

# Montana Drought Status by County

Troy Blandford

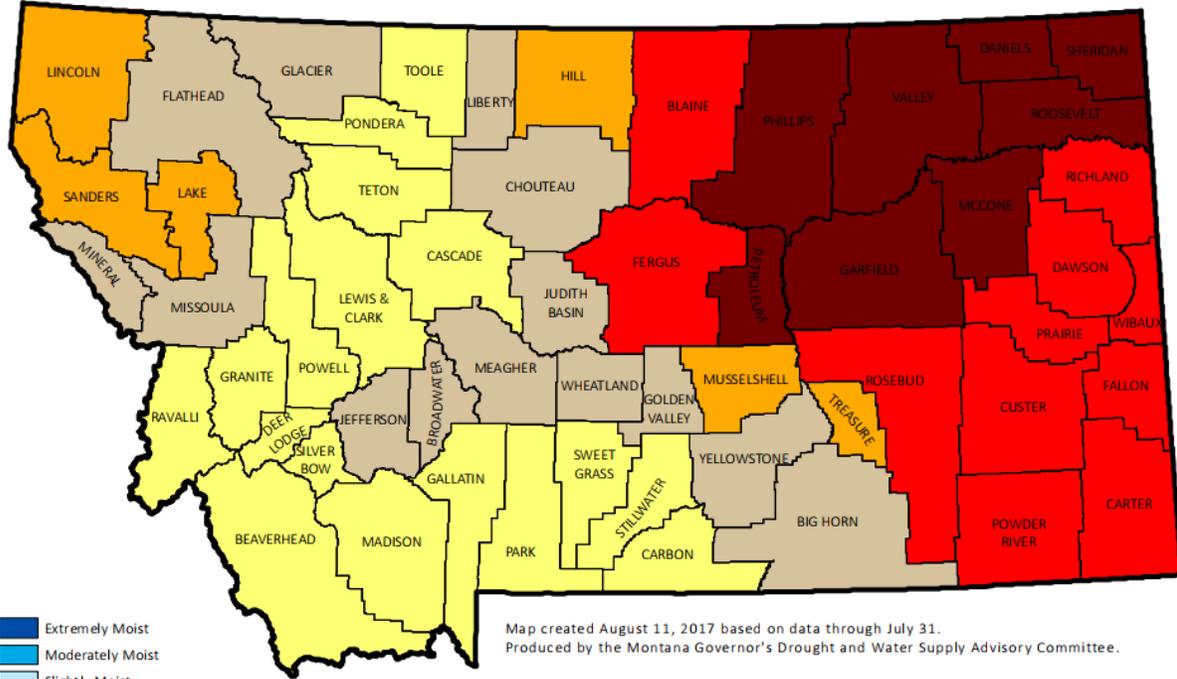
Montana State Library

Water Information System

*Prepared for the Montana Governor's Drought and Water Supply Advisory Committee, September 19, 2017*

