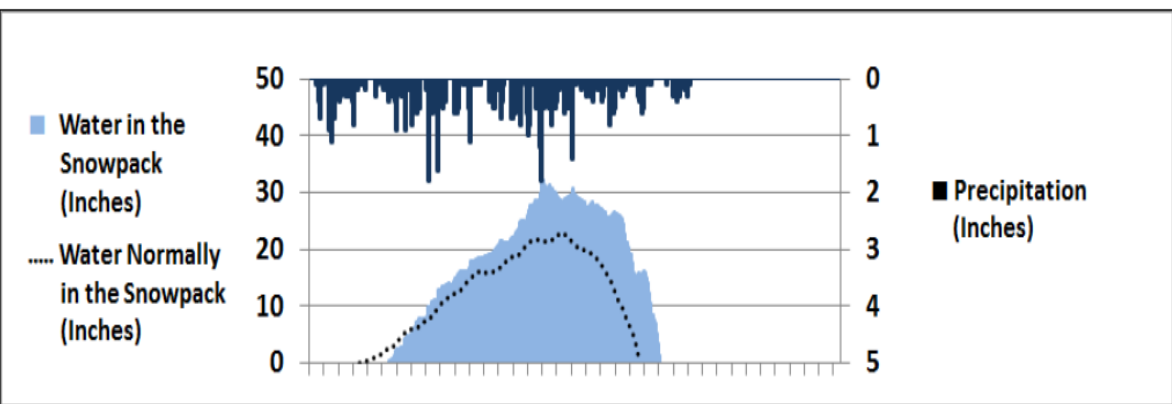
- SNOTEL
- SCAN
- SNOLITE
- Other NRCS Hydromet
- Snow Course/Aerial Marker
- Manual Precipitation
- Reservoir
- Streamflow
- ACIS
- Cooperator Snow Sensors

NRCS Natural Resources Conservation Service
Created 8-02-2016, 12:33 PM PDT

20 km
10 mi

High Ridge, 4920' elevation

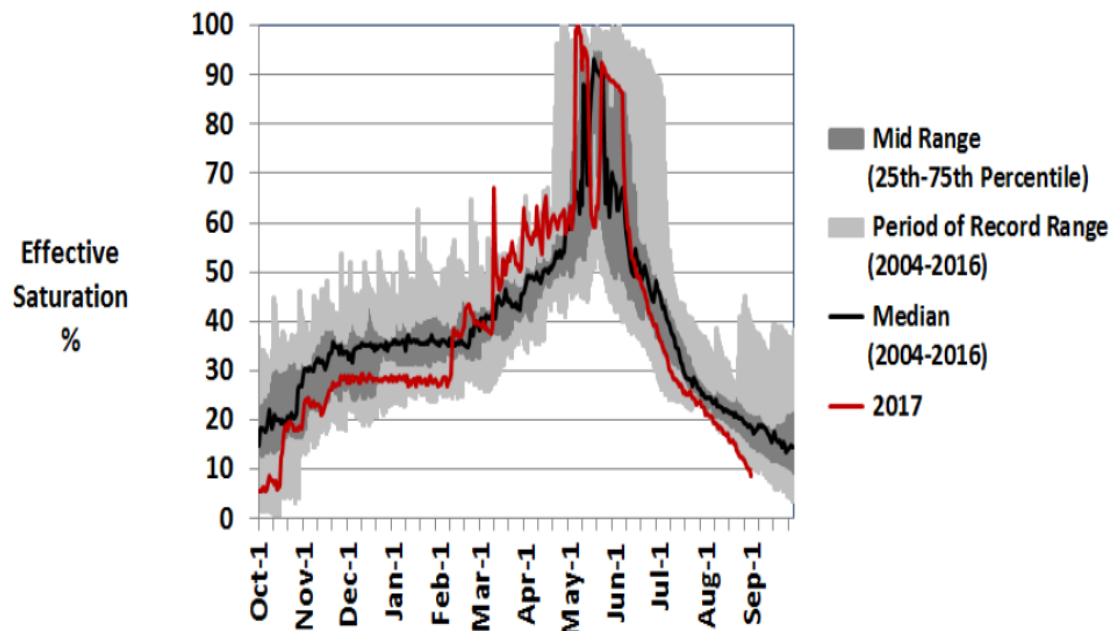
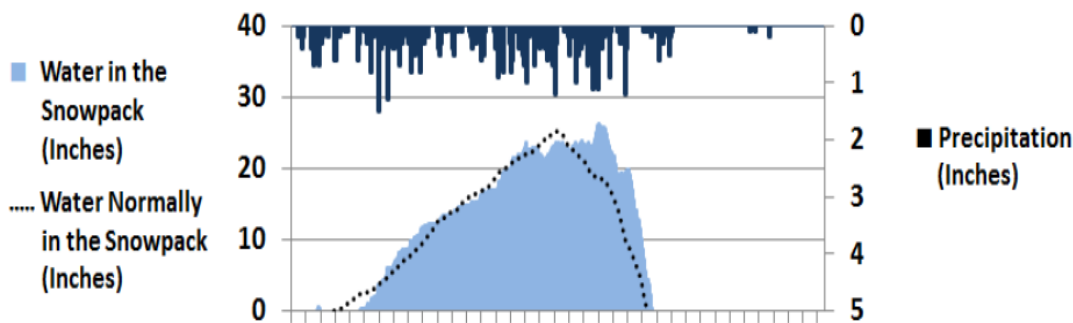
- As of September 1st, the soil moisture is 11% effectively saturated when normally it is 31%.
- Snowpack melted out on May 30th, which is about two weeks later than normal.



Site Characteristics: High Ridge SNOTEL site sits on volcanic soils formed from colluvium derived from ash over colluvium derived from rock. The soil series is Tamara, consisting of very deep, well drained soils formed in a mantle of ash overlying material derived from a mixture of loess and colluvium and residuum from basalt. The site has a slope of 10 percent. Mean annual precipitation is approximately 50 inches, with roughly 47% falling as snow. Vegetation is grand fir, spruce, Douglas fir, western larch, ponderosa pine, lodgepole pine, twinflower, big huckleberry, herbaceous plants, grasses and sedges. Soil moisture probes have been installed here since 2006, at depths of 4, 8 and 20 inches. The silt equation is currently being applied to all probes.

Moss Springs, 5760' elevation

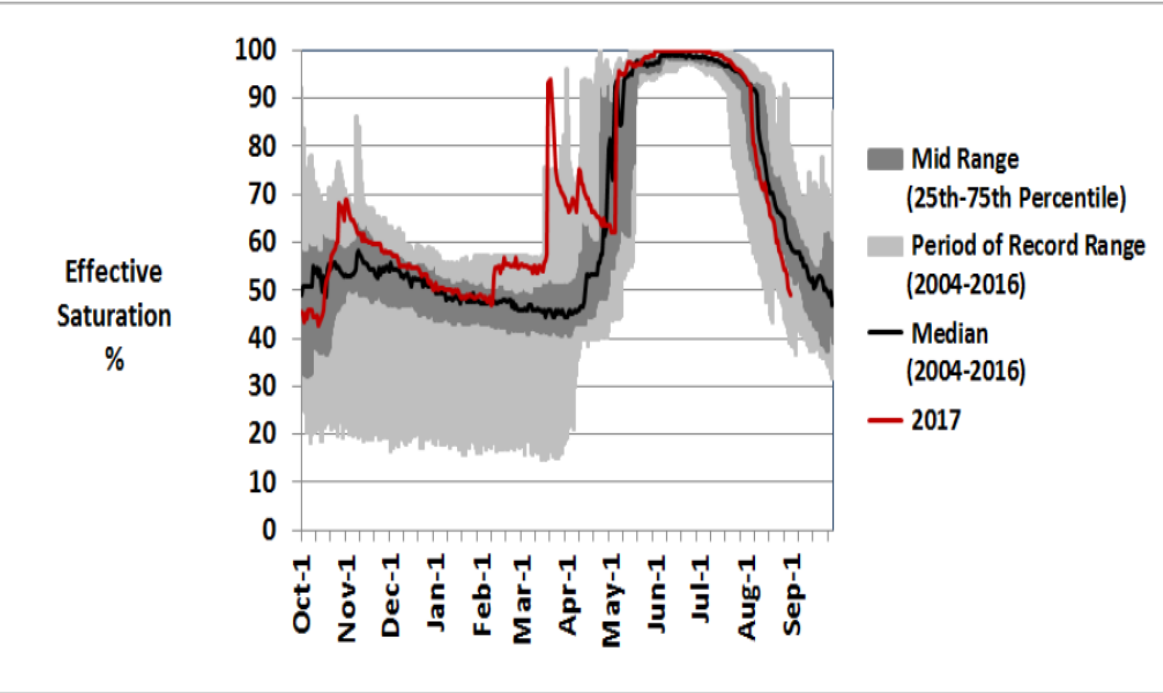
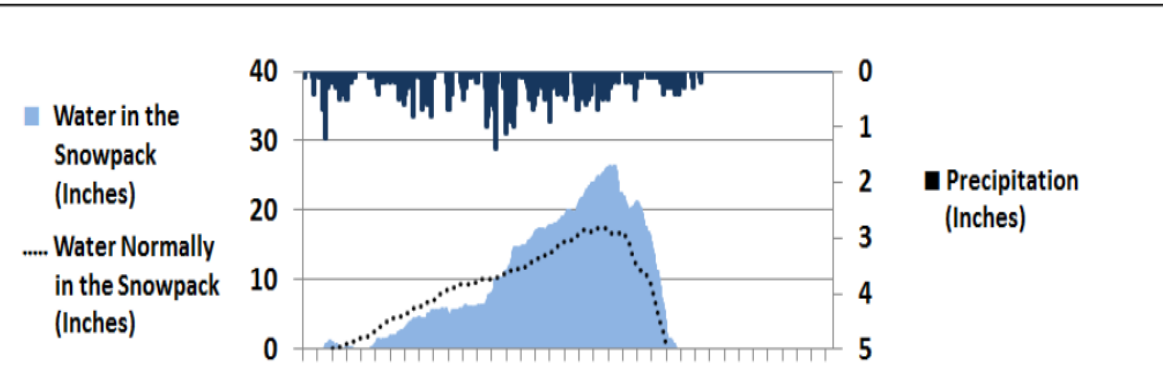
- As of September 1st, the soil moisture is 8.8% effectively saturated, when normally it is 18%.
- Snowpack melted out on June 5th this year, which is about normal for this site.



