an overview of the 2012-2013 drought in eastern OR and southern ID

Kathie Dello

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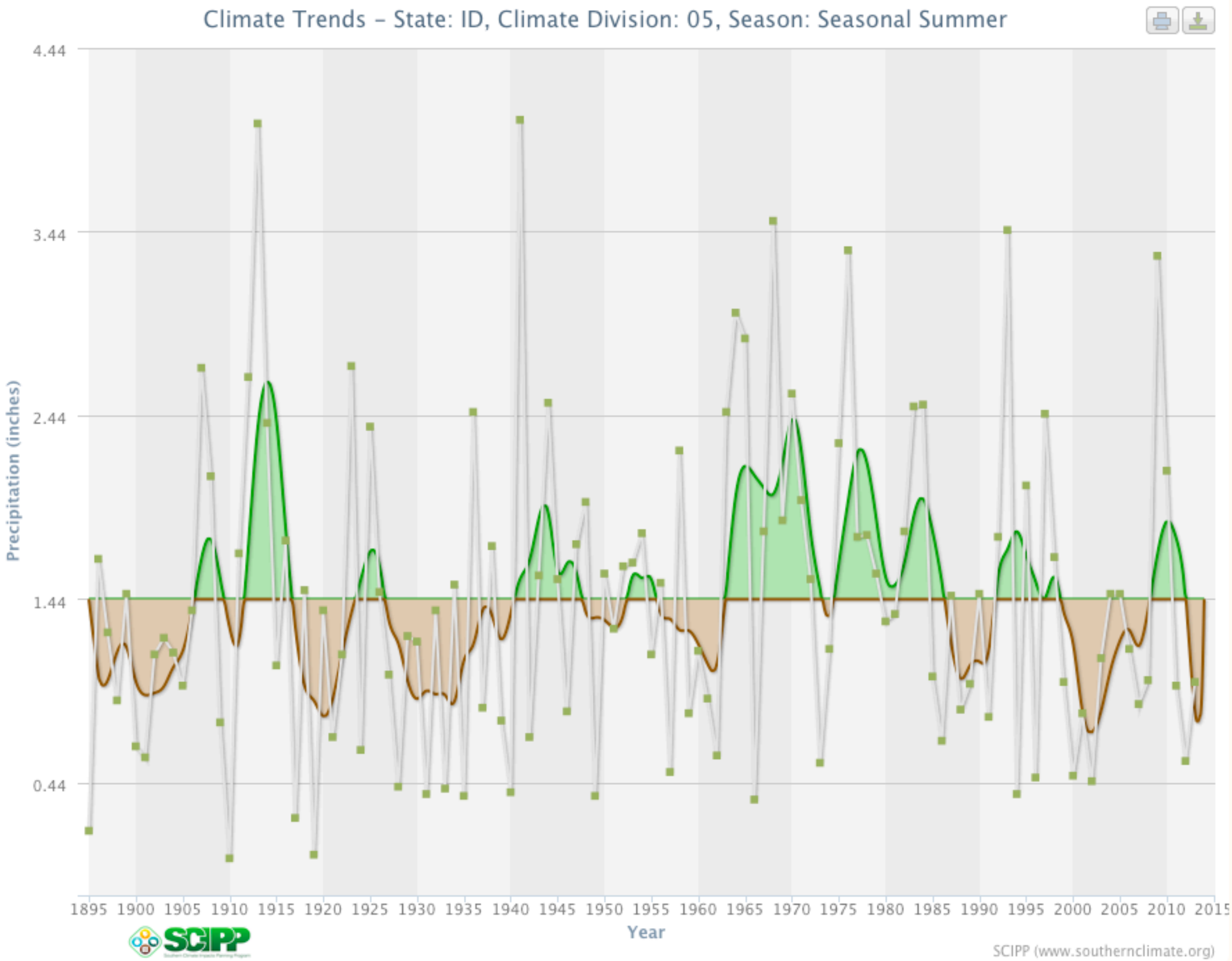
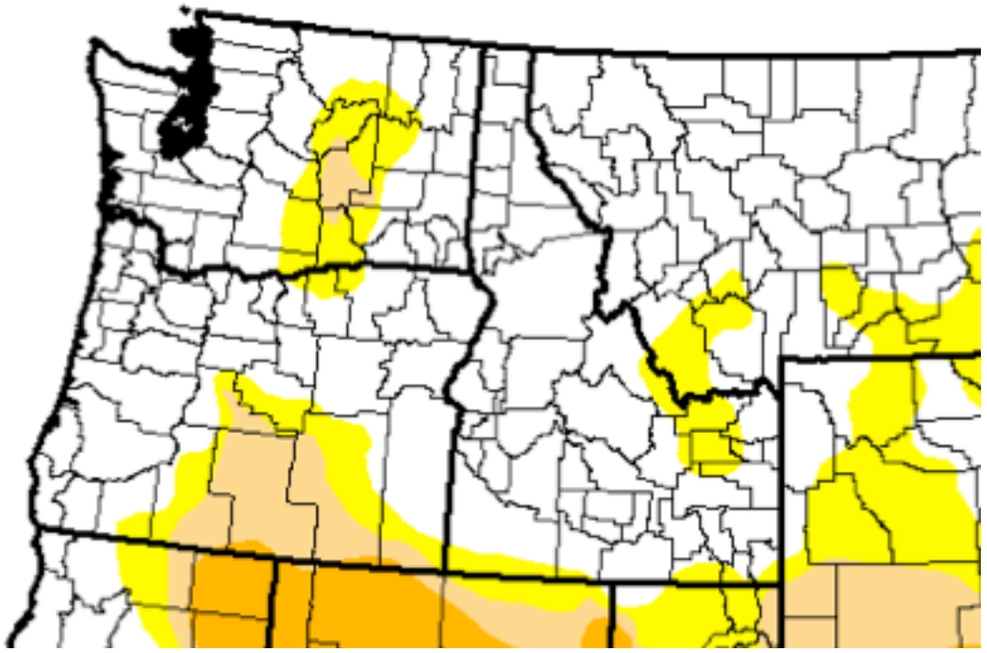
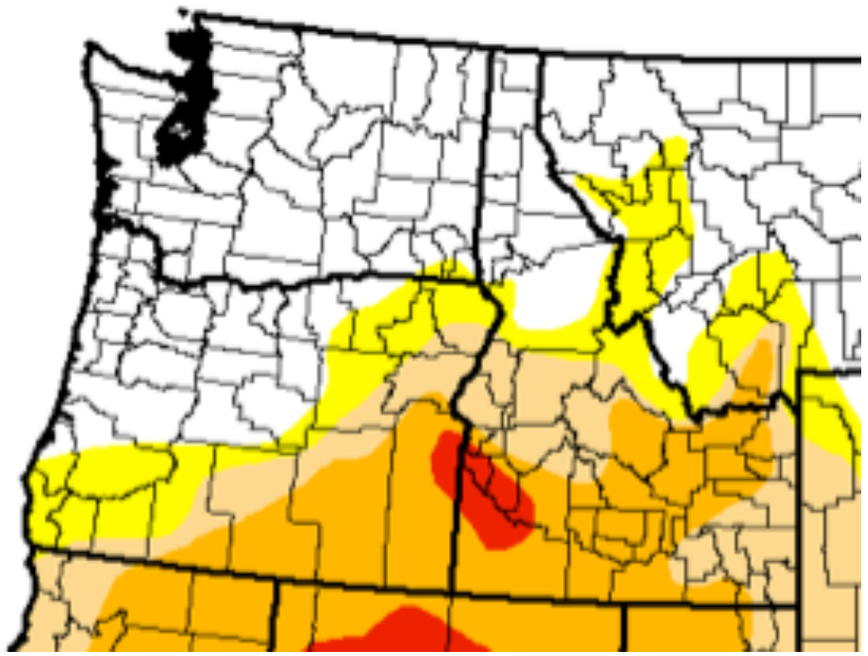
Oregon State University
Corvallis, OR


Climate Trends – State: ID, Climate Division: 05, Season: Seasonal Summer
4.44
3.44
2.44
1.44
0.44
Precipitation (inches)
1895 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015
Year
SCIPP
SCIPP (www.southernclimate.org)