# August 1

Montana Drought Status by County - August 1, 2017



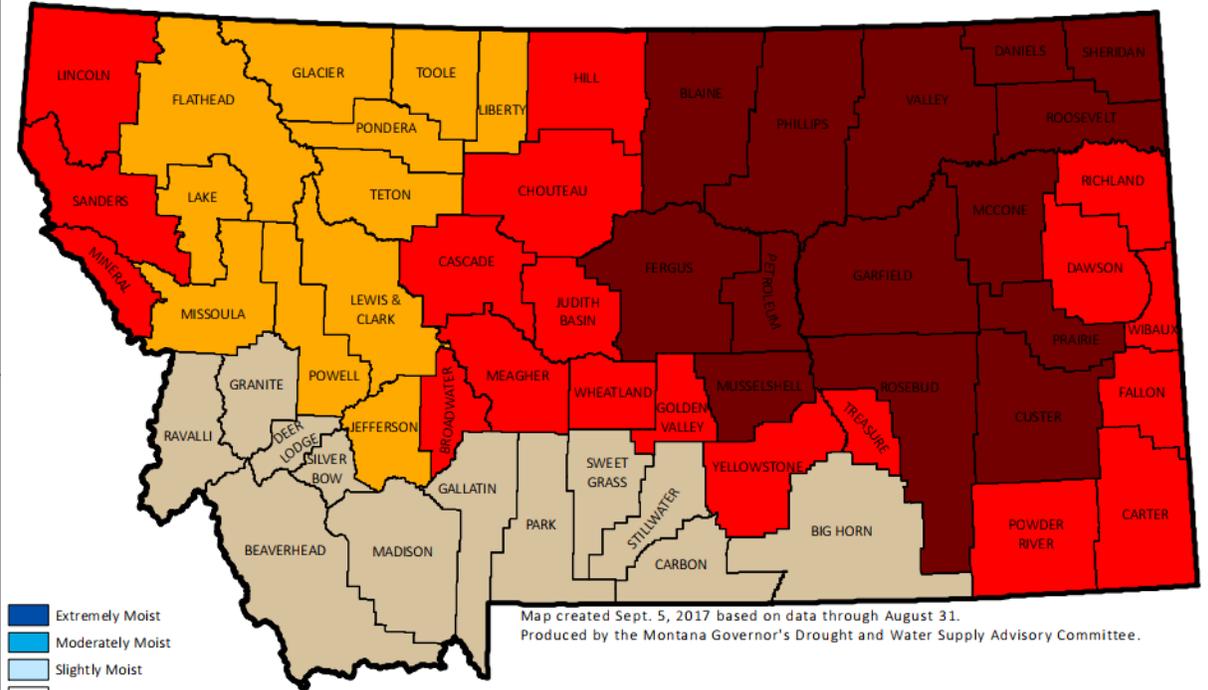
More information: <http://drought.mt.gov>



<http://nris.mt.gov/drought>

# September 1

Montana Drought Status by County - September 1, 2017



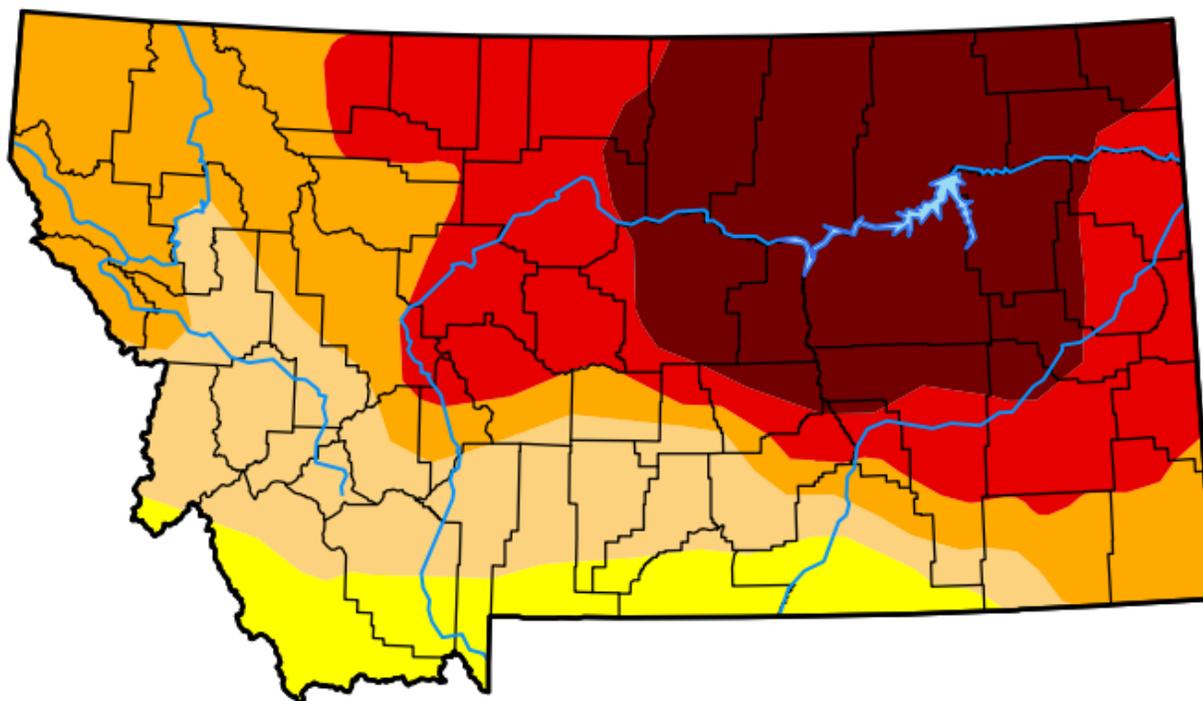
More information: <http://drought.mt.gov>