Site Characteristics: Moss Springs SNOTEL site sits on volcanic soils formed from ash over igneous-basalt. The soil series is Mountemily, which consists of very deep, well drained soils on ridgetops, side slopes and shoulders of mountains. The site has a slope of 10 percent. Mean annual precipitation is approximately 51 inches, with roughly 50% falling as snow. Vegetation is lodgepole pine, subalpine fir, western larch, Engleman spruce, huckleberry, twinflower, Oregon boxwood, prince's pine, sidebells pyrola, herbaceous plants, grasses and sedges. Soil moisture probes have been installed here since 2004, at depths of 2, 4, 20 and 40 inches. The silt equation is currently being applied to all probes.

Mt Howard, 7910' elevation

- As of September 1st, the soil moisture is 49% effectively saturated, when normally it is 59%.
- Snowpack melted out on June 15th this year, about a week later than normal.

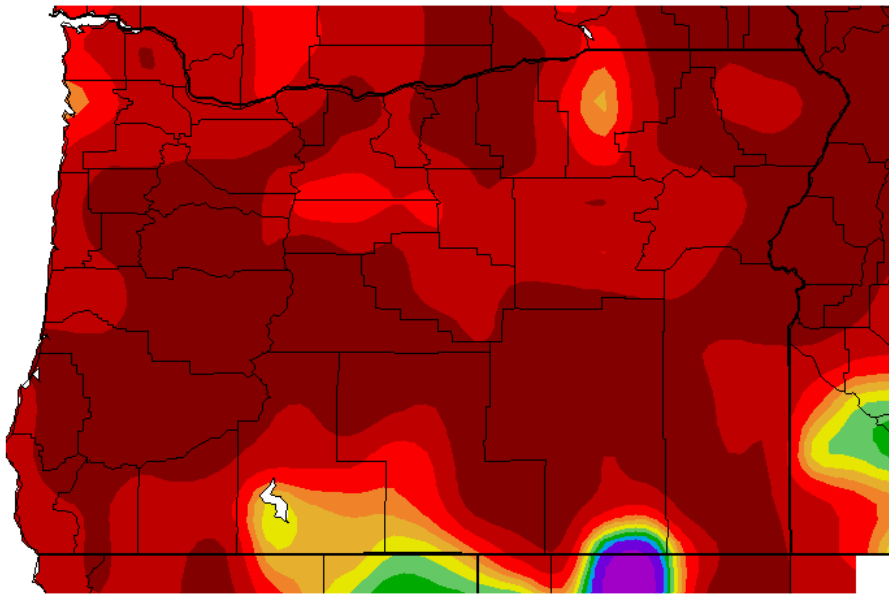


Site Characteristics: Mt. Howard SNOTEL site sits on soils formed in volcanic ash over colluvium from argillite. The soil series is Angelpack which consists of deep and very deep, well drained soils on mountains. The site has a slope of 10 percent. Mean annual precipitation is approximately 44 inches, with roughly 45% falling as snow. Vegetation is subalpine fir, lodgepole pine and western larch with an understory of elk sedge and grouse blueberry. Soil moisture probes have been installed here since 2004, at depths of 2, 4, 8 and 40 inches. The silt equation is currently being applied to all probes.

Seasonal Precipitation

Past 90 Days

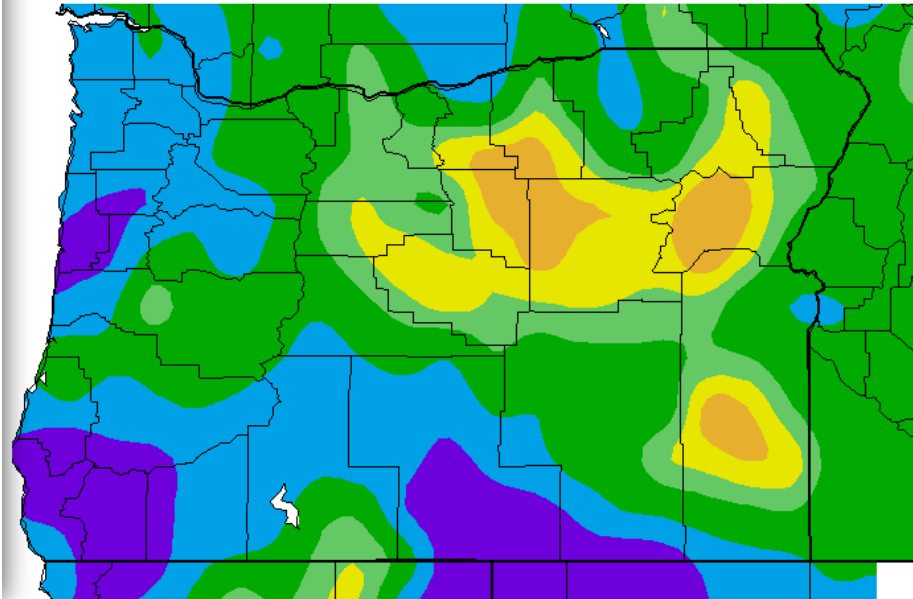
Percent of Average Precipitation (%)
6/13/2017 – 9/10/2017



Generated 9/11/2017 at WRCC using provisional data.
NOAA Regional Climate Centers