United States Drought Monitor



6/5/2012

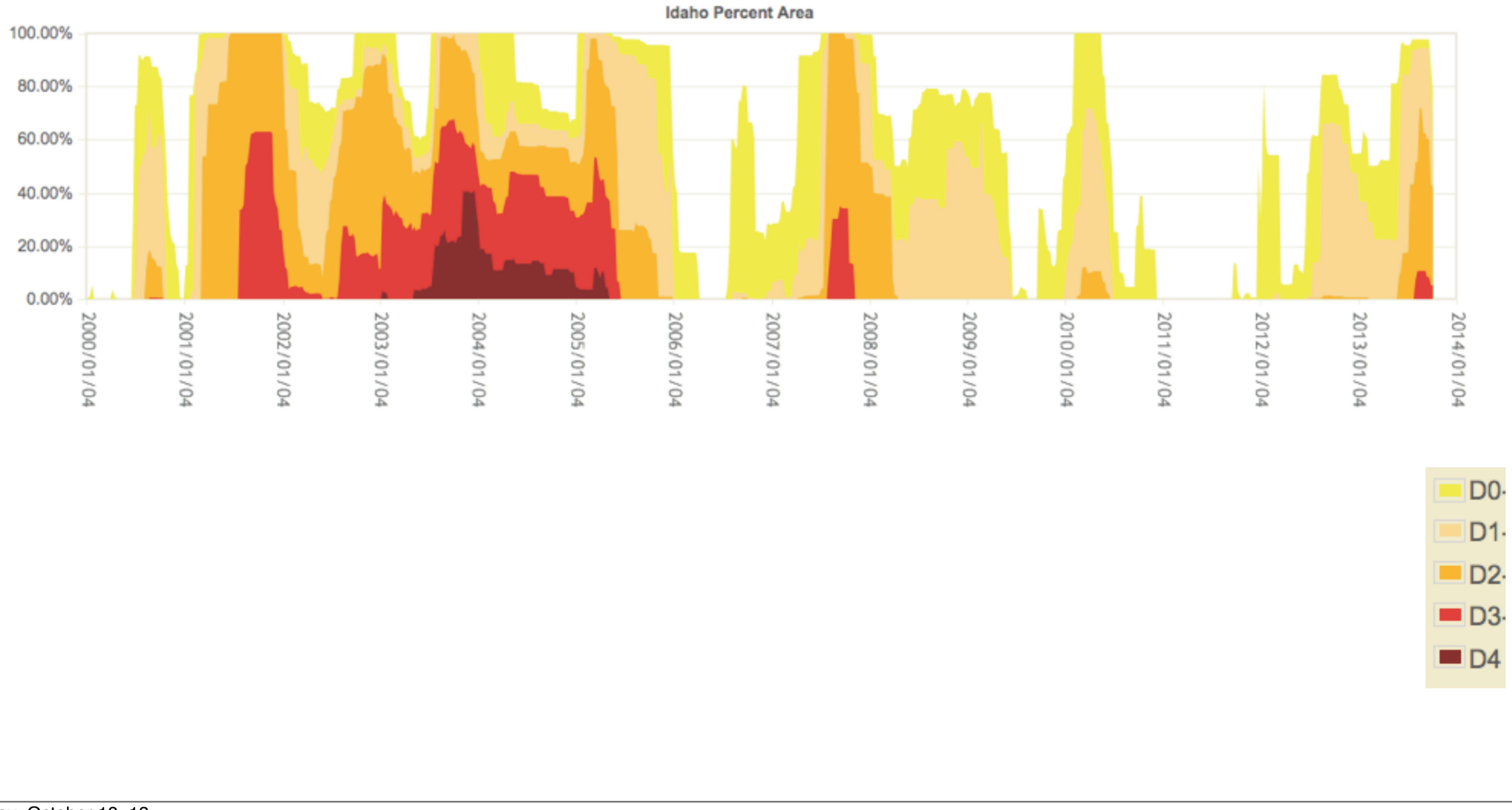


10/17/2013

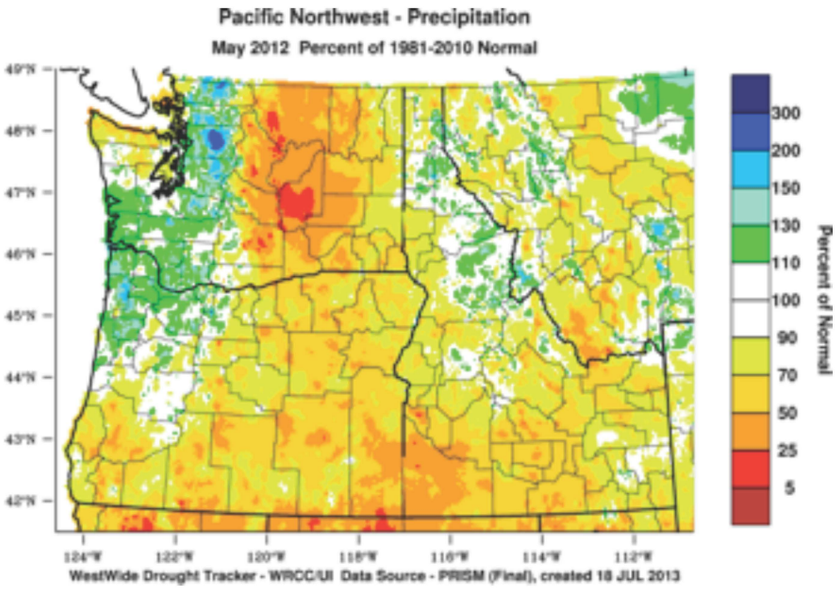
Intensity:

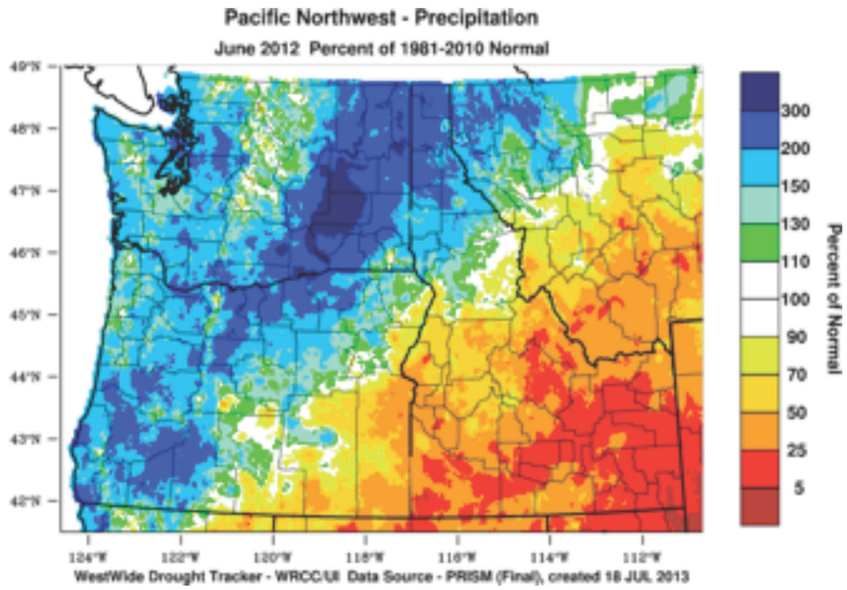
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

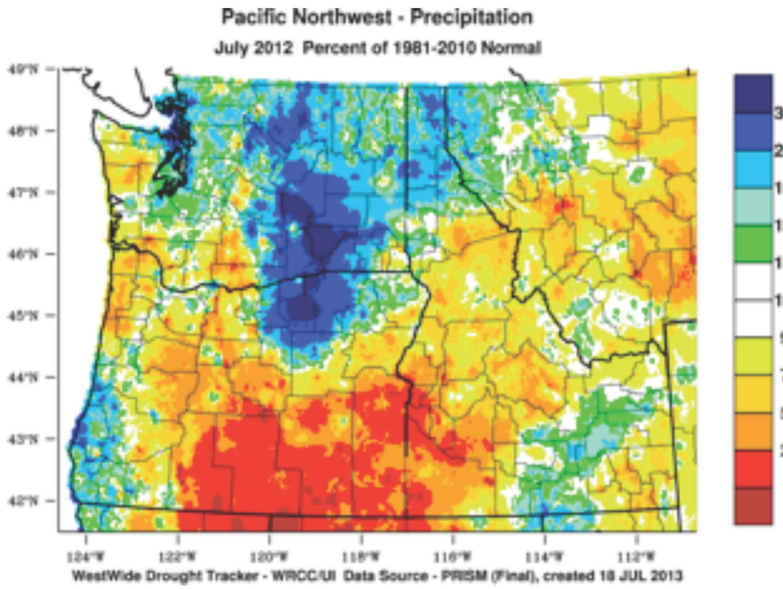
drought monitor over the past 13 years in Idaho

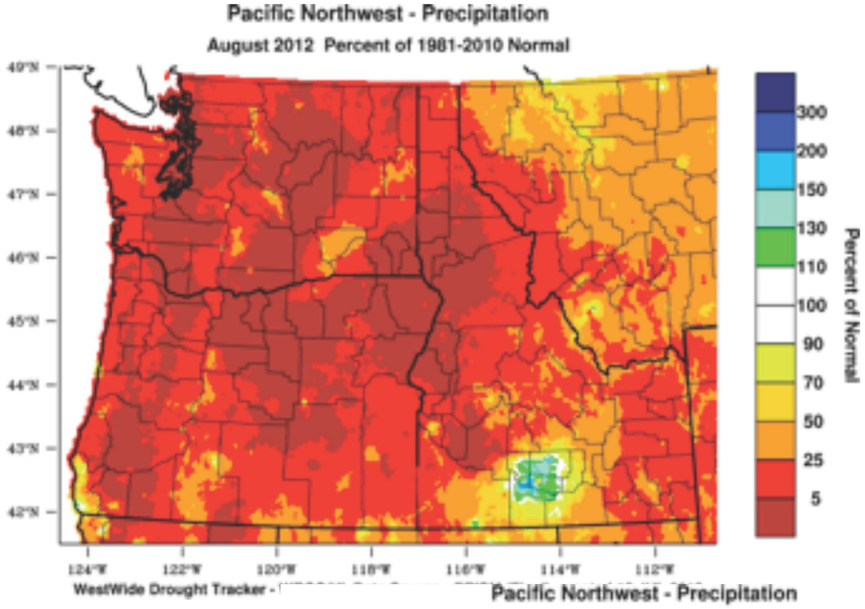


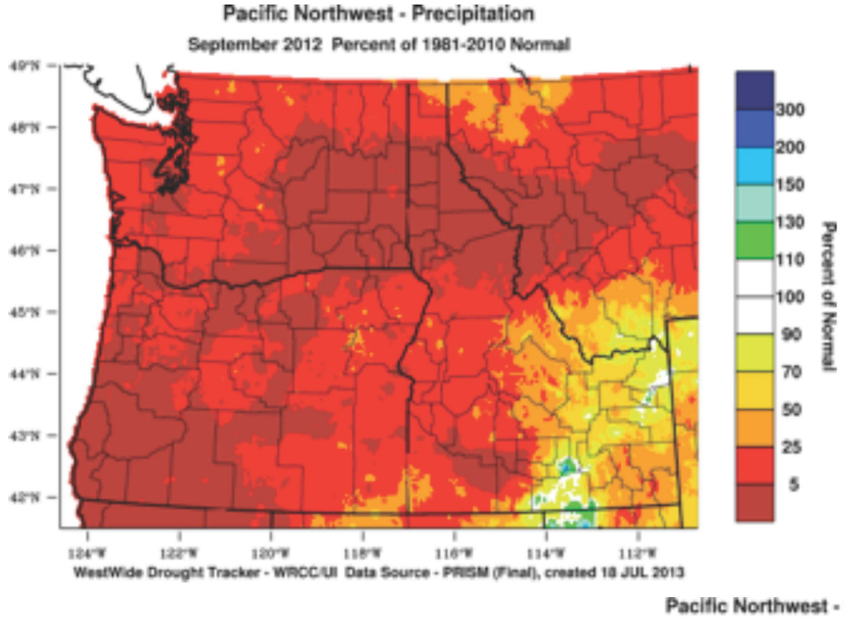
precipitation departures from normal - 2012