<http://nris.mt.gov/drought>

*U.S. Drought Monitor*  
**Montana**

**September 12, 2017**  
*(Released Thursday, Sep. 14, 2017)*  
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:*

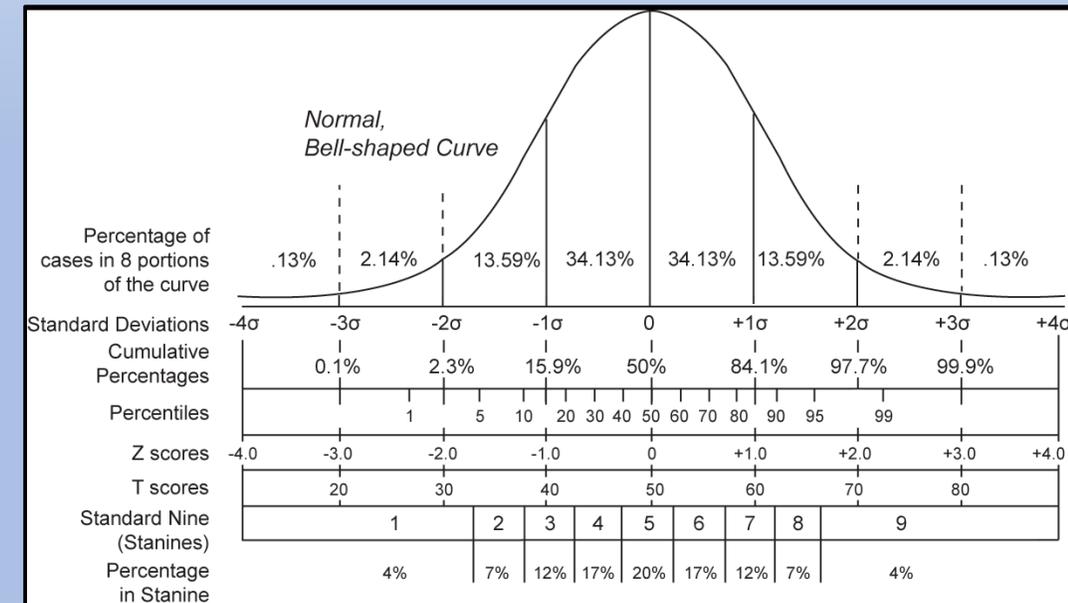
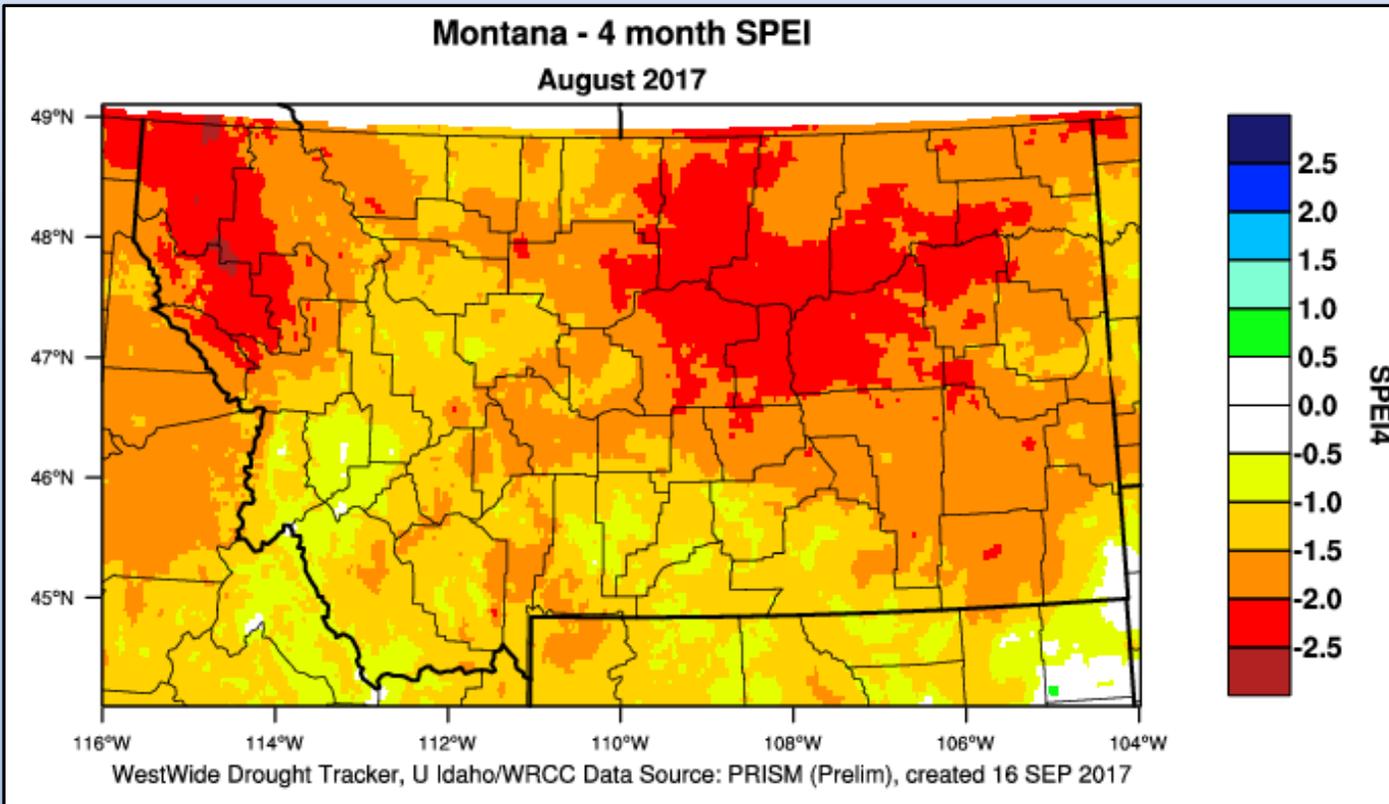
Richard Tinker  
CPC/NOAA/NWS/NCEP



