

# Colorado Climate & Drought Update

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Becky Bolinger

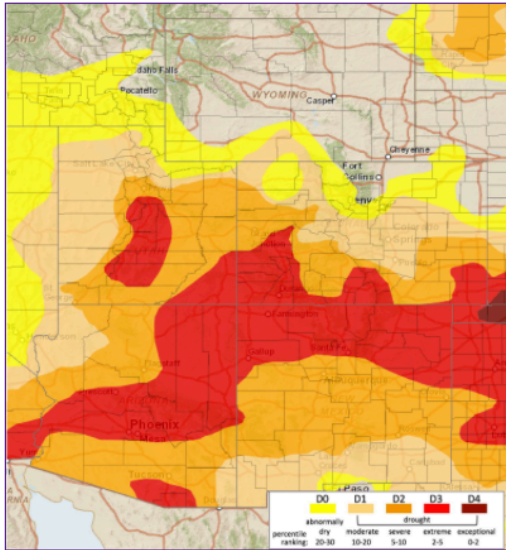
Extension Drought Task Force Webinar  
April 6, 2018



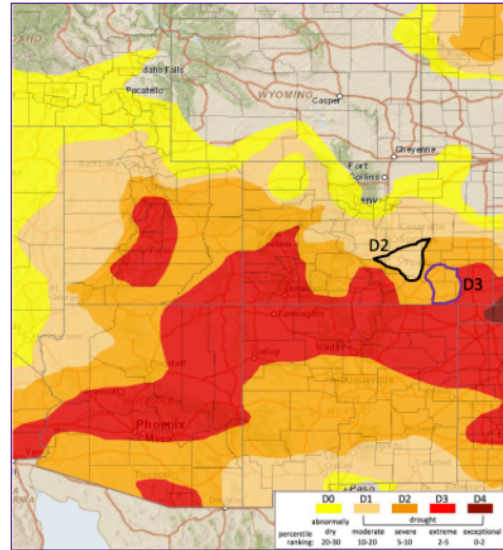
Colorado State University



**NIDIS Intermountain West  
Drought Early Warning System  
April 3, 2018**



**Current U.S. Drought Monitor Depiction** ⓘ



**Recommended Changes** ⓘ

**Summary: April 3, 2018**

The precipitation pattern that has dominated the Intermountain West region since the beginning of the water year continued for the month of March. For the most part, areas to the north saw near to above average precipitation, while areas to the south remained drier than average. A couple of areas of note are the central and northern ranges of Utah, which received widespread near average precipitation and a slight rebound in snowpack percentiles. However, WYTD precipitation at SNOTEL sites throughout UT are still mostly below the 10th percentile.

March typically begins the ramp-up of spring precipitation to help kick-start the growing season. But for many areas of southern CO, eastern NM, and southern AZ, March precipitation was less than 20% of average. As we continue toward summer, these deficits become harder to make up. On the east side of the IMW, WYTD precipitation deficits from southeast CO and eastern NM range from 2 to 3.5 inches. Around the Four Corners and down into the higher elevations of NM and AZ, WYTD deficits range from 4 to 9 inches - amounts that are unlikely to be made up prior to the start of the monsoon season.

Fire danger has been a major concern, especially for eastern areas of the IMW that saw a much wetter than average summer (which helped grow fuels)

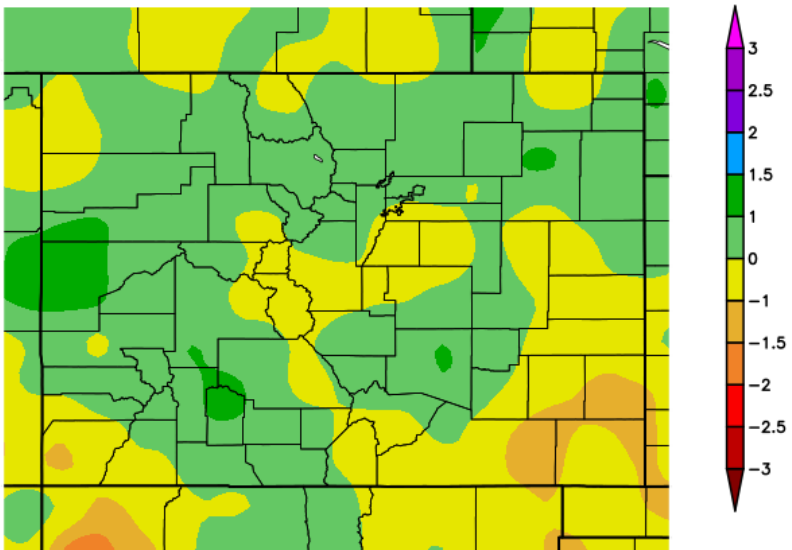
# Recent Climate

February and March  
temperature and  
precipitation

[climate.colostate.edu/~drought](http://climate.colostate.edu/~drought)