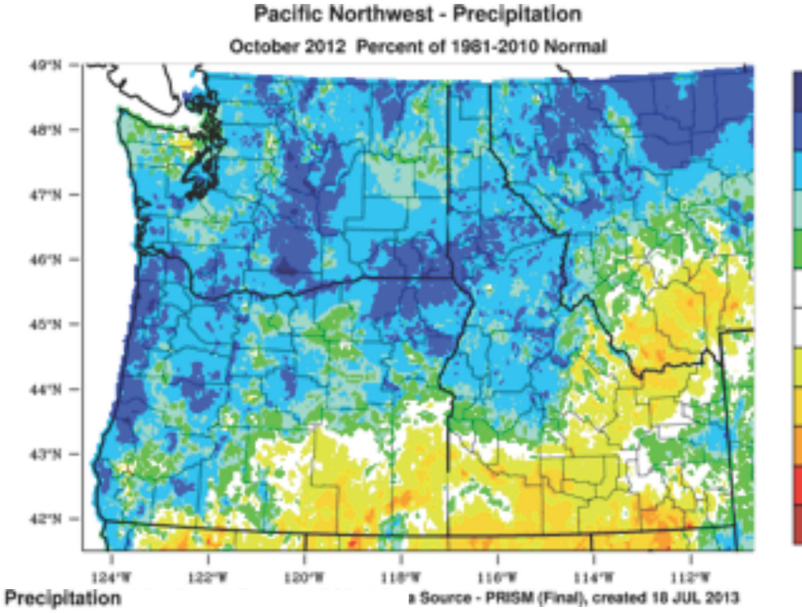


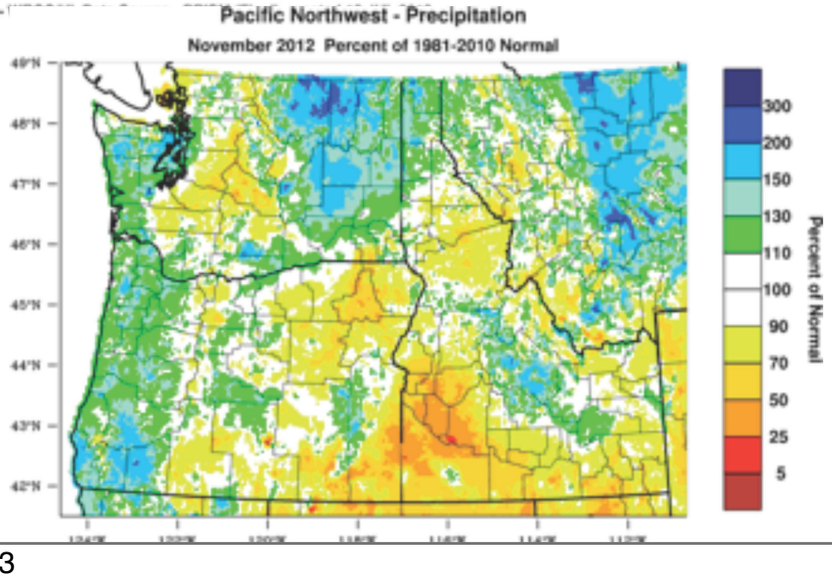


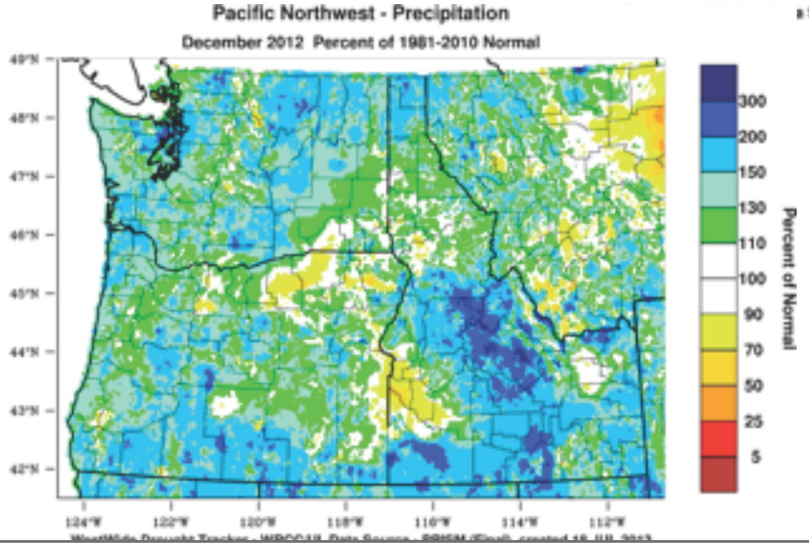


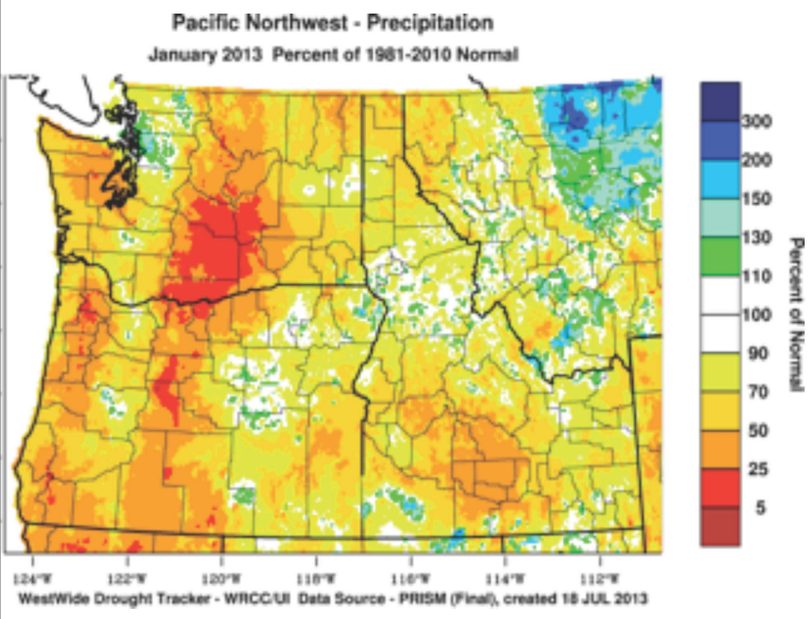


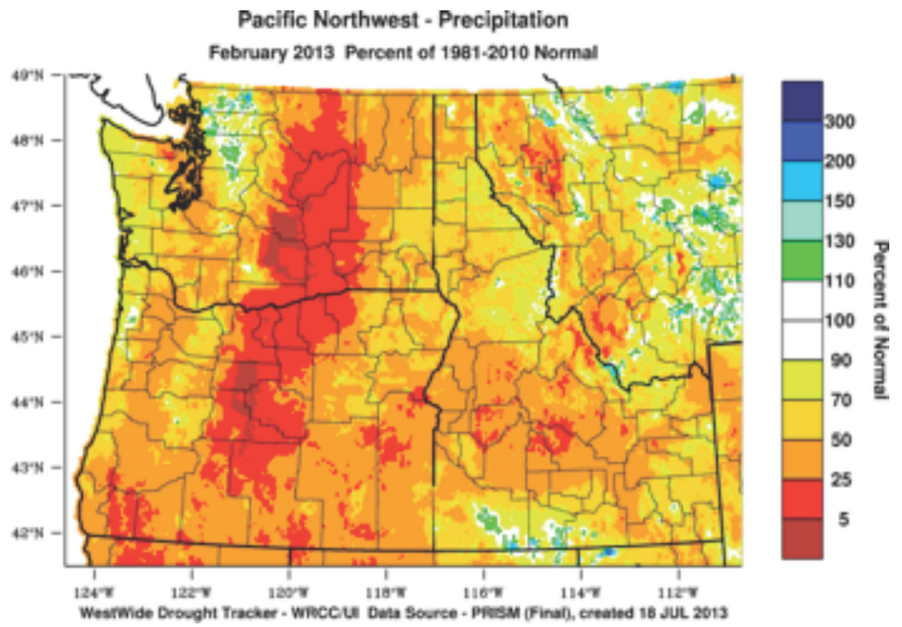


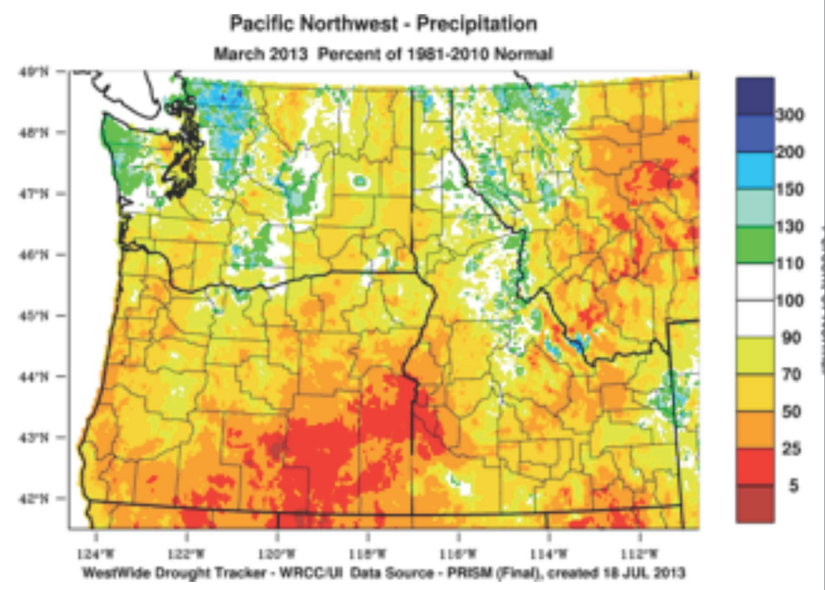


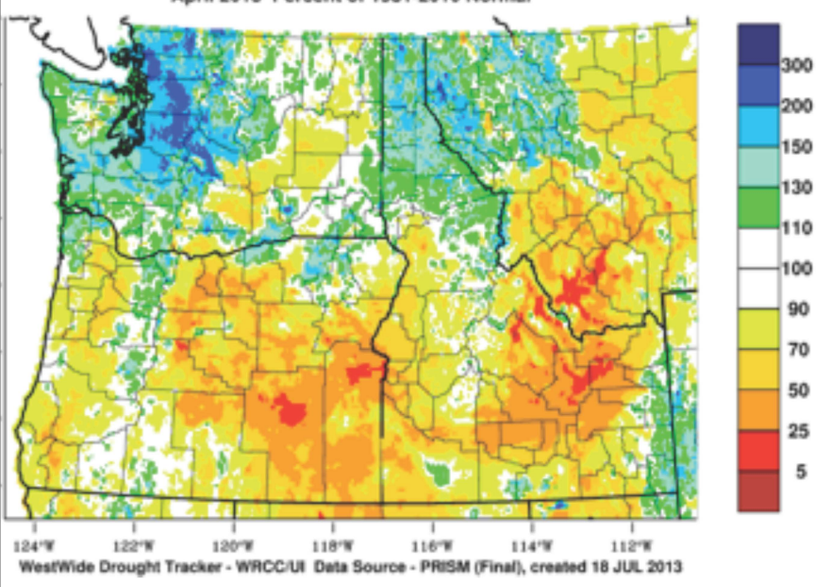


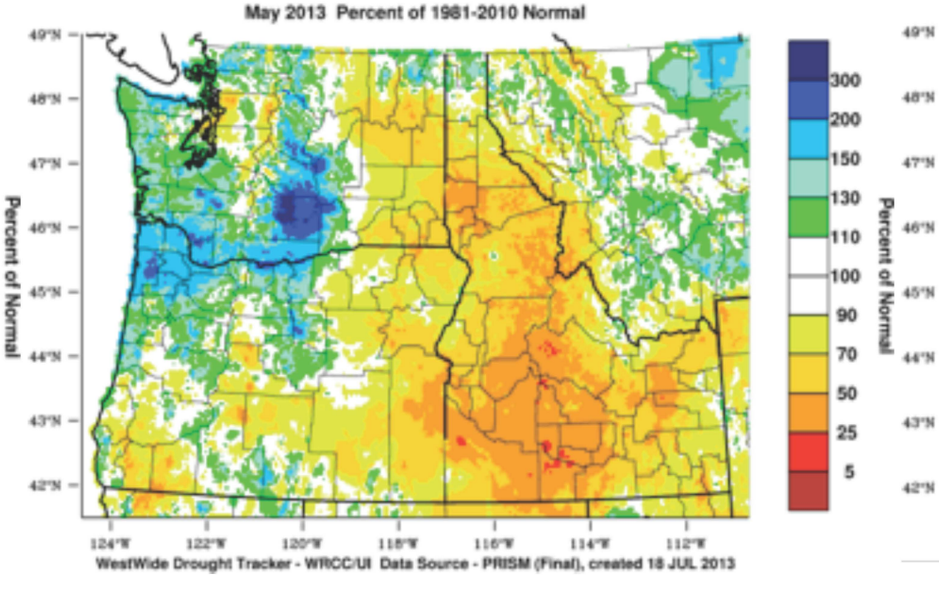


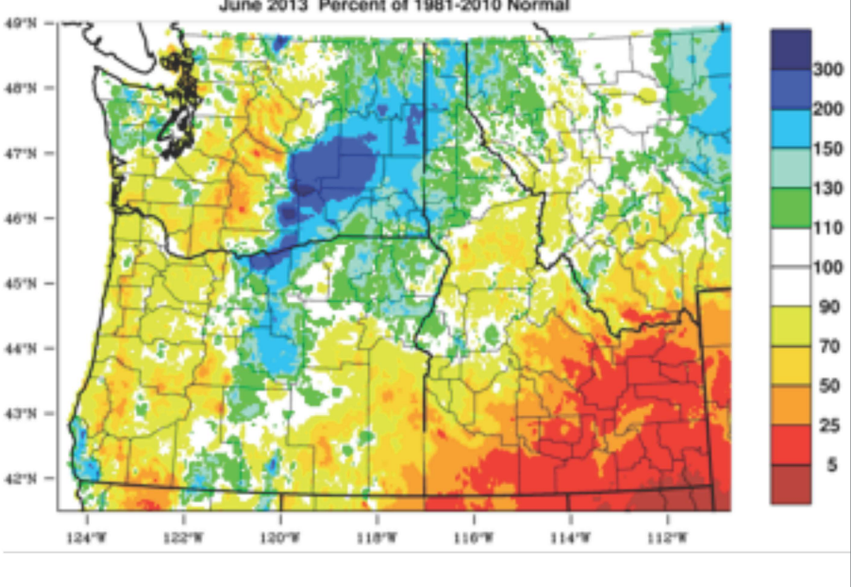

Pacific Northwest - Precipitation
January 2013 Percent of 1981-2010 Normal
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal
124°W
122°W
120°W
118°W
116°W
114°W
112°W
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

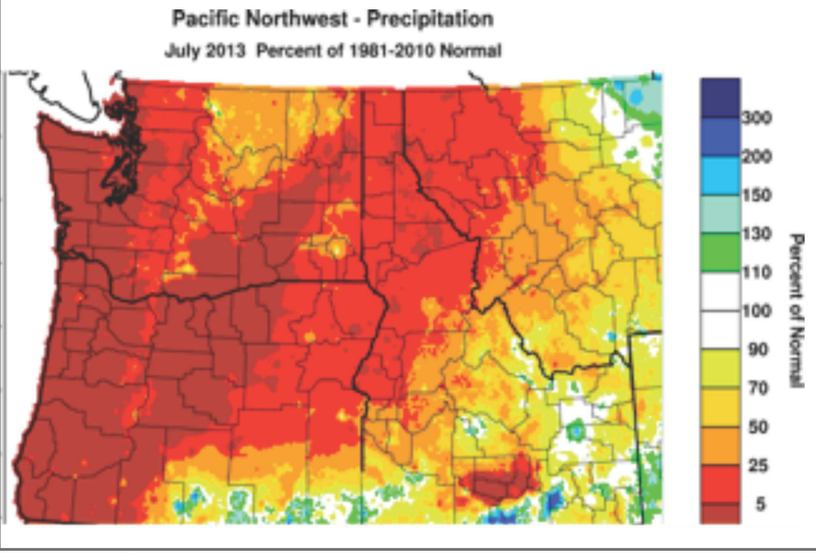

Pacific Northwest - Precipitation
February 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
42°N
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal
124°W
122°W
120°W
118°W
116°W
114°W
112°W
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

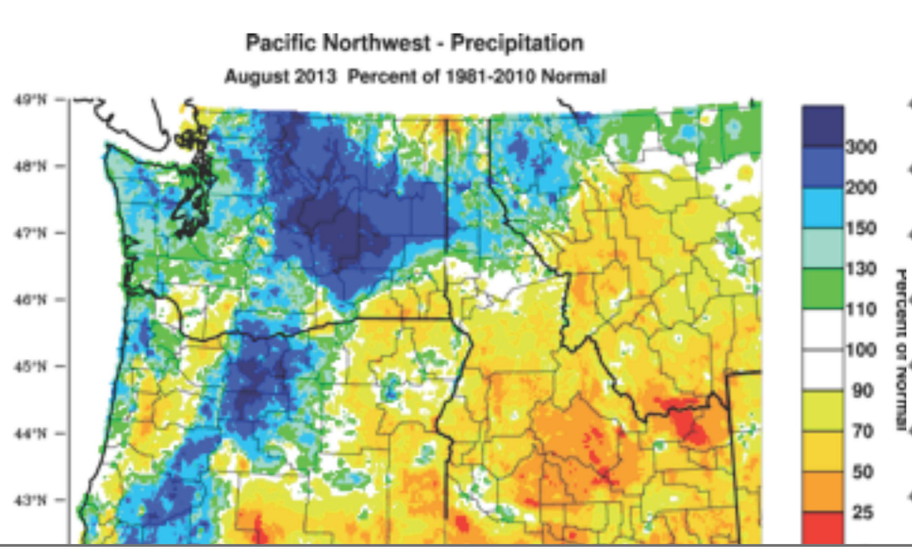

Pacific Northwest - Precipitation
March 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
42°N
300
200
150
130
110
100
90
70
50
25
5
124°W
122°W
120°W
118°W
116°W
114°W
112°W
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