Water Year

Percent of Average Precipitation (%)
10/1/2016 – 9/10/2017

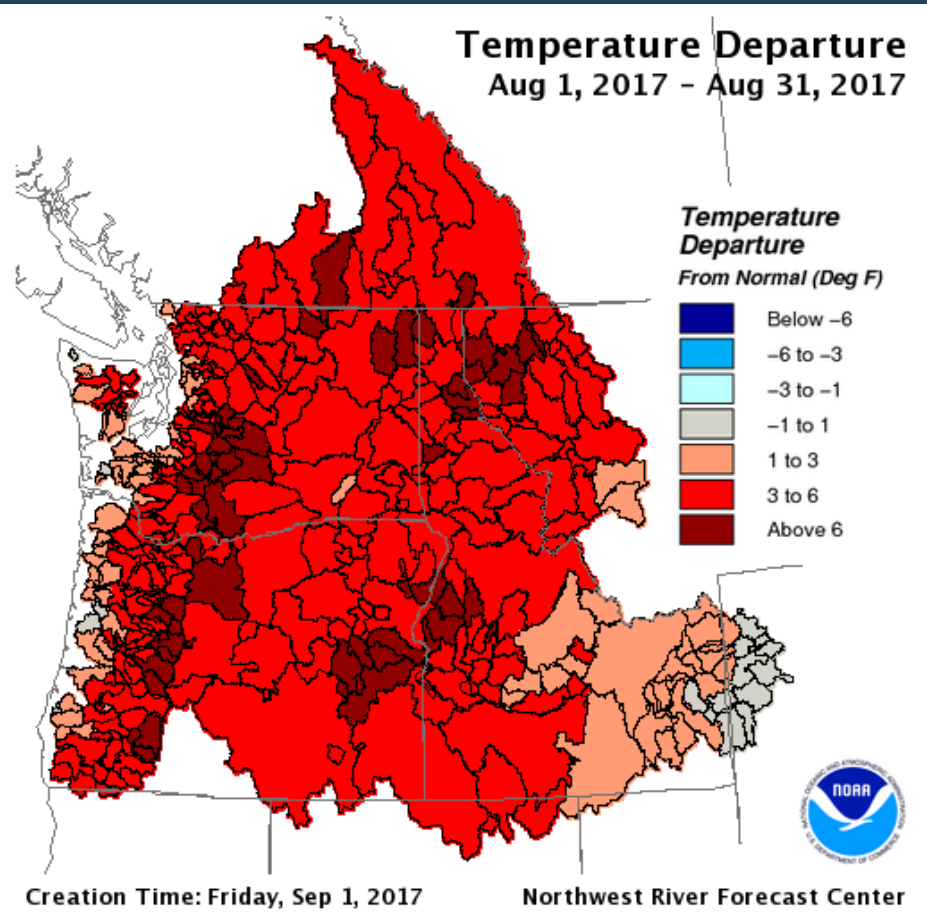


Generated 9/11/2017 at WRCC using provisional data.
NOAA Regional Climate Centers

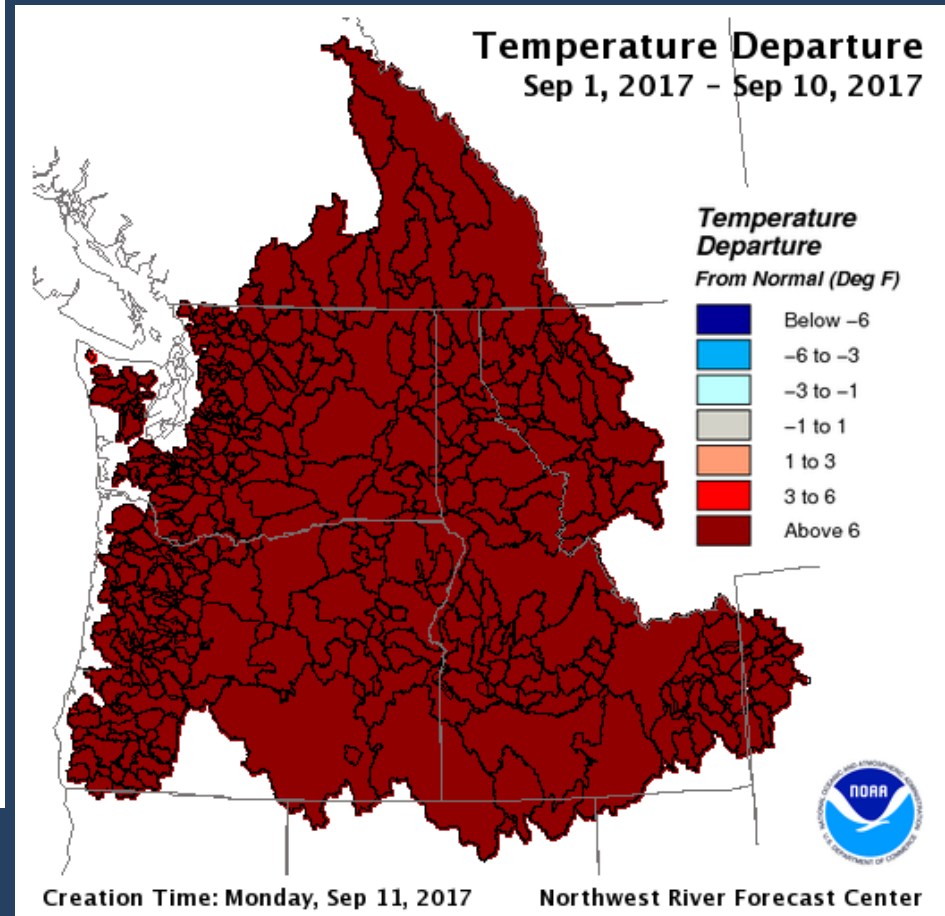
Image sources: www.wrcc.dri.edu

Seasonal Temperatures

August Temperatures in Columbia Basin



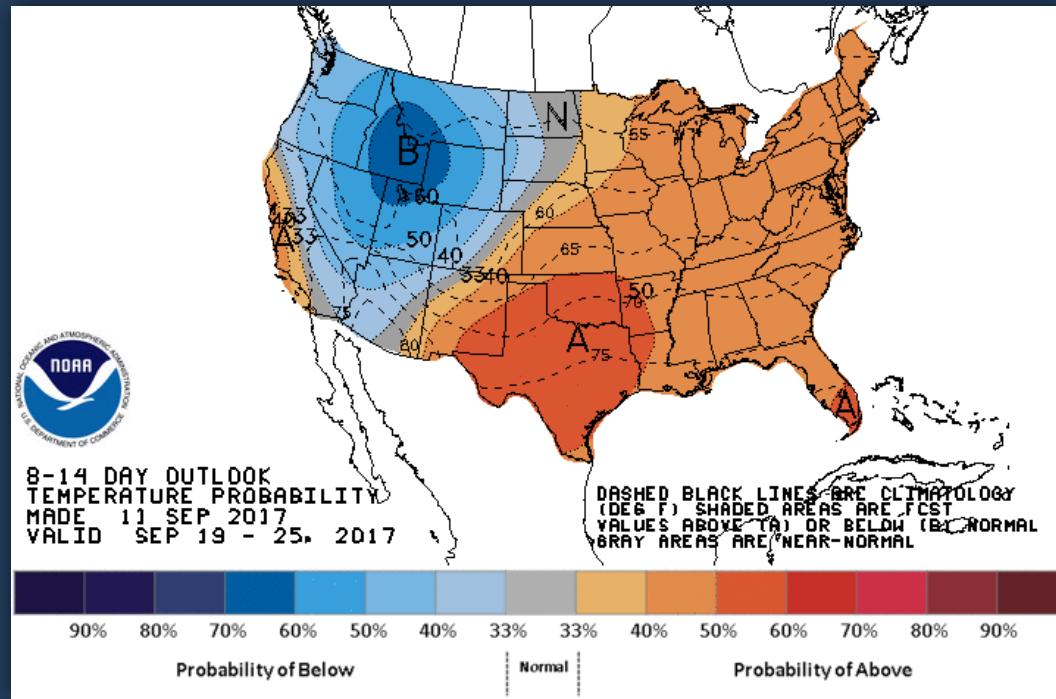
September 1-10, 2017



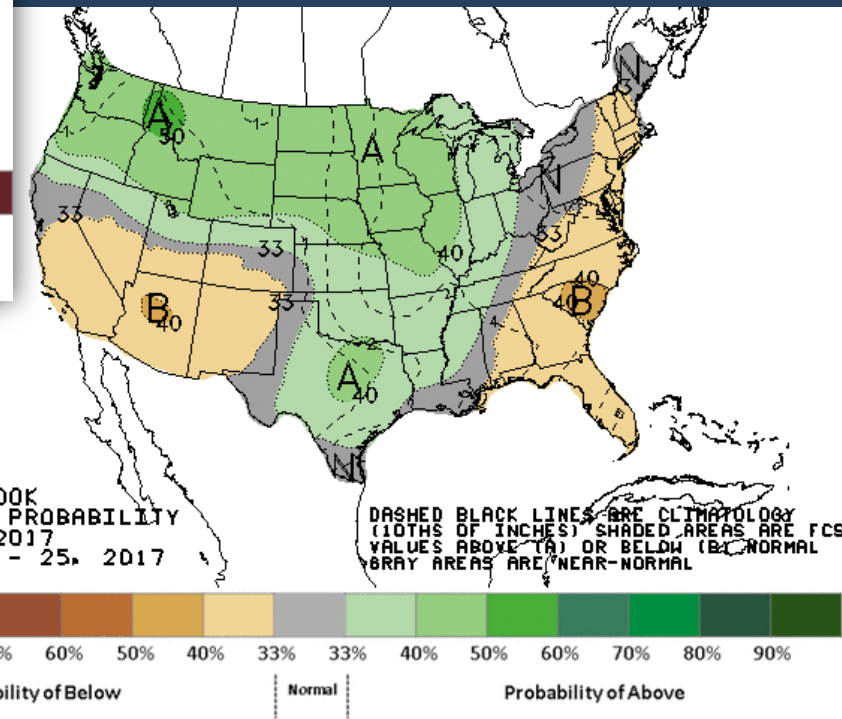
September Outlook

8 - 14 Day Temperature Outlook

Generally wetter and cooler pattern starting September 17th and continuing into late September