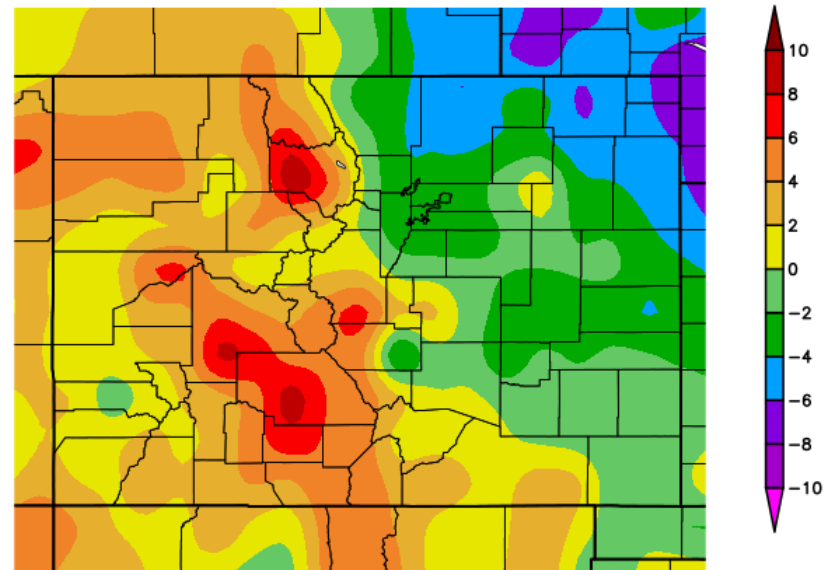
Monthly SPI  
2/1/2018 - 2/28/2018



Generated 3/20/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
2/1/2018 - 2/28/2018

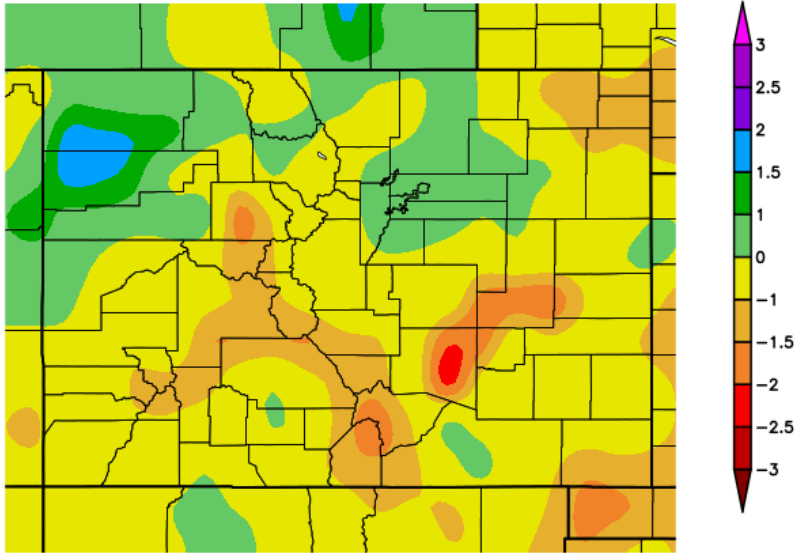


Generated 3/20/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers



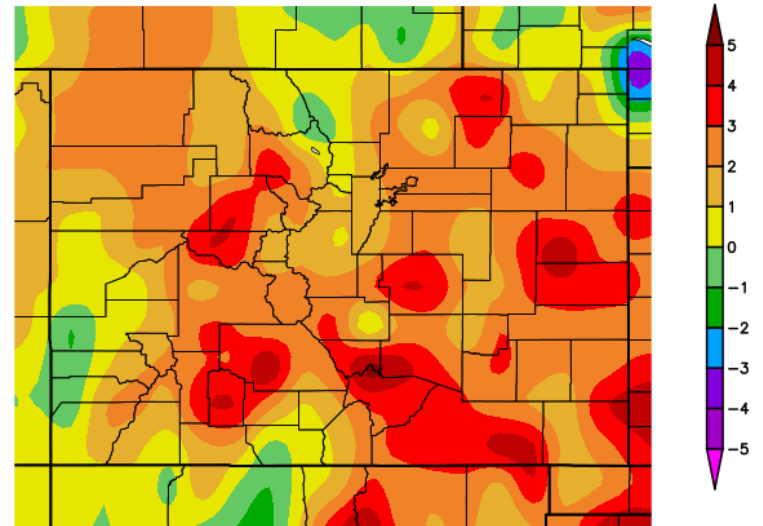
### Monthly SPI 3/1/2018 - 3/31/2018



Generated 4/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

### Departure from Normal Temperature (F) 3/1/2018 - 3/31/2018



Generated 4/6/2018 at HPRCC using provisional data.