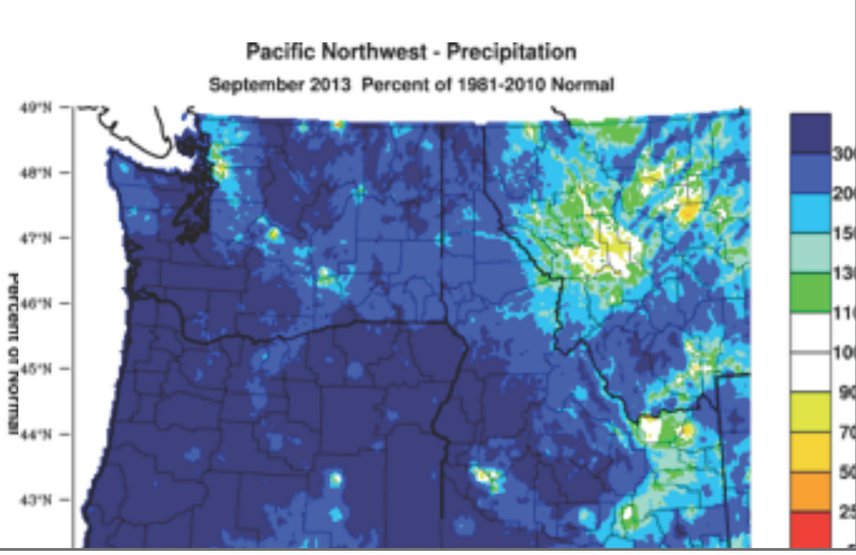

Pacific Northwest - Precipitation
April 2013 Percent of 1981-2010 Normal
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal
124°W
122°W
120°W
118°W
116°W
114°W
112°W
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013


Pacific Northwest - Precipitation
May 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
42°N
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal
124°W
122°W
120°W
118°W
116°W
114°W
112°W
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013


Pacific Northwest - Precipitation
June 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
42°N
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal
124°W
122°W
120°W
118°W
116°W
114°W
112°W

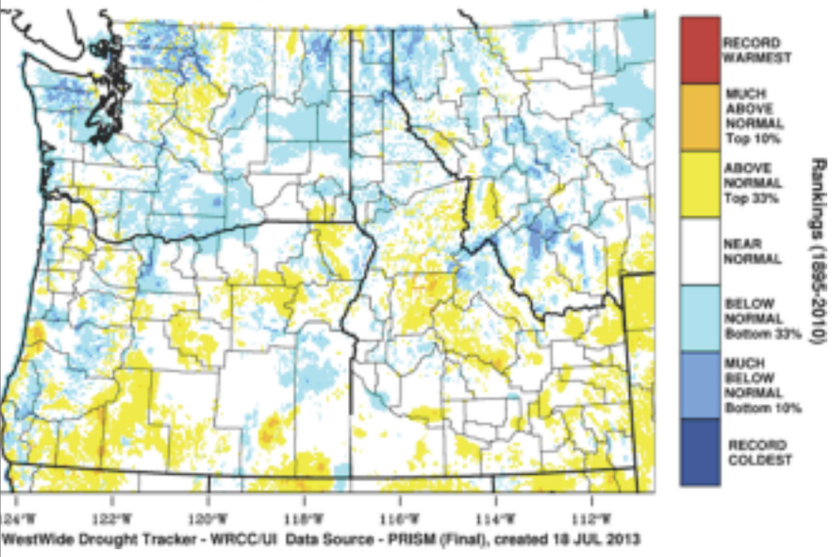

Pacific Northwest - Precipitation
July 2013 Percent of 1981-2010 Normal
300
200
150
130
110
100
90
70
50
25
5
Percent of Normal


Pacific Northwest - Precipitation
August 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
300
200
150
130
110
100
90
70
50
25


Pacific Northwest - Precipitation
September 2013 Percent of 1981-2010 Normal
49°N
48°N
47°N
46°N
45°N
44°N
43°N
Percent of Normal