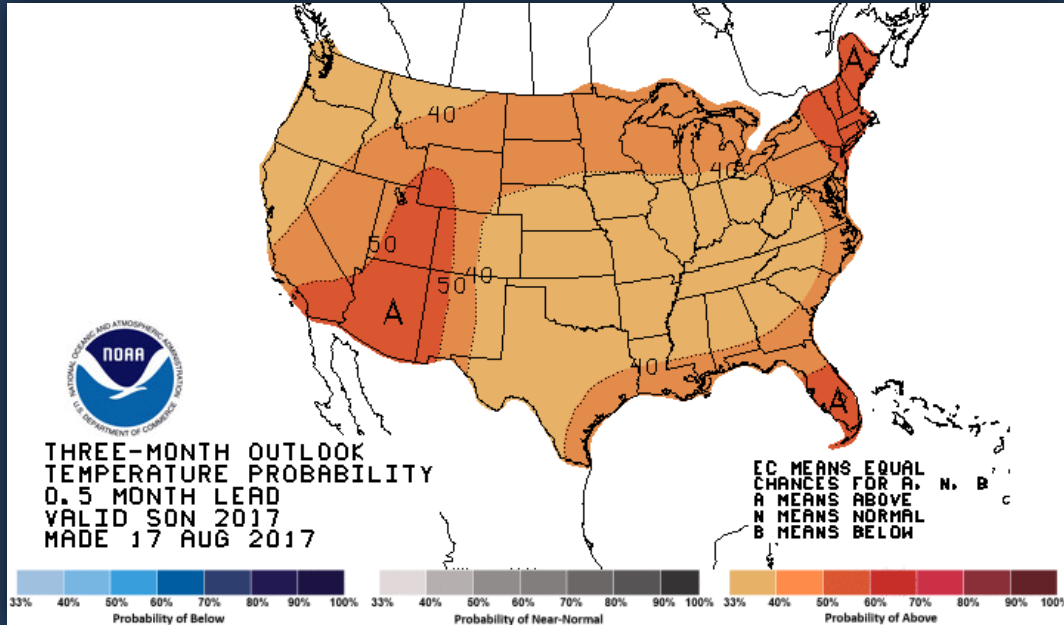


8 - 14 Day Precipitation Outlook

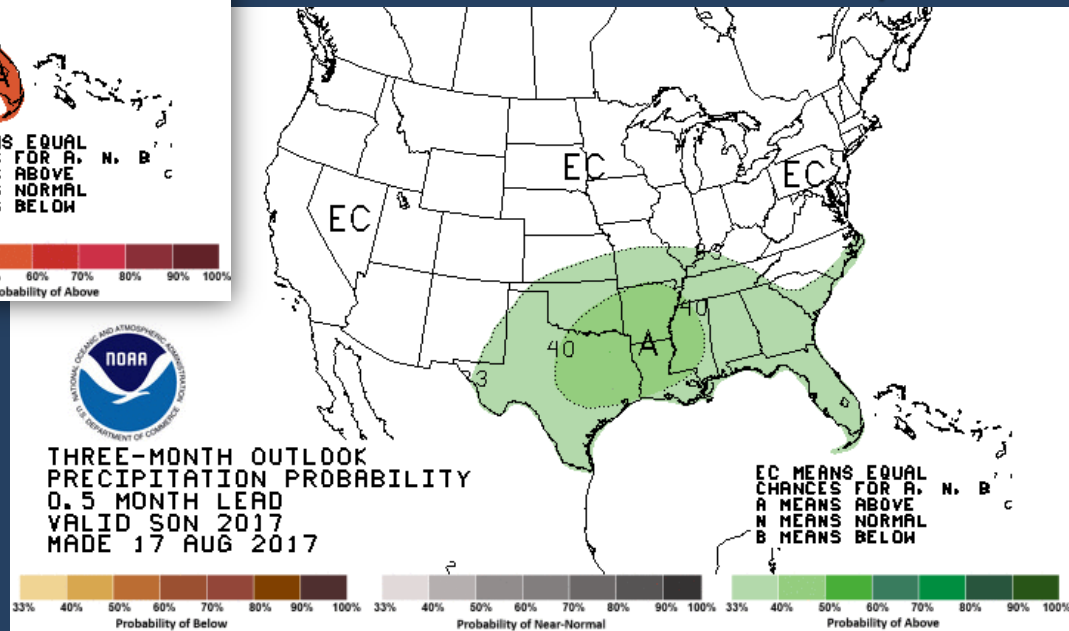


Outlook for September-October-November

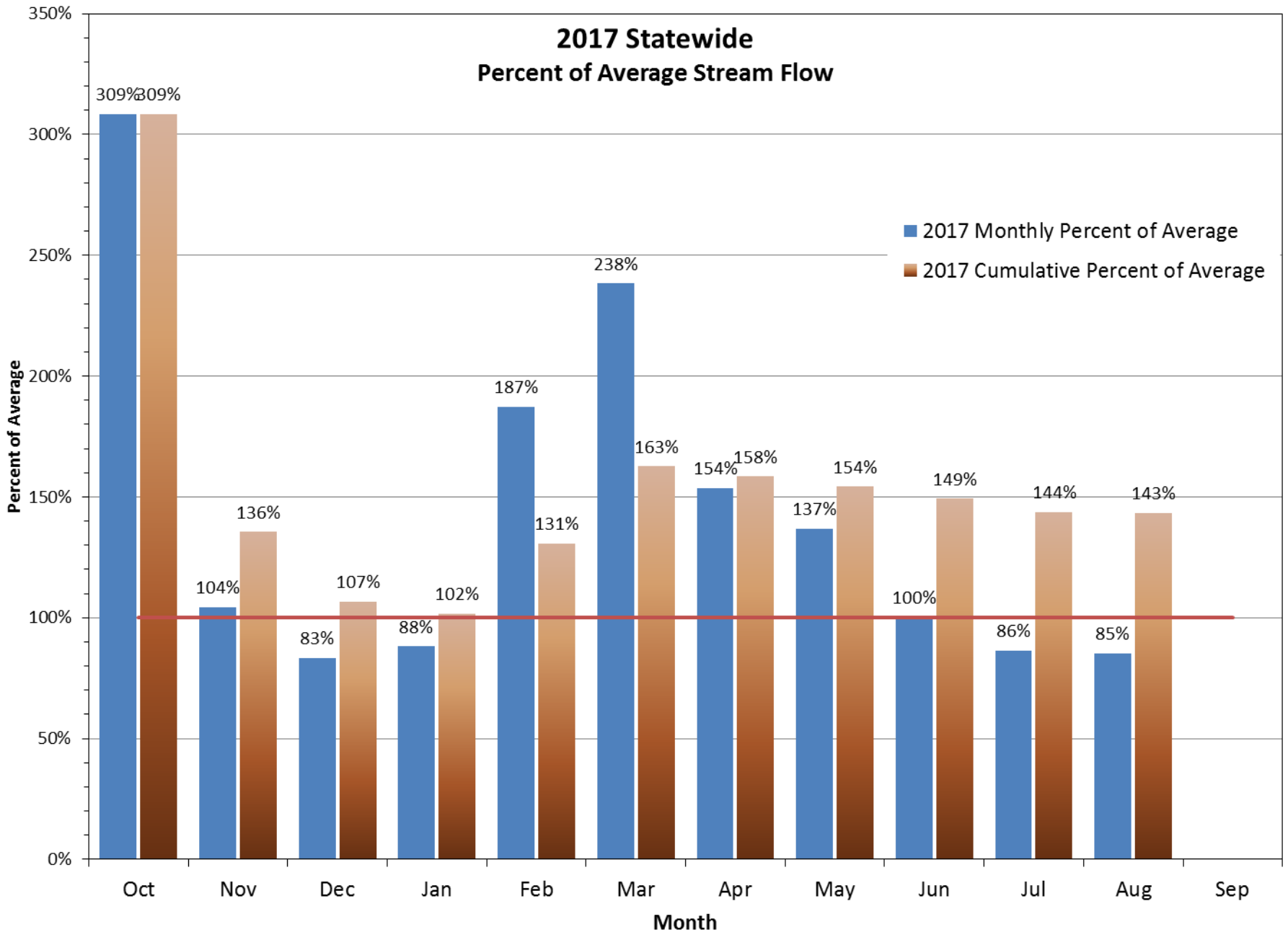
Temperatures



Precipitation