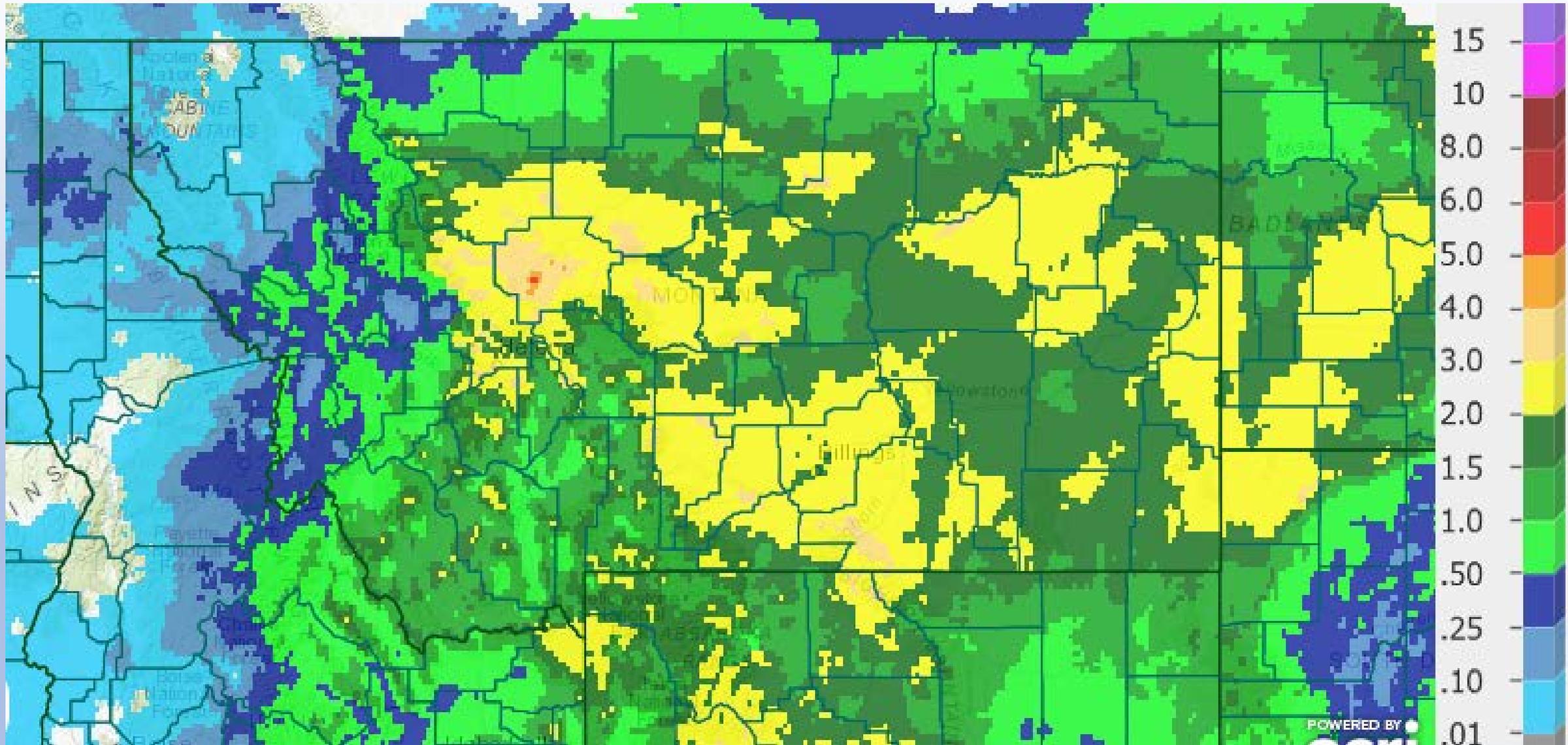
<http://droughtmonitor.unl.edu/>

# Indicators used

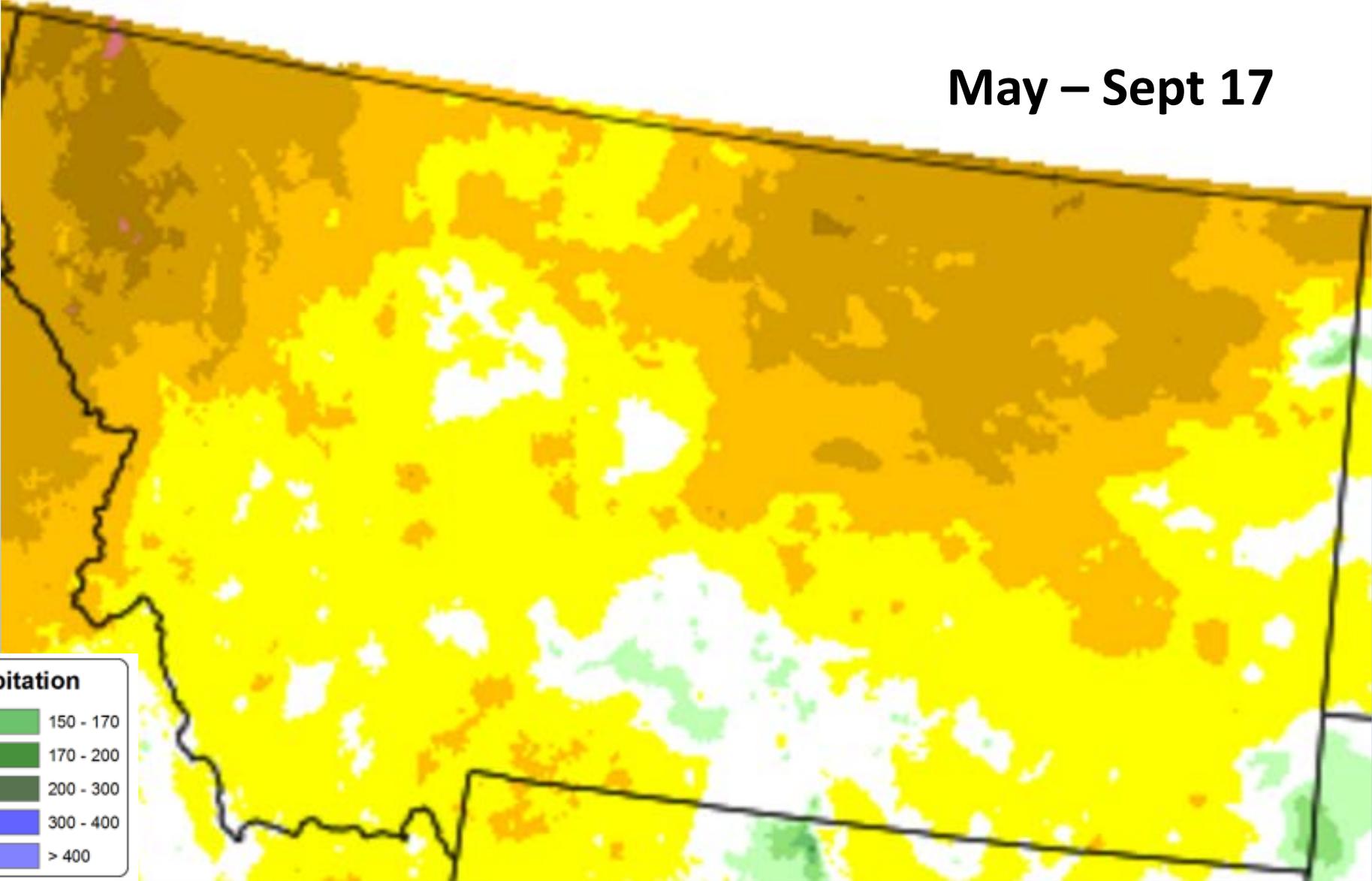
- Precip anomaly (1 month, water year)
- Temperature anomaly (1 month, water year)
- SPEI (1 month, 4 month, water year, 30 month)
- Evapotranspiration, Deficit
- Streamflow
- Soil moisture
- Vegetation (NDVI, VegDri, QuickDri)