Pacific Northwest - Mean Temperature

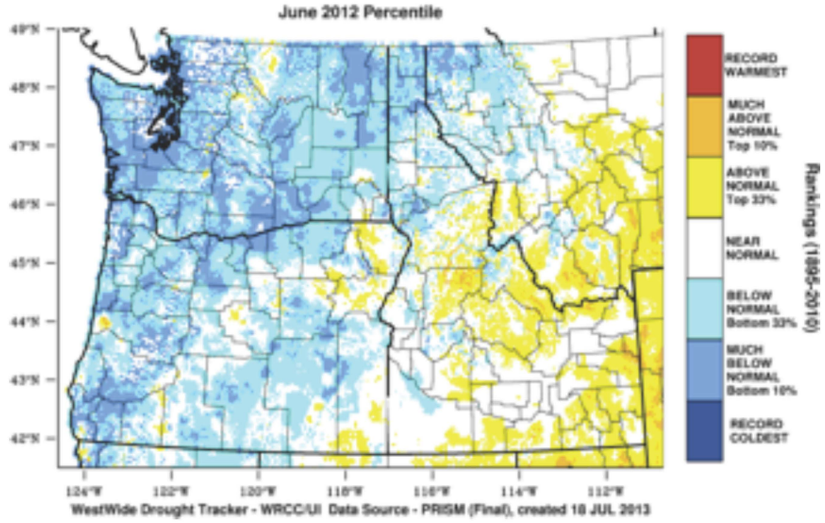
May 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

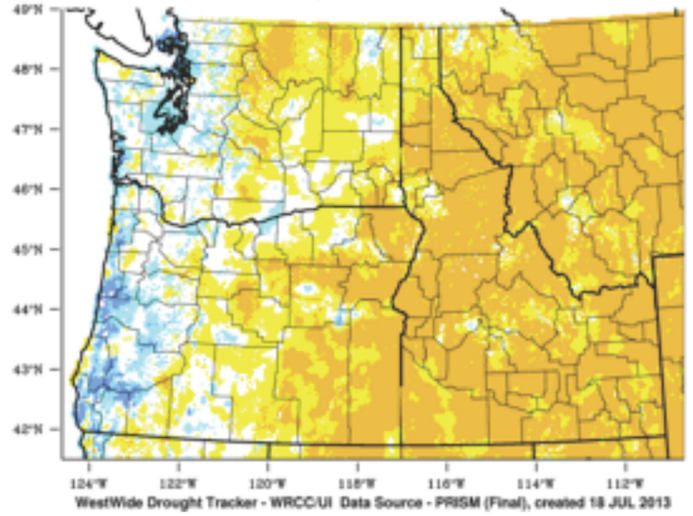
June 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

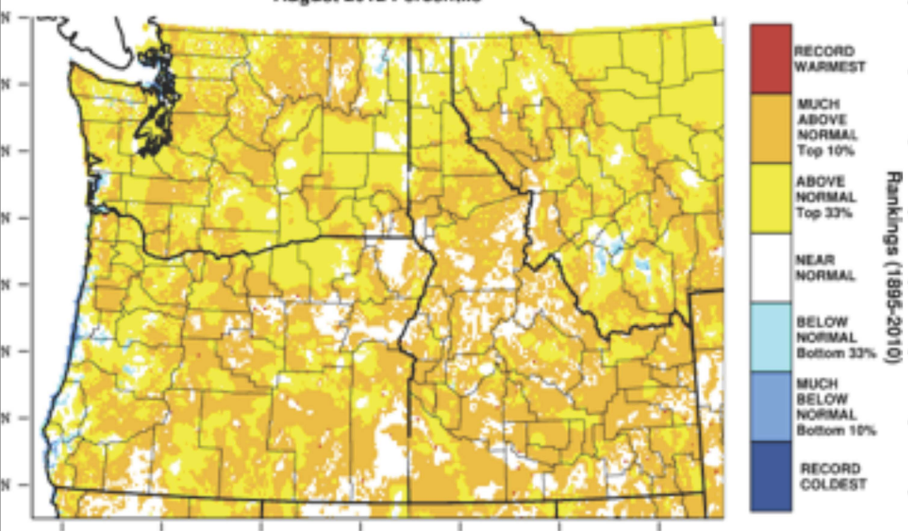
July 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

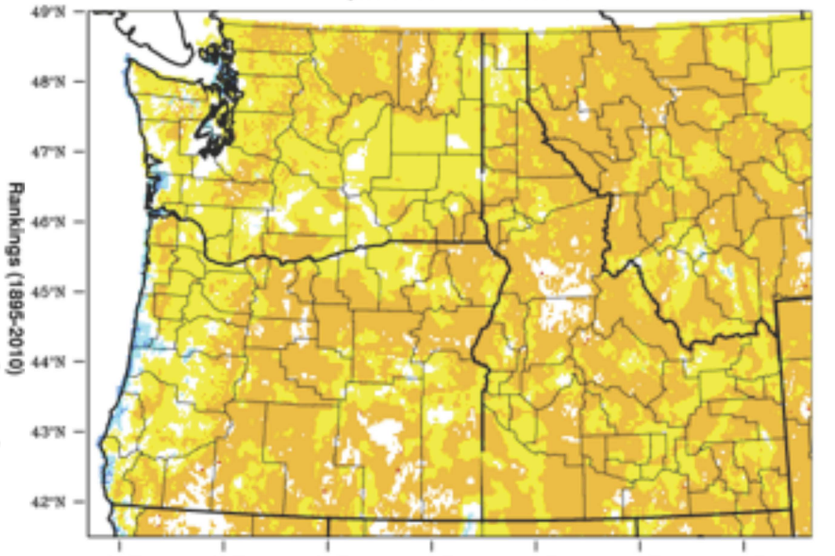
August 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

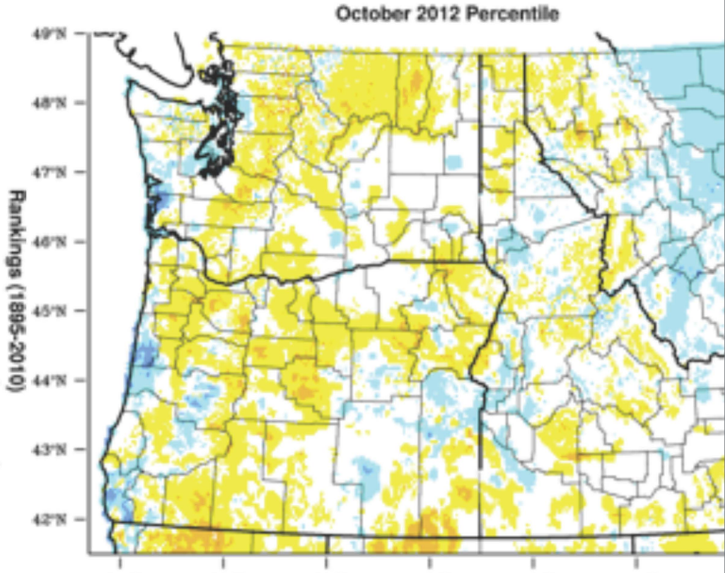
September 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

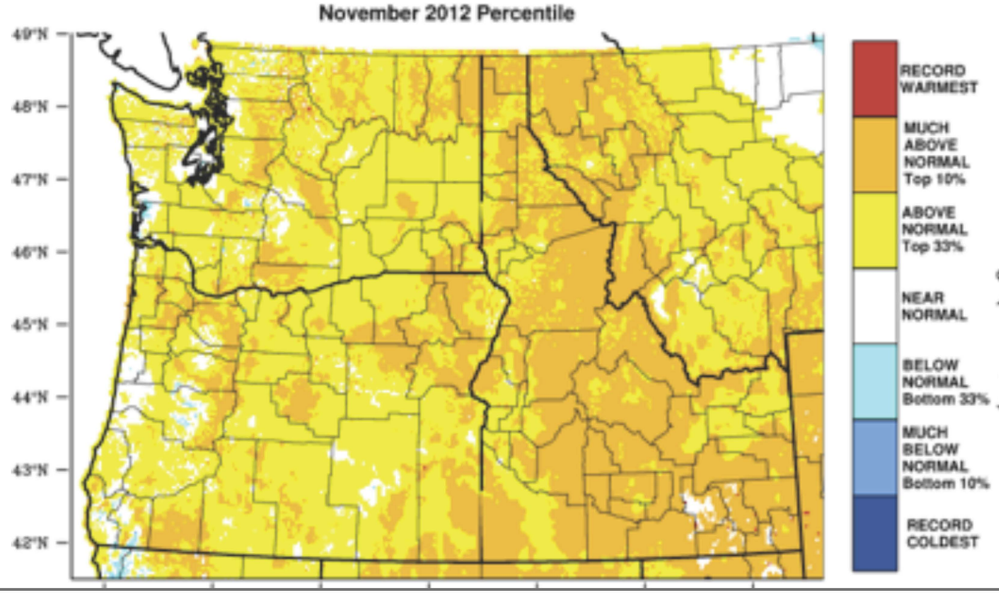
October 2012 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18