2017 Statewide Percent of Average Stream Flow



Percent of Average Streamflow Month of August, 2017

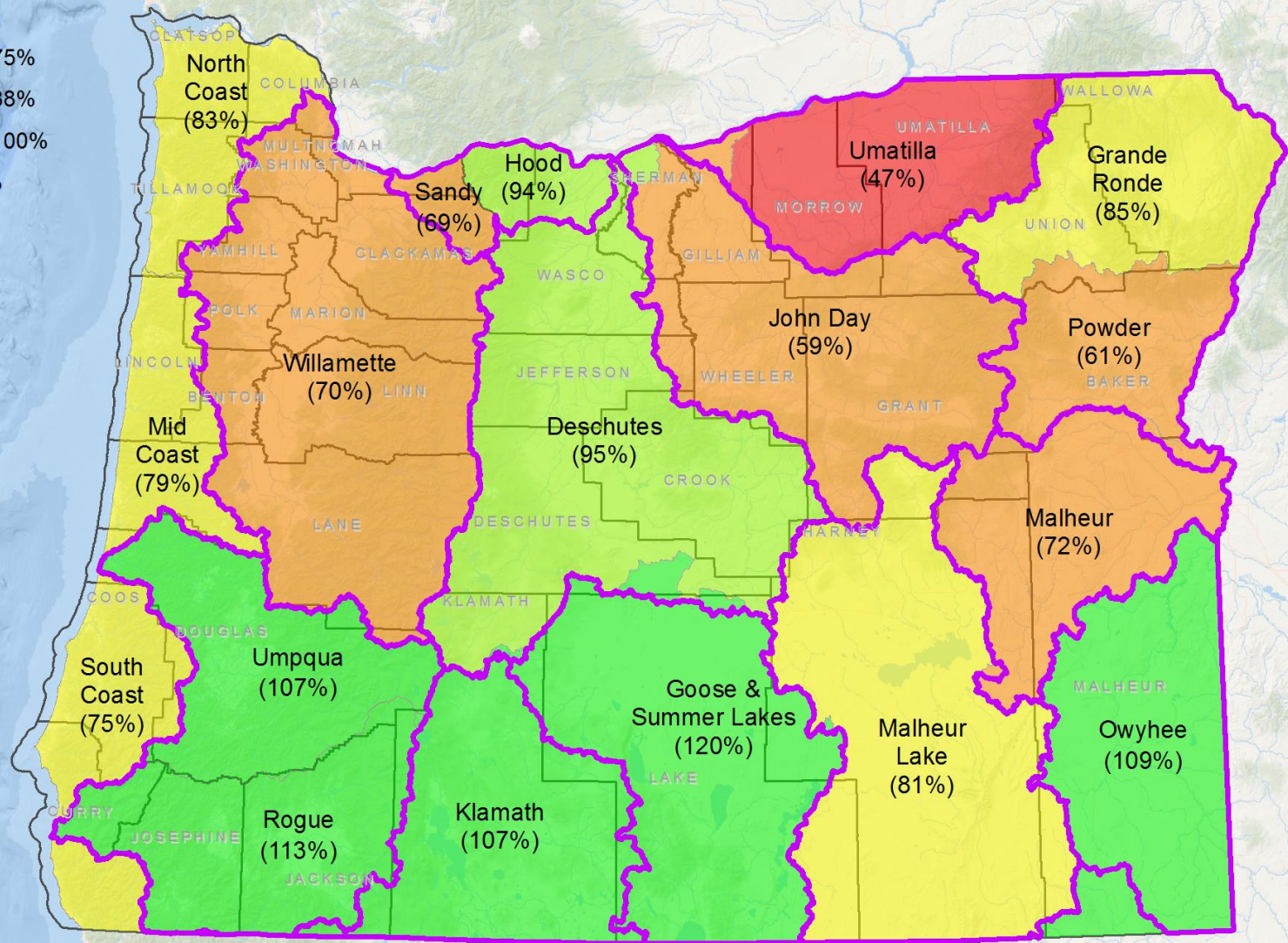
Percent of Average Streamflow

WRD basin

- < 50%
- 50% - 75%
- 76% - 88%
- 89% - 100%
- > 100%