# Observed Precipitation Last 7 Days (since Sept. 18)



May – Sept 17



OSU PRISM Data <<http://prism.oregonstate.edu/comparisons/drought.php>>

# Montana Precipitation Rankings, August 2017

« July 2017



*More information on Climatological Rankings*

Download: [XML](#)  

PERIOD	PRECIP	20 <sup>TH</sup> CENTURY AVERAGE	DEPARTURE	RANK	WETTEST/DRIEST SINCE	RECORD
May - Aug 2017 4-month period	4.10" (104.14 mm)	8.18" (207.77 mm)	-4.08" (-103.63 mm)	2 <sup>nd</sup> Driest	Driest since: 1919	1919
				122 <sup>nd</sup> Wettest	Wettest since: 2016	1993

# MT Drought Impacts Reporter

- Released July 13
  - Live/ongoing
- 134 responses (34 since last DWSAC meeting, Aug. 30<sup>th</sup>)
  - Retake it as conditions change or to report a different location

**Need reports if conditions improve too.**

**Name (optional)**  
John Smith

**Organization (optional)**

**Email Address (optional)**

**Date \***

**County where observations were made \***  
(to submit an additional county please submit an additional survey)

**Primary Drought Impact Type \***  
(to submit an additional impact type please submit an additional survey)

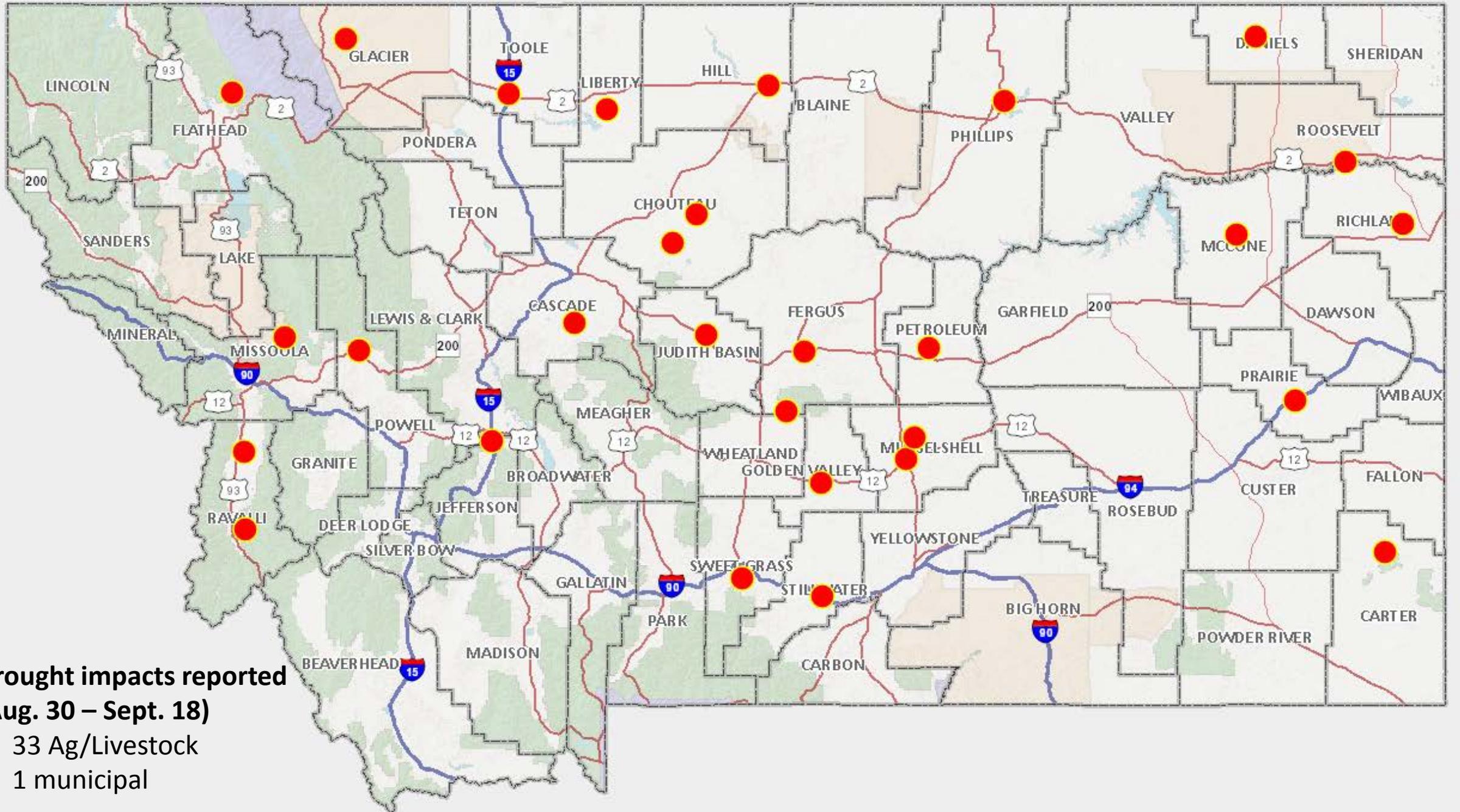
**How many inches of rain in the last month?**