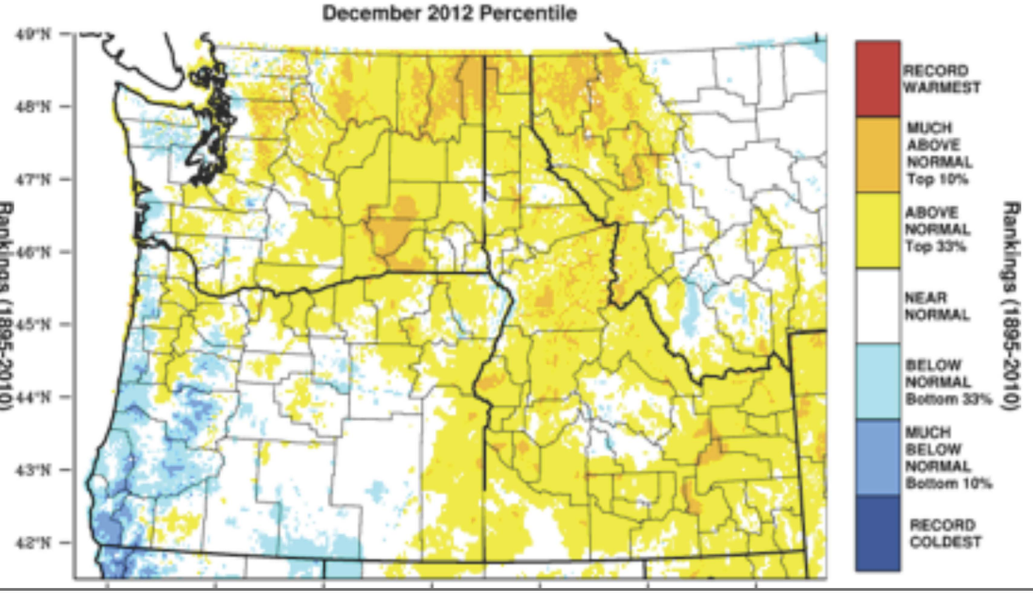
Pacific Northwest - Mean Temperature

November 2012 Percentile



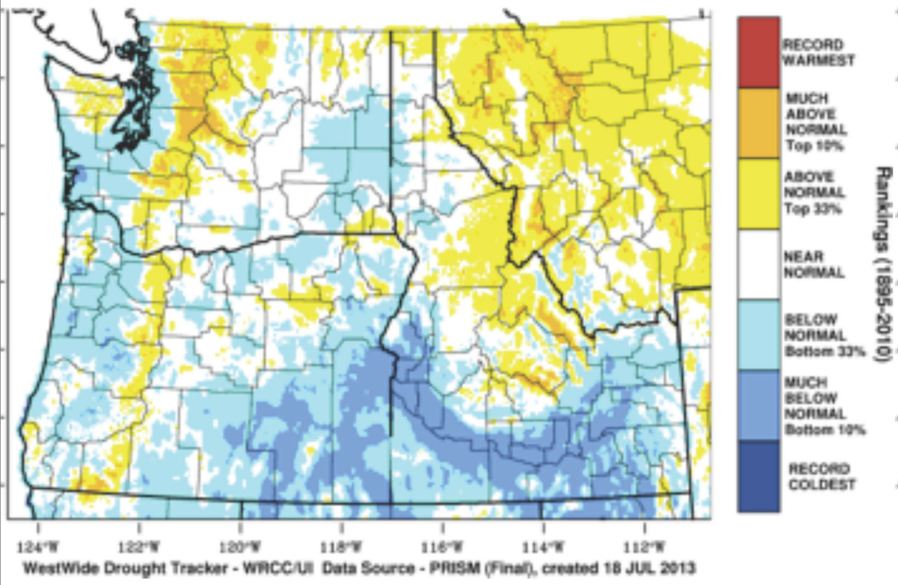
Pacific Northwest - Mean Temperature

December 2012 Percentile



Pacific Northwest - Mean Temperature

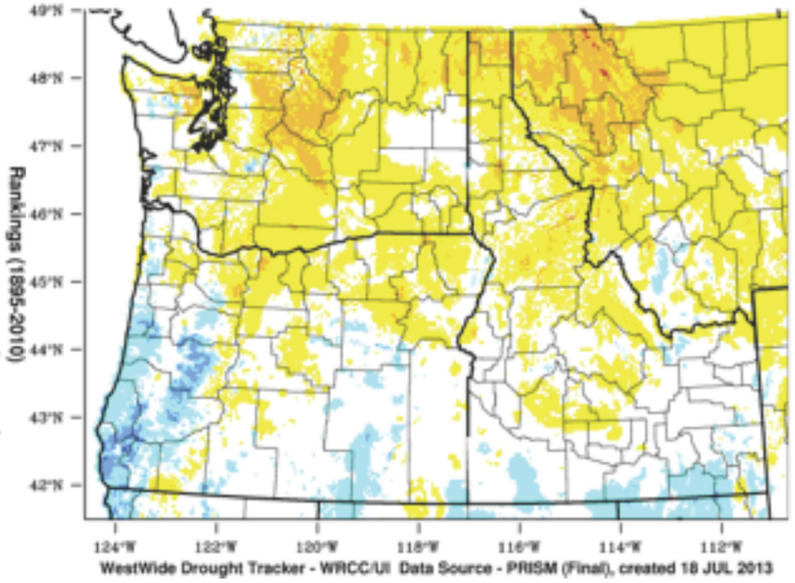
January 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

February 2013 Percentile



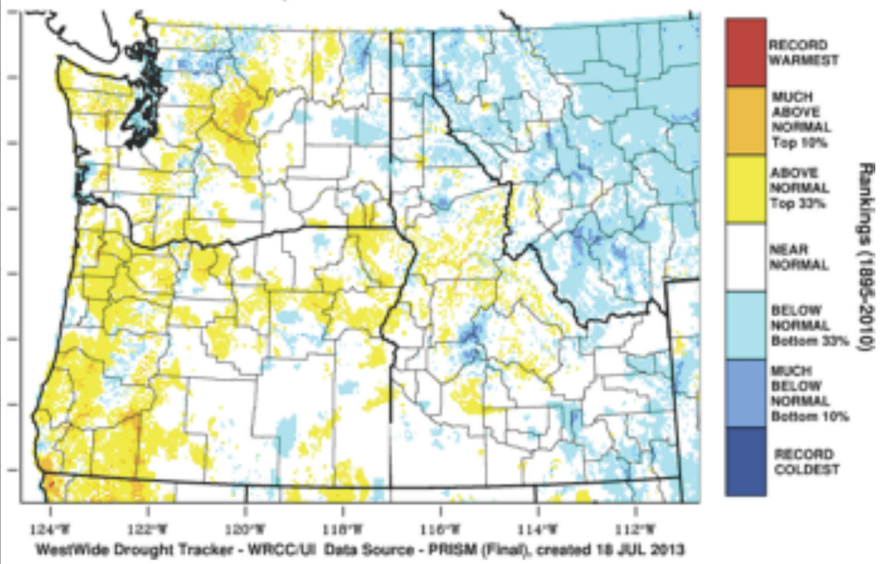
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

March 2013 Percentile

Pacific Northwest - Mean Temperature

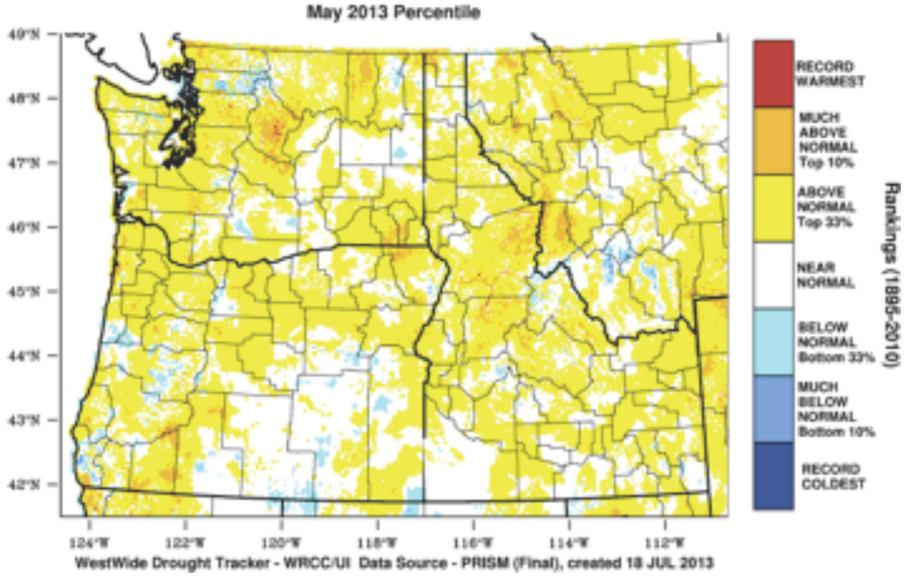
April 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

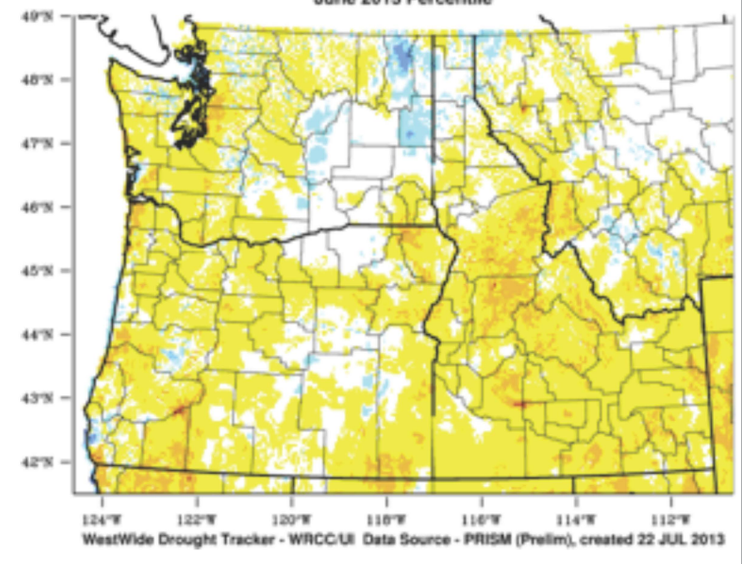
May 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Final), created 18 JUL 2013

Pacific Northwest - Mean Temperature

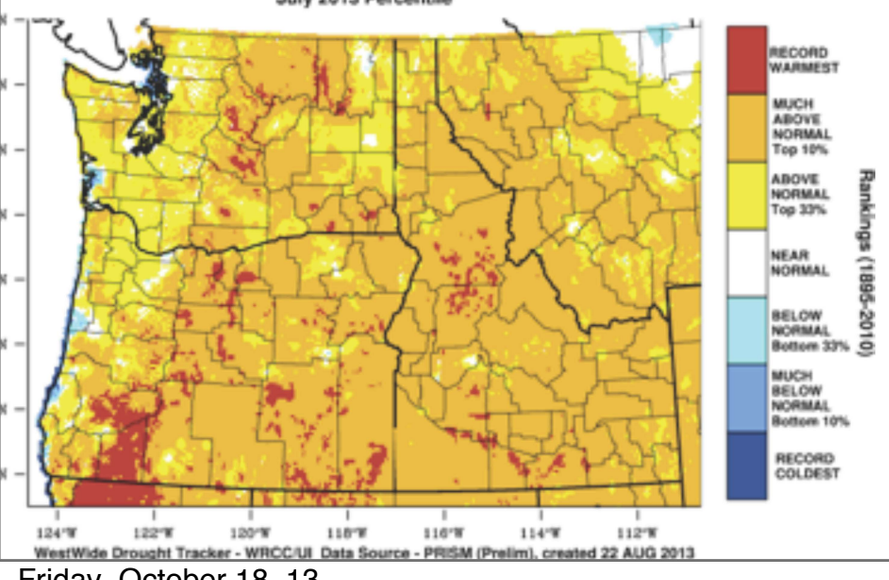
June 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 22 JUL 2013