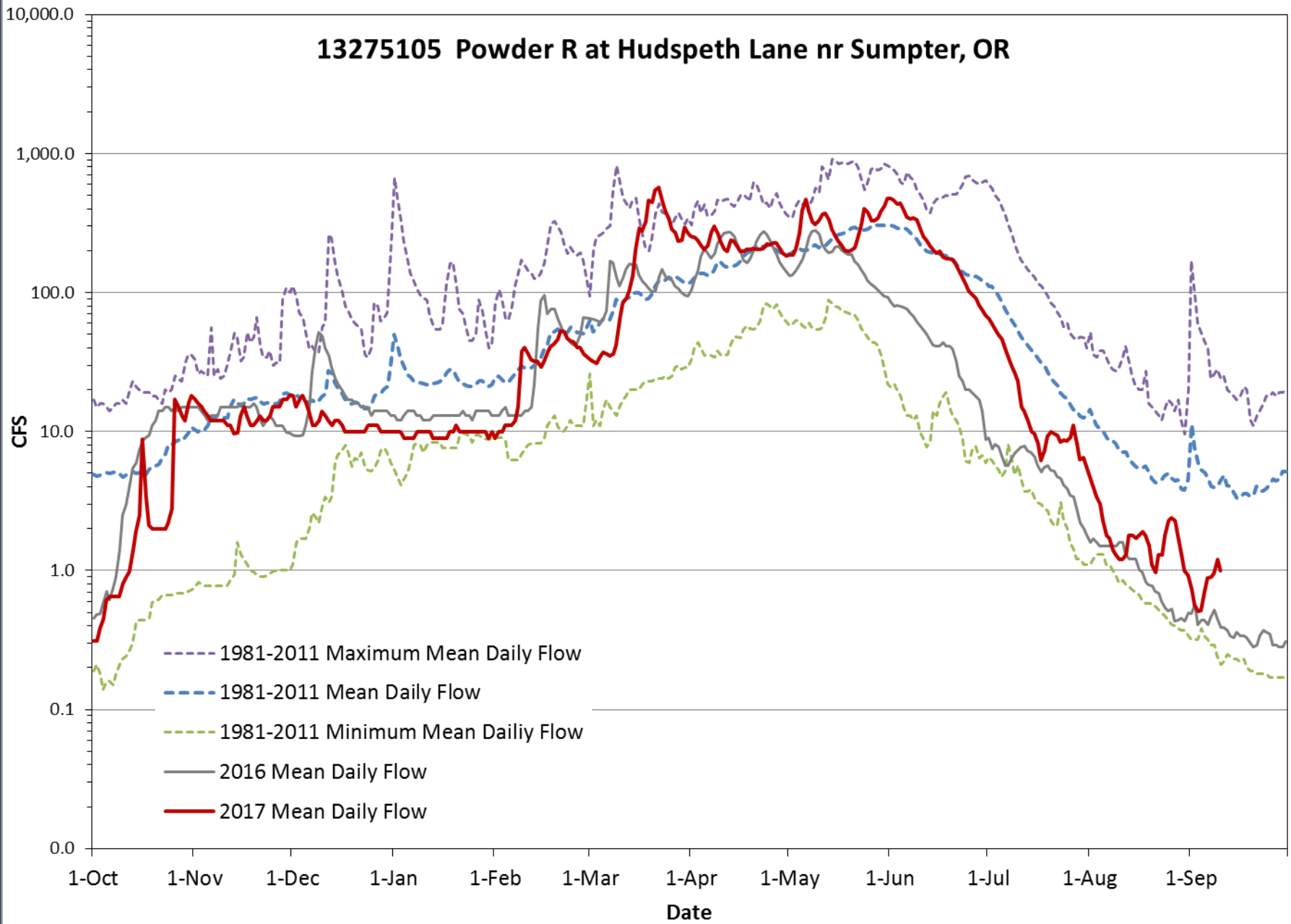
NRCS Basin

-
- County

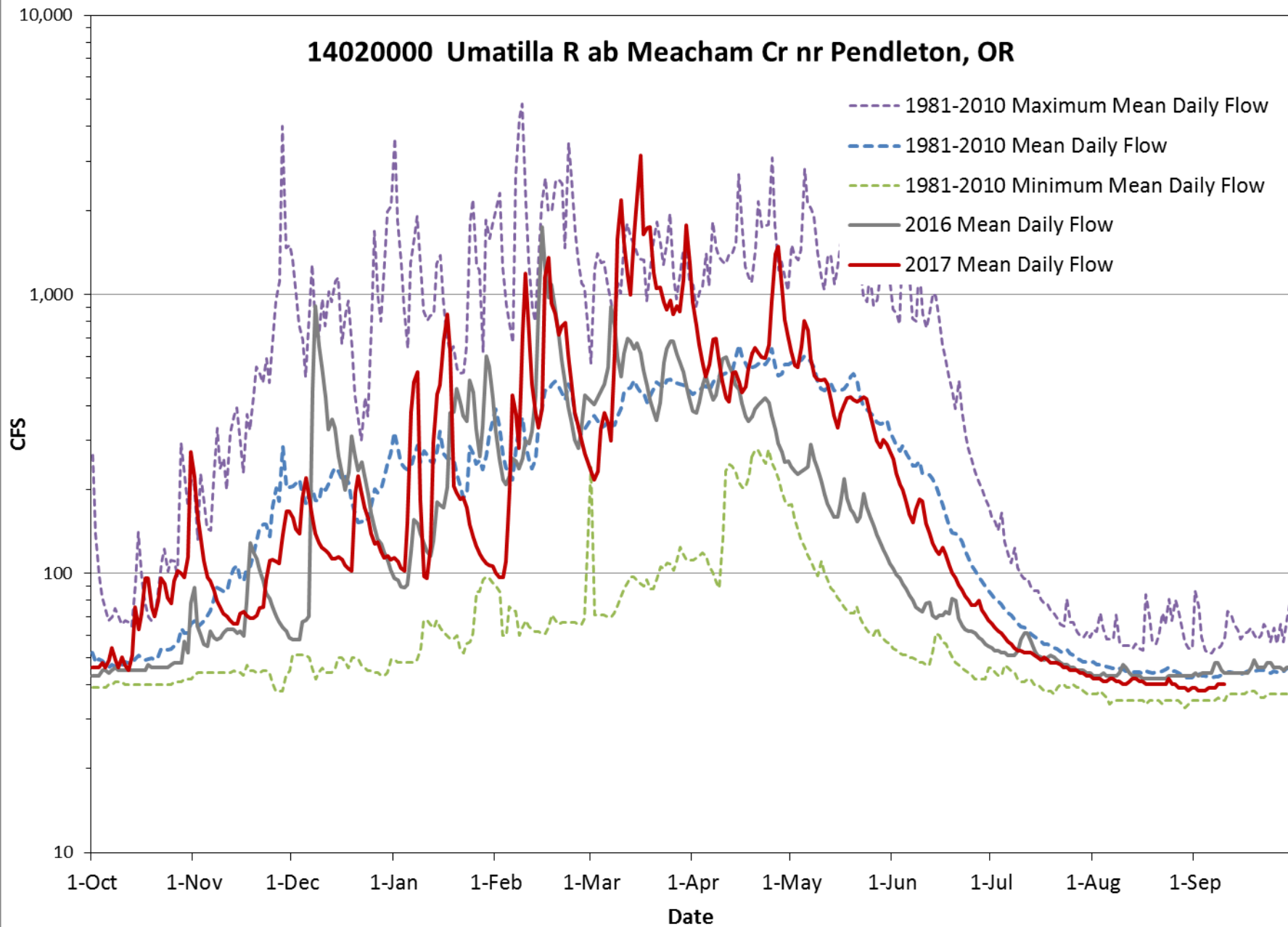


Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.

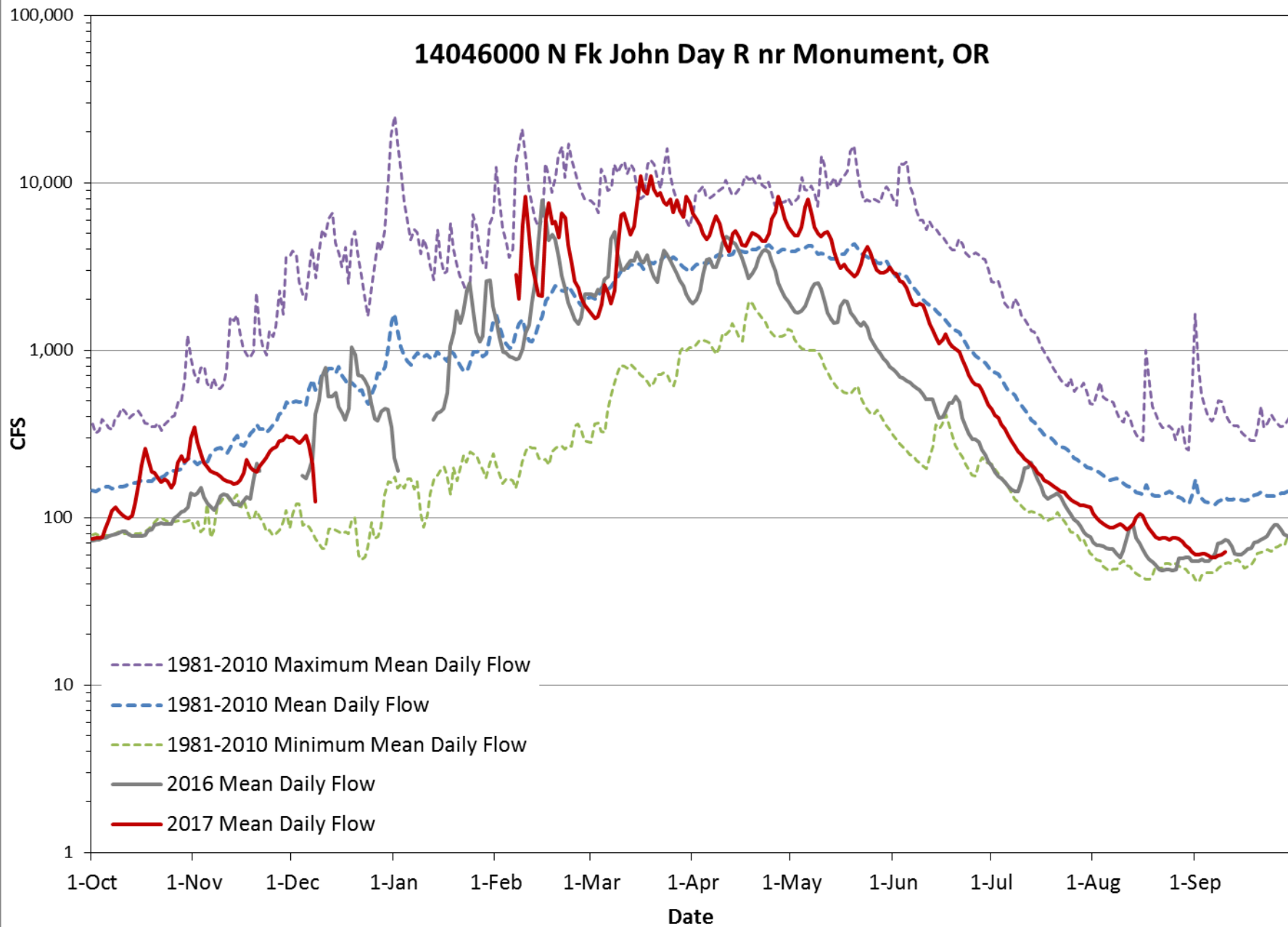
13275105 Powder R at Hudspeth Lane nr Sumpter, OR