< 0.5

0.5-1

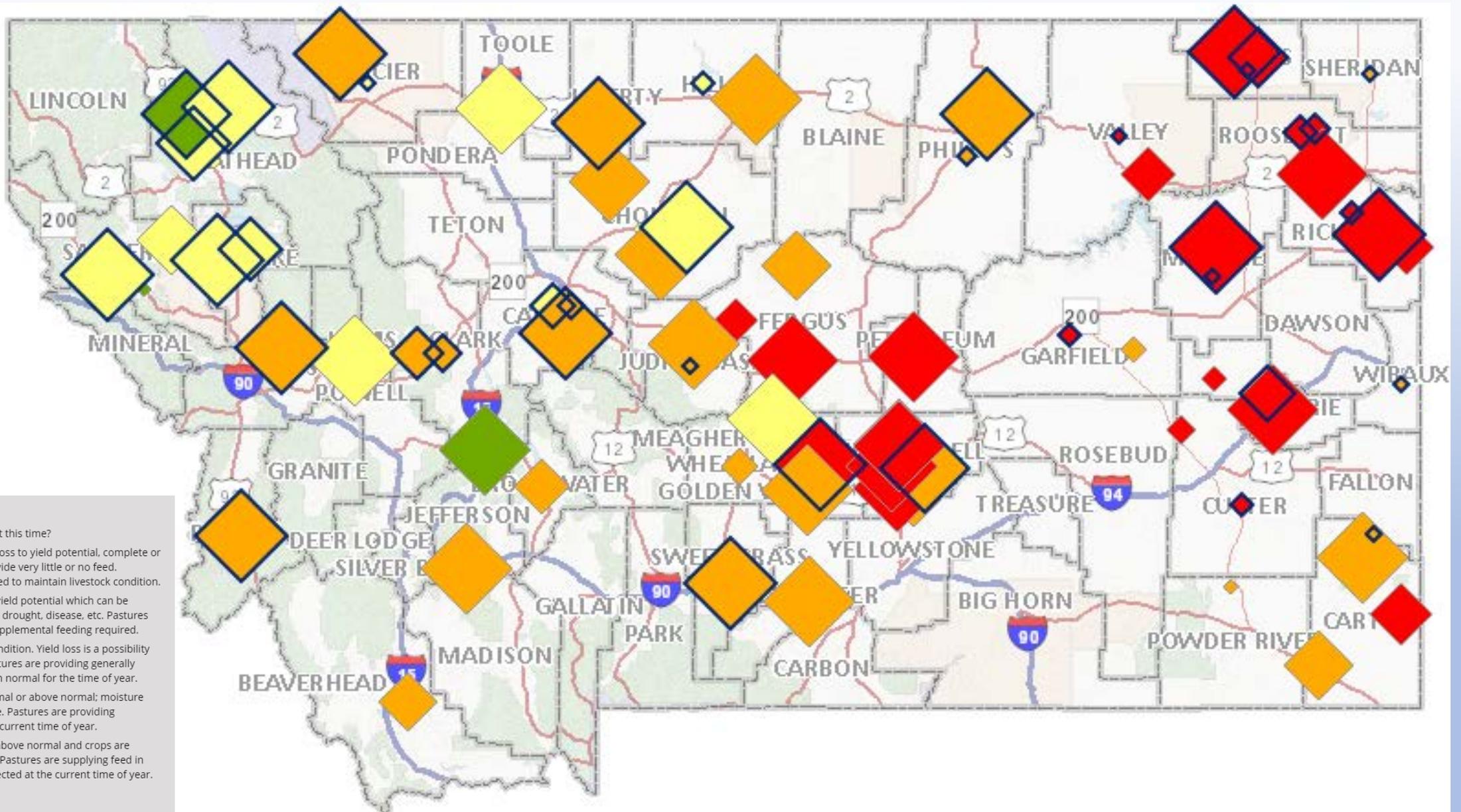
1-1.5

1.5-2



**Drought impacts reported  
(Aug. 30 – Sept. 18)**

- 33 Ag/Livestock
- 1 municipal



**Crop and Range Conditions**

How are crop and range conditions at this time?

- ◆ **Very Poor** - Extreme degree of loss to yield potential, complete or near crop failure. Pastures provide very little or no feed. Supplemental feeding is required to maintain livestock condition.
- ◆ **Poor** - Heavy degree of loss of yield potential which can be caused by excess soil moisture, drought, disease, etc. Pastures are providing marginal feed; supplemental feeding required.
- ◆ **Fair** - Less than normal crop condition. Yield loss is a possibility but the extent is unknown. Pastures are providing generally adequate feed but still less than normal for the time of year.
- ◆ **Good** - Yield prospects are normal or above normal; moisture adequate with minimal damage. Pastures are providing adequate feed supplies for the current time of year.
- ◆ **Excellent** - Yield prospects are above normal and crops are experiencing little or no stress. Pastures are supplying feed in excess of what is normally expected at the current time of year.
- ◆ **Not Rated**

## Examples of drought impacts reported (Aug. 30 – Sept. 18)

- **8/30/17, Jefferson County** – re: poor crop/range conditions “In the last 2 months we only had one cloud drop a little rain. It is very dry. Half of the alfalfa fields are yellow, yield off the rest is low, grasshoppers are eating the alfalfa faster than I can grow it. Rotational grazing has helped, have to supplement feeding periodically”
- **9/7/17, Jefferson County** – re: good crop/range conditions “too much rain last fall-damaged some crops, much snow-located at 5k feet.; wet spring-high mountain grasses; 1 inch rain in June, with heavy hail. nothing since.”
- **9/11/17, Prairie County-** re: soil moisture “My best guess is over 6 feet”
- **9/11/17, McCone County** – “Crops were generally poor with many not being harvested at all. Nearly all winter wheat and some spring wheat was harvested as hay. Pasture conditions are extremely poor. Livestock is being liquidated. Calves are much lighter than normal and being weaned earlier than normal. High temperatures continue along with windy conditions and no humidity. Nearly all reservoirs are dry and many wells not producing adequate livestock water.”

# Discussion/Questions