Pacific Northwest - Mean Temperature

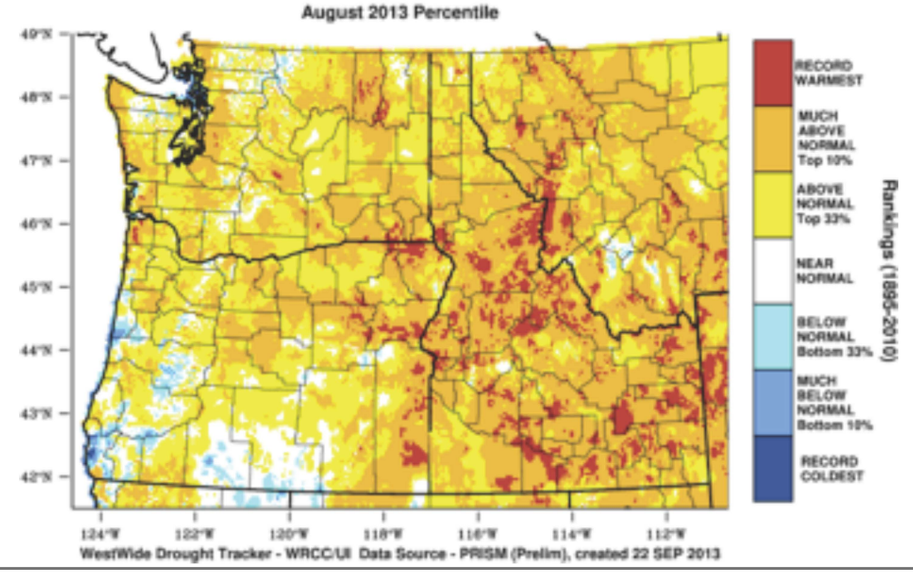
July 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 22 AUG 2013

Pacific Northwest - Mean Temperature

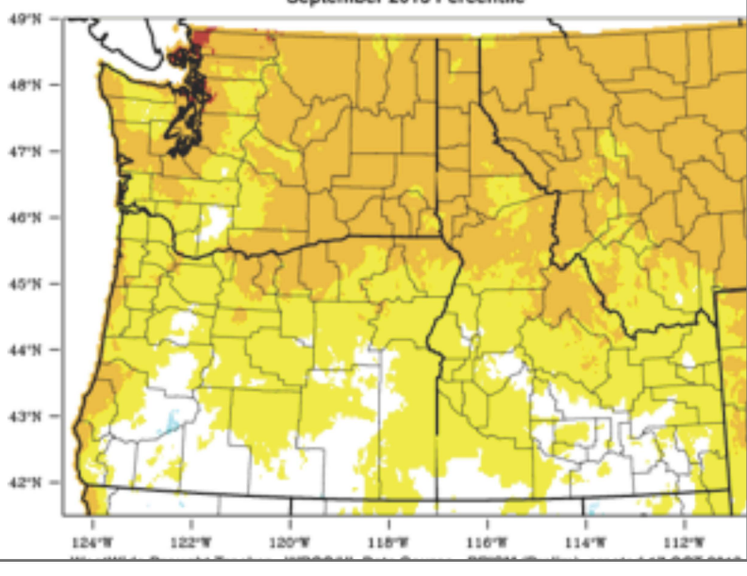
August 2013 Percentile



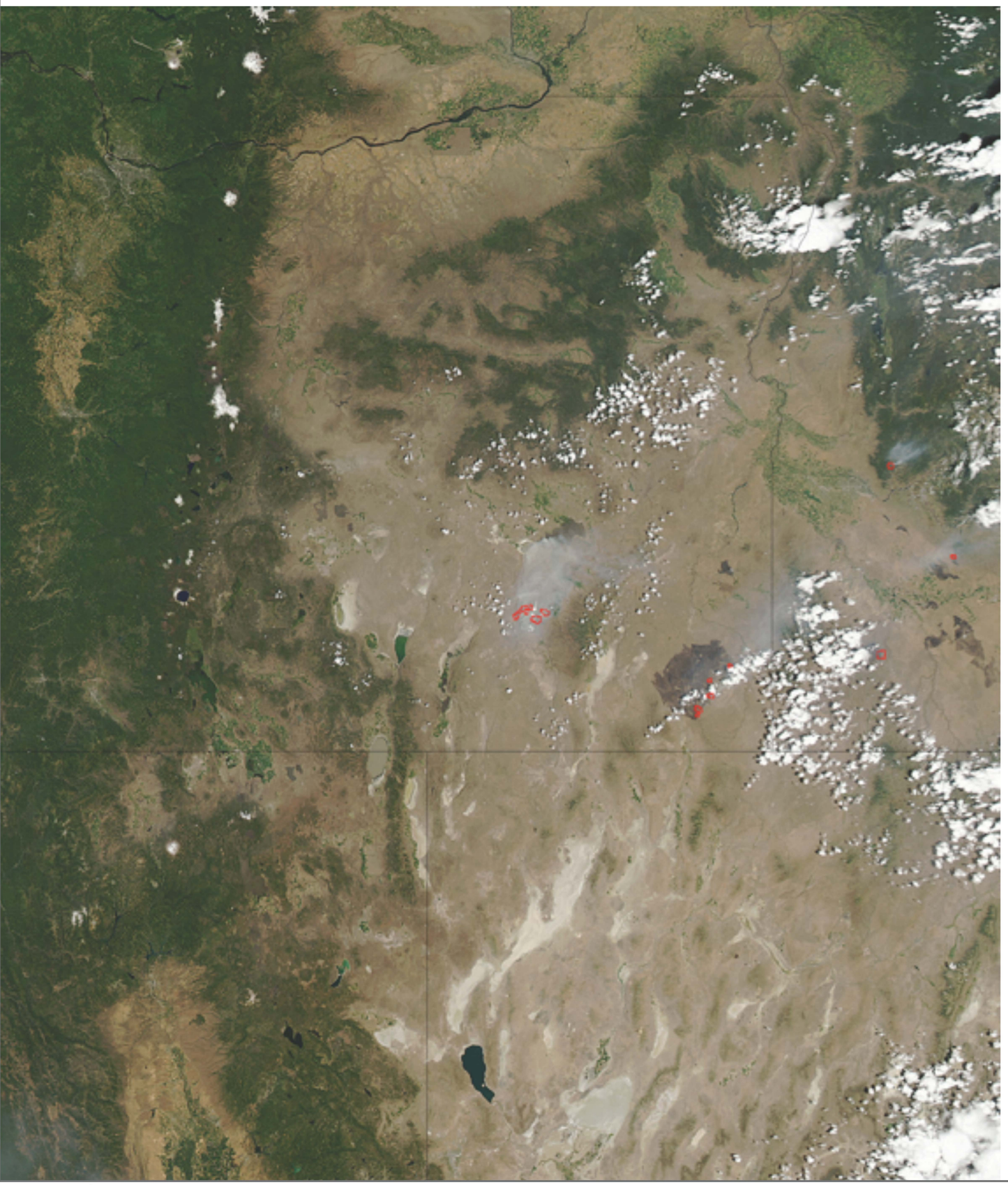
WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 22 SEP 2013

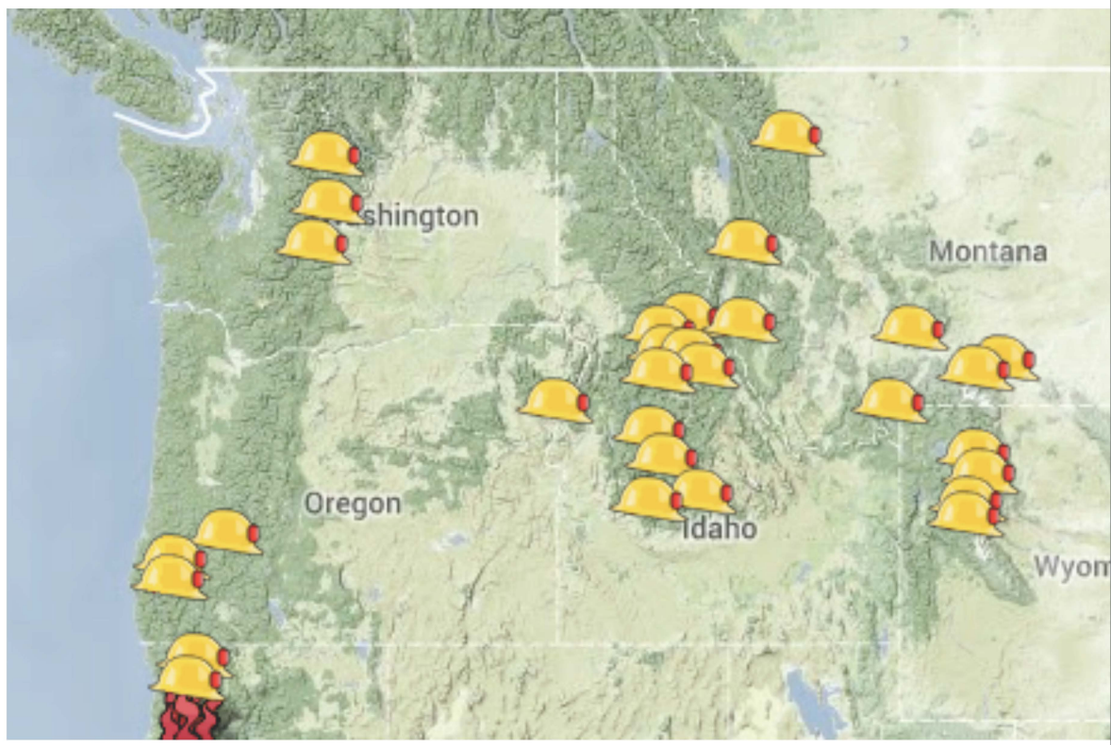
Pacific Northwest - Mean Temperature

September 2013 Percentile



fire





seasonal recaps

CIRC & related partners (National Integrated Drought Information System; Oregon, Washington, Idaho Extension)

CIRC
Climate Impacts Research Consortium

PNW Climate Impacts and Outlook
Spring 2013

Climate recap, March-May 2013

*An upside-down May was the outlier of spring 2013. The month started out warm and dry, but ended cool and wet. The stormy close to the month helped boost long-term precipitation deficits from the prolonged drier than normal period at the beginning of the calendar year.

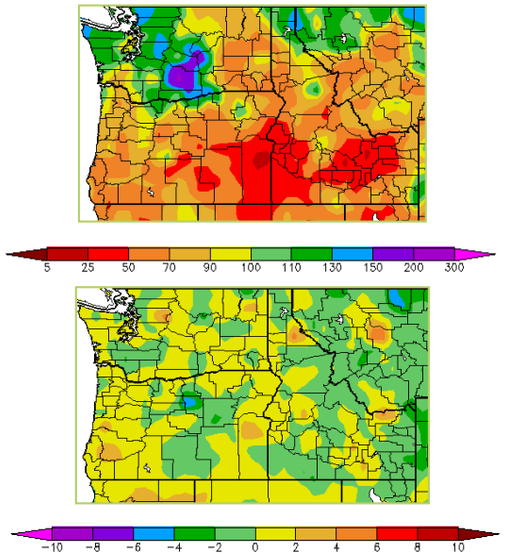
Precipitation

Spring was generally drier than normal across the southern tier of the Pacific Northwest, especially in eastern Oregon and southern Idaho, where drought and fire activity are a concern heading into summer.