14020000 Umatilla R ab Meacham Cr nr Pendleton, OR



14046000 N Fk John Day R nr Monument, OR



Reservoir Storage Summary for the end of August, 2017

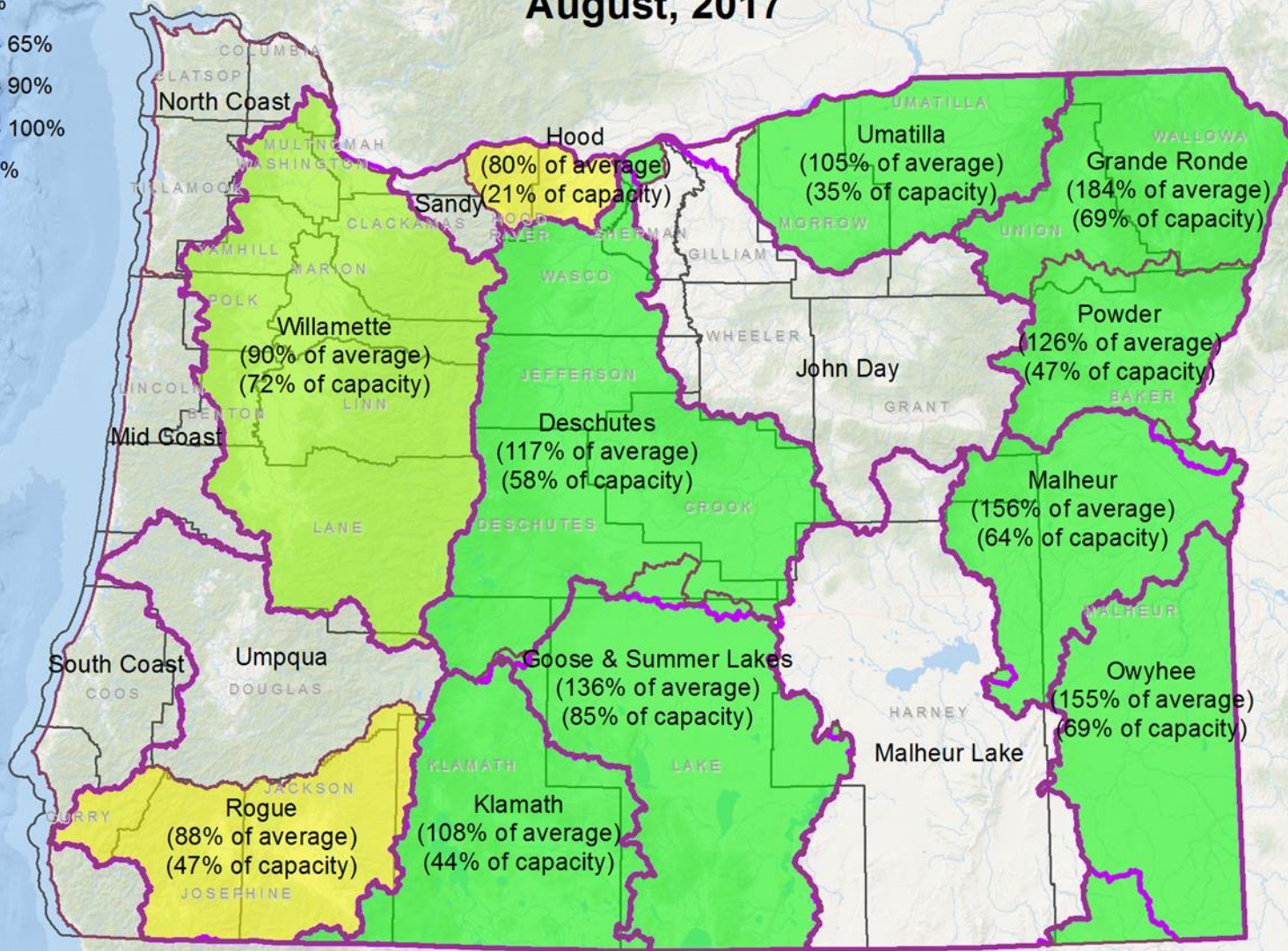
Percent of Average Storage

Current_Average / none

- < 50%
- 50% - 65%
- 66% - 90%
- 91% - 100%
- > 100%

NRCS Basin

County



NRCS Basinwide Summary: September 1, 2017
(averages based on 1981-2010 reference period)

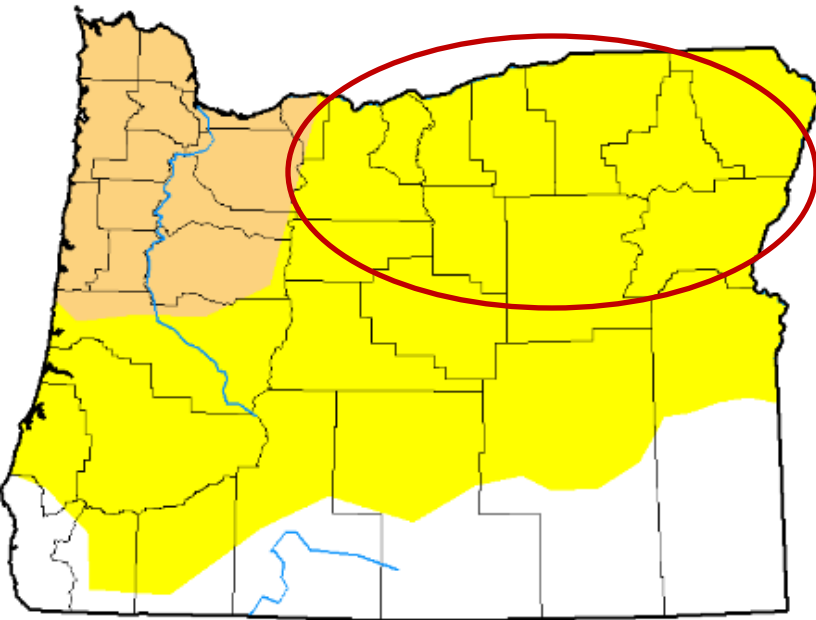
Drought Monitor

U.S. Drought Monitor Oregon

September 5, 2017
(Released Thursday September 7, 2017)
Valid 8 a.m. EDT

Statistics type: Traditional Percent Area

Export table: [PNG](#) [CSV](#) [XLS](#)



Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current 2017-09-05	22.33	77.67	13.50	0.00	0.00	0.00
Last Week 2017-08-29	22.33	77.67	0.00	0.00	0.00	0.00
3 Months Ago 2017-06-06	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 2016-12-27	65.31	34.69	5.29	0.00	0.00	0.00
Start of Water Year 2016-09-27	0.00	100.00	50.59	12.30	0.00	0.00
One Year Ago 2016-09-06	0.00	100.00	50.21	12.03	0.00	0.00

Estimated Population in Drought Areas: **2,534,518**

[View More Statistics](#)

Intensity:

- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

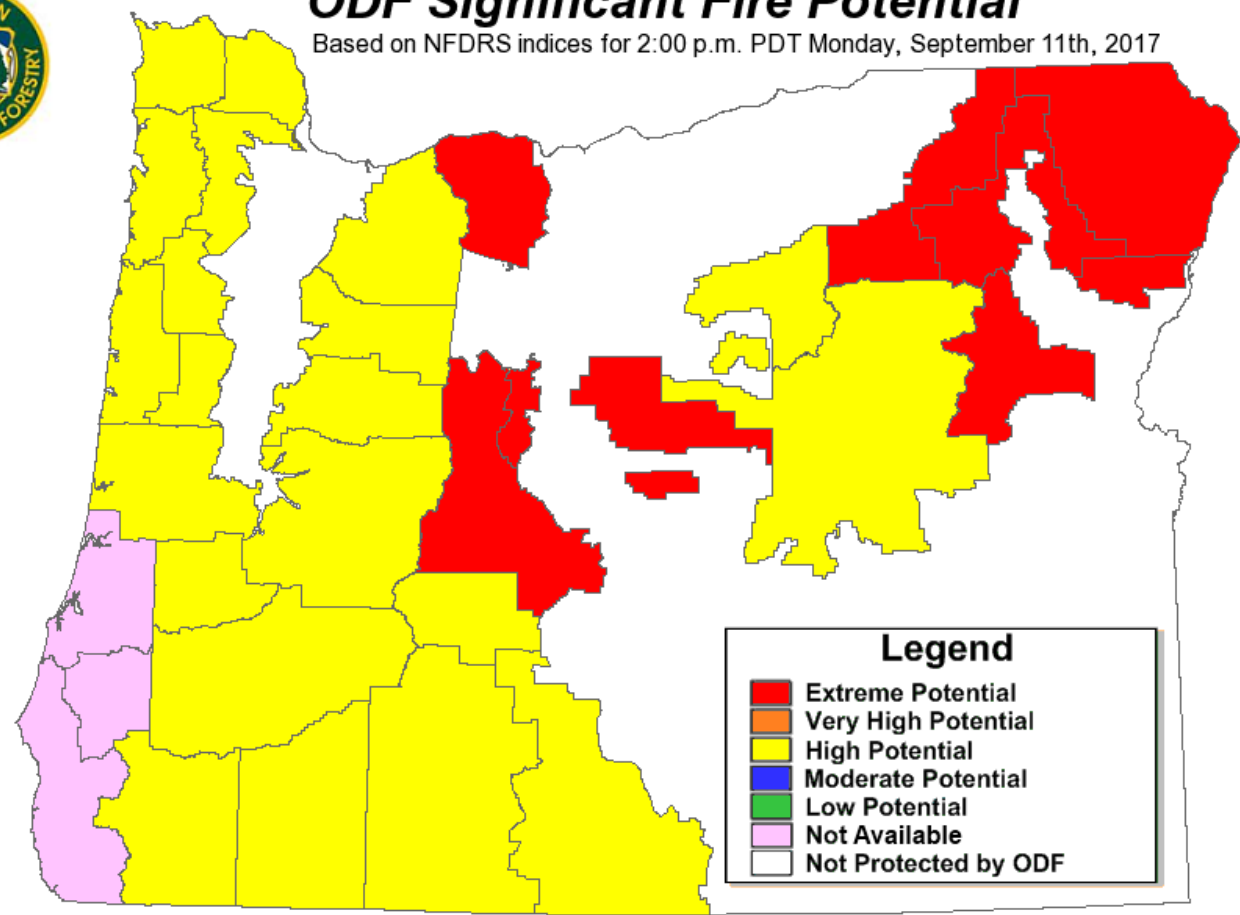


WSAC Sig Fire Potential



ODF Significant Fire Potential

Based on NFDRS indices for 2:00 p.m. PDT Monday, September 11th, 2017



Updated: 8:33 a.m. PDT Tuesday, September 12th, 2017 (map does not display or represent Fire Danger or Regulated Use Restrictions).

Significant Fire Potential Map

[Map Explanation](#)
[Map Calculation File](#)

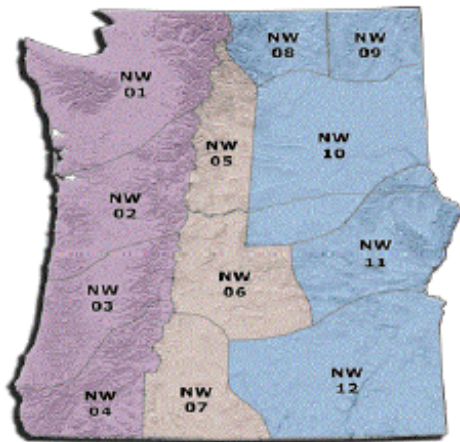


WSAC Forecast Fire Potential



Pacific Northwest 7 Day Significant Fire Potential

Tuesday, September 12, 2017



Predictive Service		7 Day Significant Fire Potential							
Area	Area	ytd	tdy	Wed	Thu	Fri	Sat	Sun	Mon
NW01									
NW02									
NW03									
NW04									
NW05									
NW06									
NW07									
NW08									
NW09									
NW10									
NW11									
NW12									

Legend

Fire Environment (FEN) 4 levels

- Minimal** - The Overall Fire Environment suggests a very low risk for Large fires (less than 1% chance)
- Normal** - The Overall Fire Environment suggests a normal risk for large fires (1 - 4% chance)
- Elevated** - The Overall Fire Environment suggests a moderately high risk for large fires (5 - 19% chance)
- High Risk** - The risk for large fire(s) is very high ($\geq 20\%$)
Triggers: 1. **L** (Significant Lightning)
2. **BEN** (Critical Burn Environment)

The assessment of the overall fire environment considers multiple factors including weather, lightning amount and fuel dryness. Large Fire probabilities are derived objectively via statistical methods. **High Risk** levels ($\geq 20\%$ probability of a large fire) are almost always due to significant lightning as burning conditions alone rarely result in a large fire probability much above about 10%.

Fire Potential: Warm and dry conditions will prevail over Eastern Washington today. Elsewhere, a cold front will bring increasing humidity, clouds and chances for showers through the day.

There is a threat for scattered lightning, mainly over southern and eastern Oregon today into tonight. The lightning will bring a potential for new ignitions and moderate initial attack with a low-end elevated risk for large new fires.

The frontal passage will bring a transition to a gusty northwest winds today and tonight. Although the arriving air mass will be much cooler, humidity values will remain on the low side for areas east of the Cascades. This combination of dry, gusty will promote an increase in fire activity, mainly for eastern Washington winds tonight through Thursday.

Pay close attention to NWS fire weather planning forecasts, spot forecasts, and IMET forecasts for the weather details in your area.

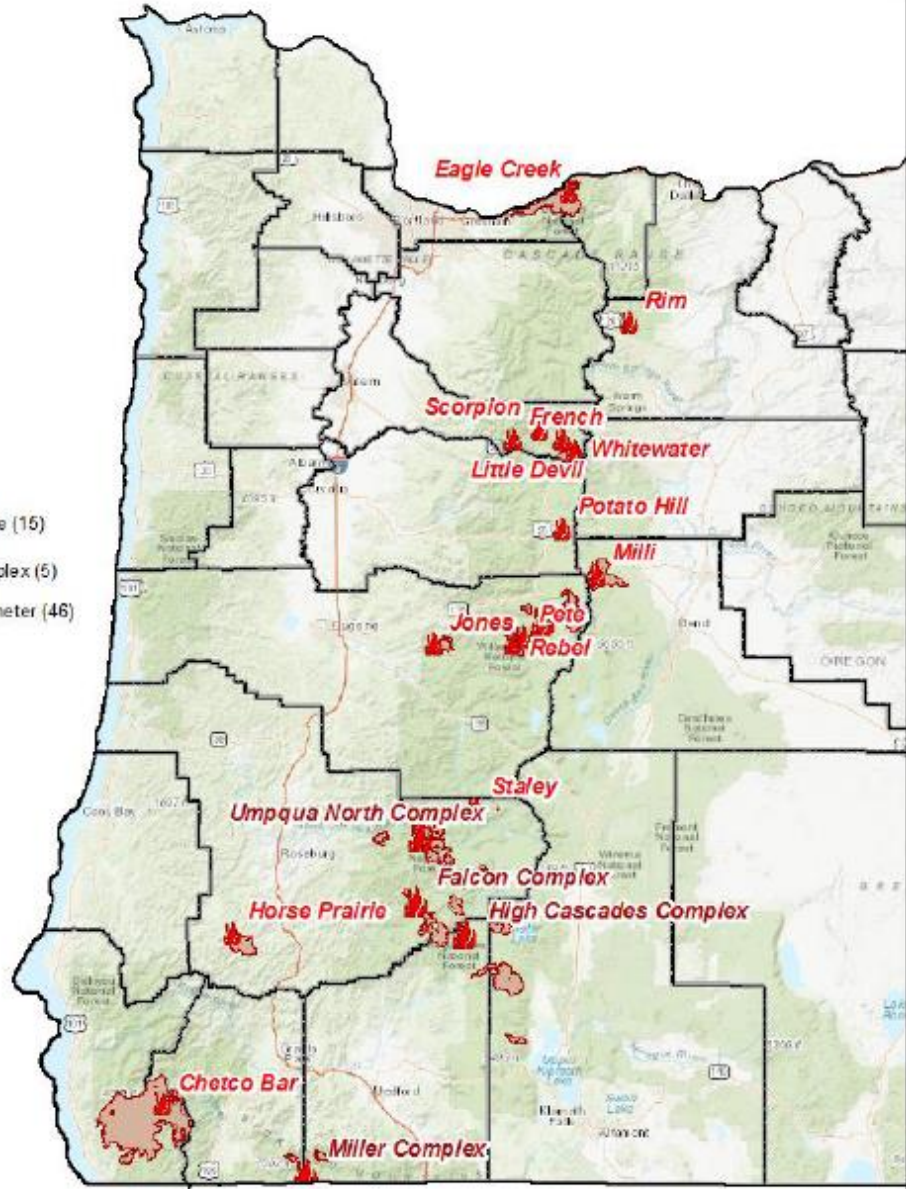
Please call NWCC Predictive Services (503) 808-2737 with any questions.

Preparedness Level:

Northwest: 5
National: 5

- Amanda Graning

-  Active Wildfire (15)
-  Wildfire Complex (5)
-  Wildfire Perimeter (46)



ARP 9/11/17

Wildfire Locations - OERS #2017-2278 Situation Report 05

This product is for informational purposes, and may not be suitable for legal, engineering or surveying purposes. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user.

Thank You