Western Washington and the Northern Idaho Panhandle were wetter than normal in Spring, driven mostly by an active weather parttern at the end of May. The Columbia River Gorge, and Yakima Valley were among the wettest anomalies in the region in May. Yakima, WA and Portland, OR both recorded their third wettest May on record.

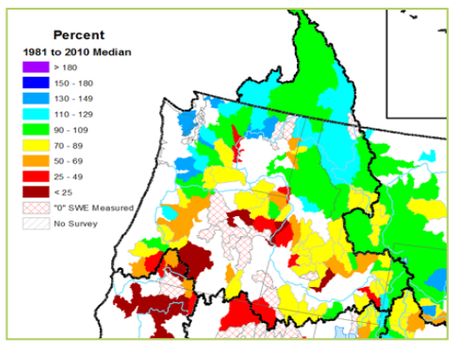
Temperature

Averaged over the season and across the region, temperature departures from normal were minimal. The warmest temperatures of the season were recorded in early and mid-May. Daytime temperatures in the three-state region topped 90˚F in mid-May.

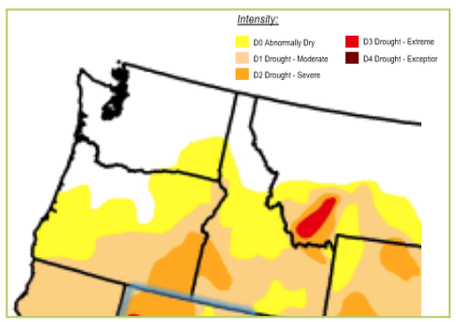


ACIS Maps of Precipitation (% of normal) and Temperature (departure from normal˚F) for March-May 2013 generated from High Plains Regional Climate Center. Normal refers to 1981-2010 period.

Pacific NW Impacts, March-May 2013



May 1 Snow Water Equivalent in Columbia River Basin National Resources Conservation Service



US Drought Monitor as of June 4

Agriculture

*Washington cherry growers expect smaller yield this year due to cool and windy weather during polination. Growers lost early-blooming crop due to cracking from rain in May (USDA Crop Bulletin)

*Oregon strawberries arrived earlier than last year thanks to warm and dry weather, but rain in late spring is causing rot in some varieties (OSU Extension)

*Irrigation is being used in the Snake River Plain to assist with crop emergence prior to the main growing season due to limited spring precipitation.

Water Resources

*Severe drought conditions currently exist in eastern Oregon and western Idaho. Moderate drought condtions are occuring in southern and eastern Oregon and Idaho. Drought is expected to persist or intensify across Oregon and Idaho into the summer.

PNW Counties with a formal drought declaration:

Idaho: Blaine, Butte, Clark, Fremont, and Lincoln Counties

Oregon: Klamath County

*Reservoir levels are lower than average across most of eastern Oregon and southern Idaho and levels are far below last year.

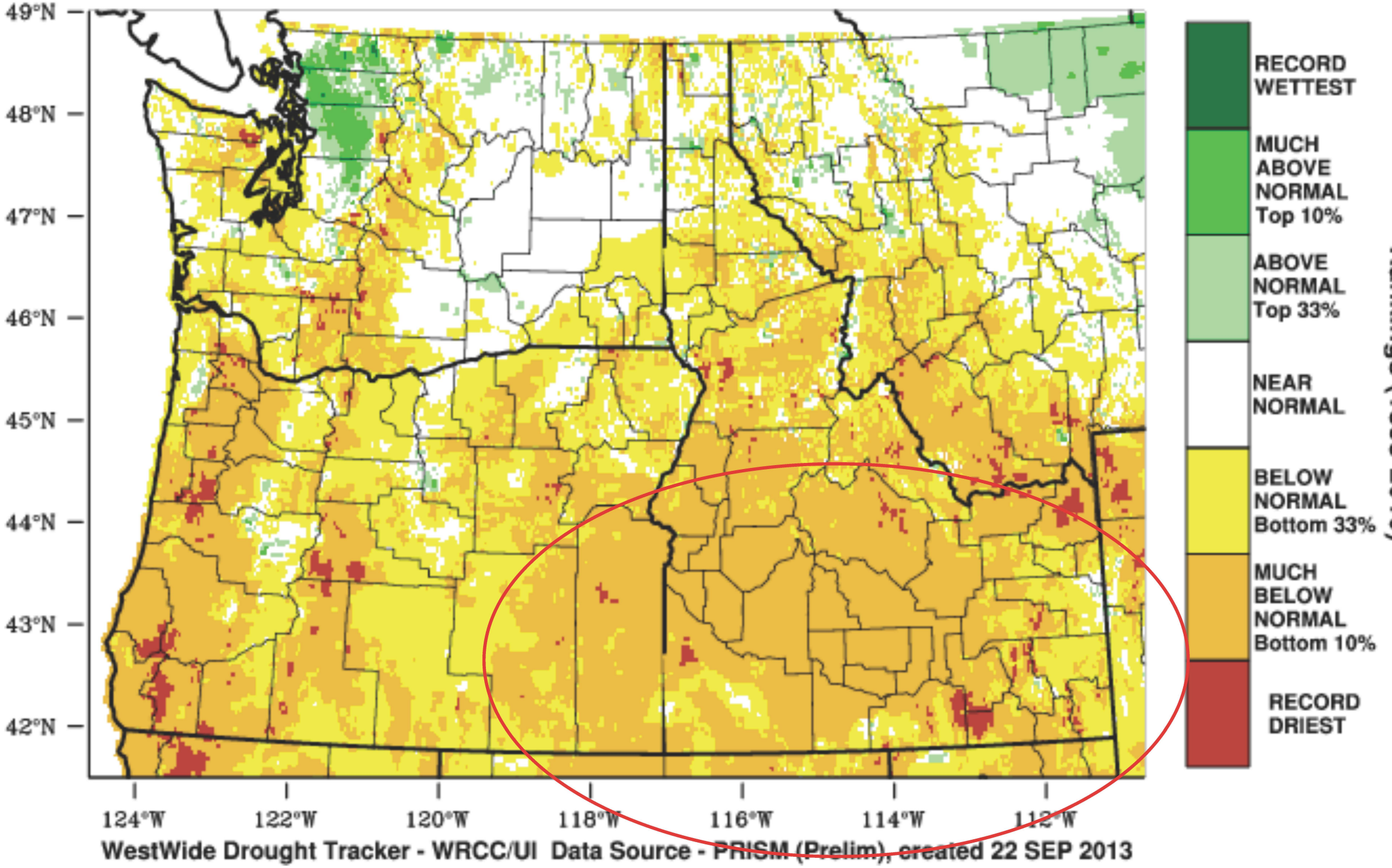
*Snowpack melted out quickly in southern Oregon and southern Idaho, but a robust snowpack persisted in the Washington Cascades and Northern Idaho, reducing fire danger and drought concerns. Snowpack levels increased through May in the northern Columbia River Basin.

Recreation/Economy

*Owing to low snowpack, the North Entrance road of Crater Lake National Park (OR) opened on May 17, 2013. This is almost a month earlier than last year. Low snow helped save on snow removal costs which were expected to be impacted by Federal sequestration (Klamath Falls Herald and News)

Pacific Northwest - Precipitation

January-August 2013 Percentile



WestWide Drought Tracker - WRCC/UI Data Source - PRISM (Prelim), created 22 SEP 2013

U.S. Drought Portal

www.drought.gov

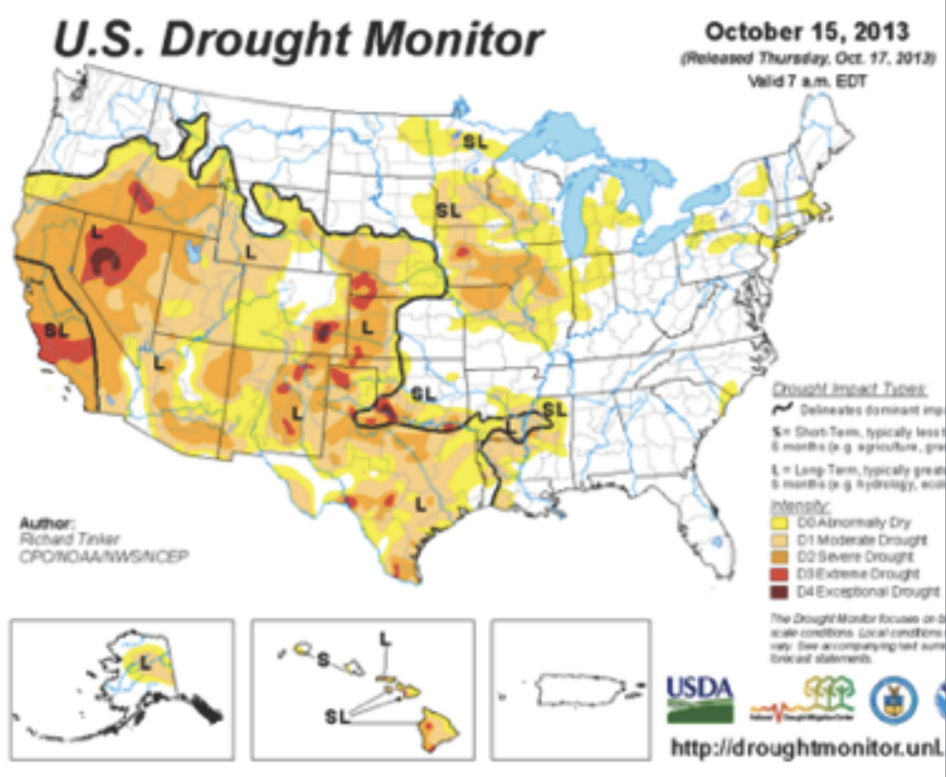
Welcome!

Drought is one of the most costly natural disasters affecting the U.S. The National Integrated Drought Information System (NIDIS) was established in 2006 (NIDIS Act) to help begin to move society from a reactive response to drought to a proactive stance. NIDIS was envisioned to be a dynamic and accessible drought information system that provides users with the ability to determine the potential impacts of drought and the associated risks they bring, and the decision support tools needed to better prepare for and mitigate the effects of drought. In this, NIDIS forms the backbone of a national Drought Early Warning System and the U.S. Drought Portal is the public face of NIDIS on the Web.

Learn More...

NIDIS USGS Real-time Salinity Drought In
Workshop
This workshop will be rescheduled
Meeting Agenda | Register Online Here

U.S. Drought Monitor



in summary

- Water year 2012 below normal
- July-September 2012 exceptionally dry
- Some relief end of 2012
- January-August 2013
  - 10th driest on record in Idaho
  - 6th driest on record in OR
- Idaho most acres burned in lower 48 (715K) in 2013

thank you!

- drought impacts:
kdello@coas.oregonstate.edu