NOAA Regional Climate Centers

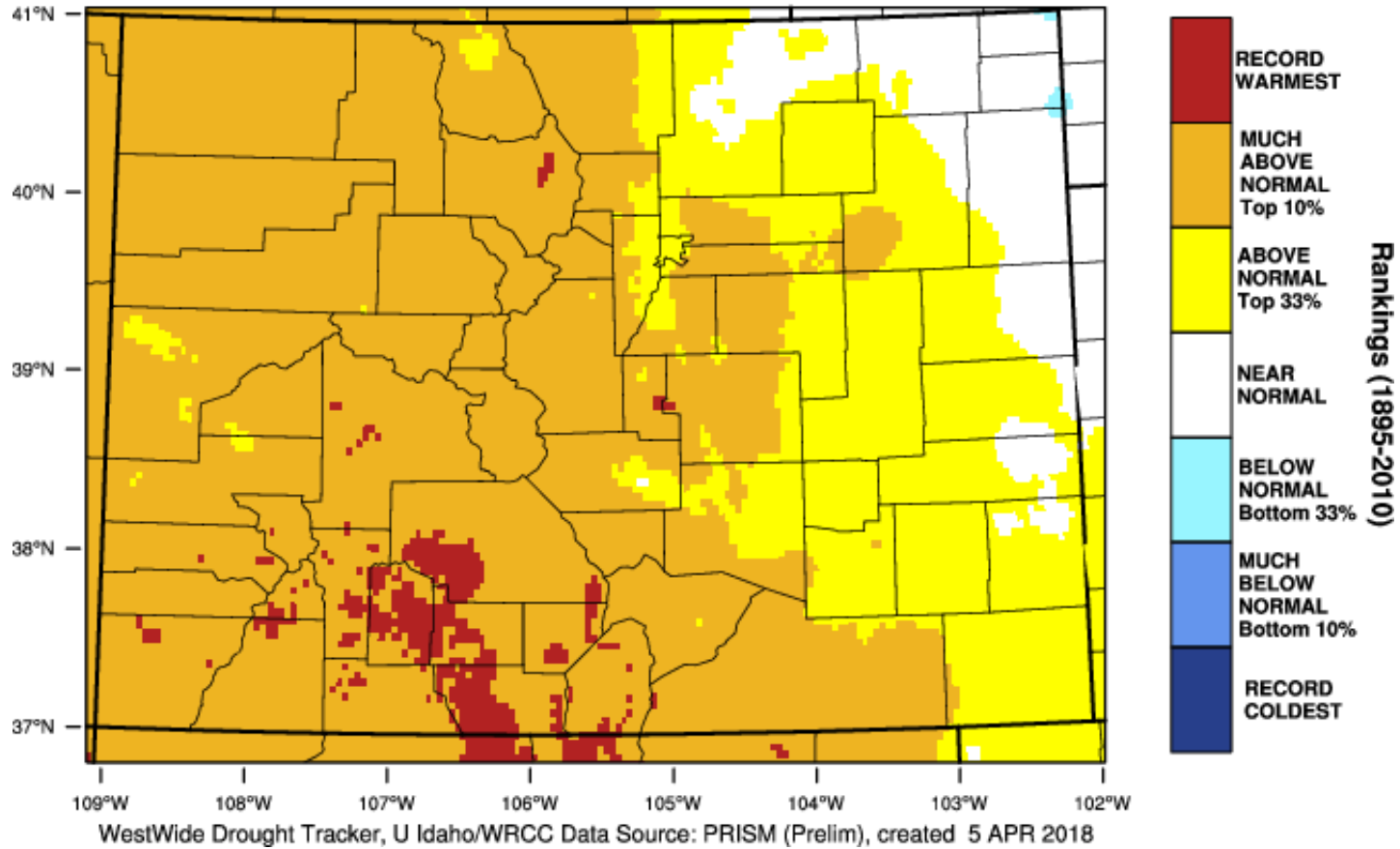




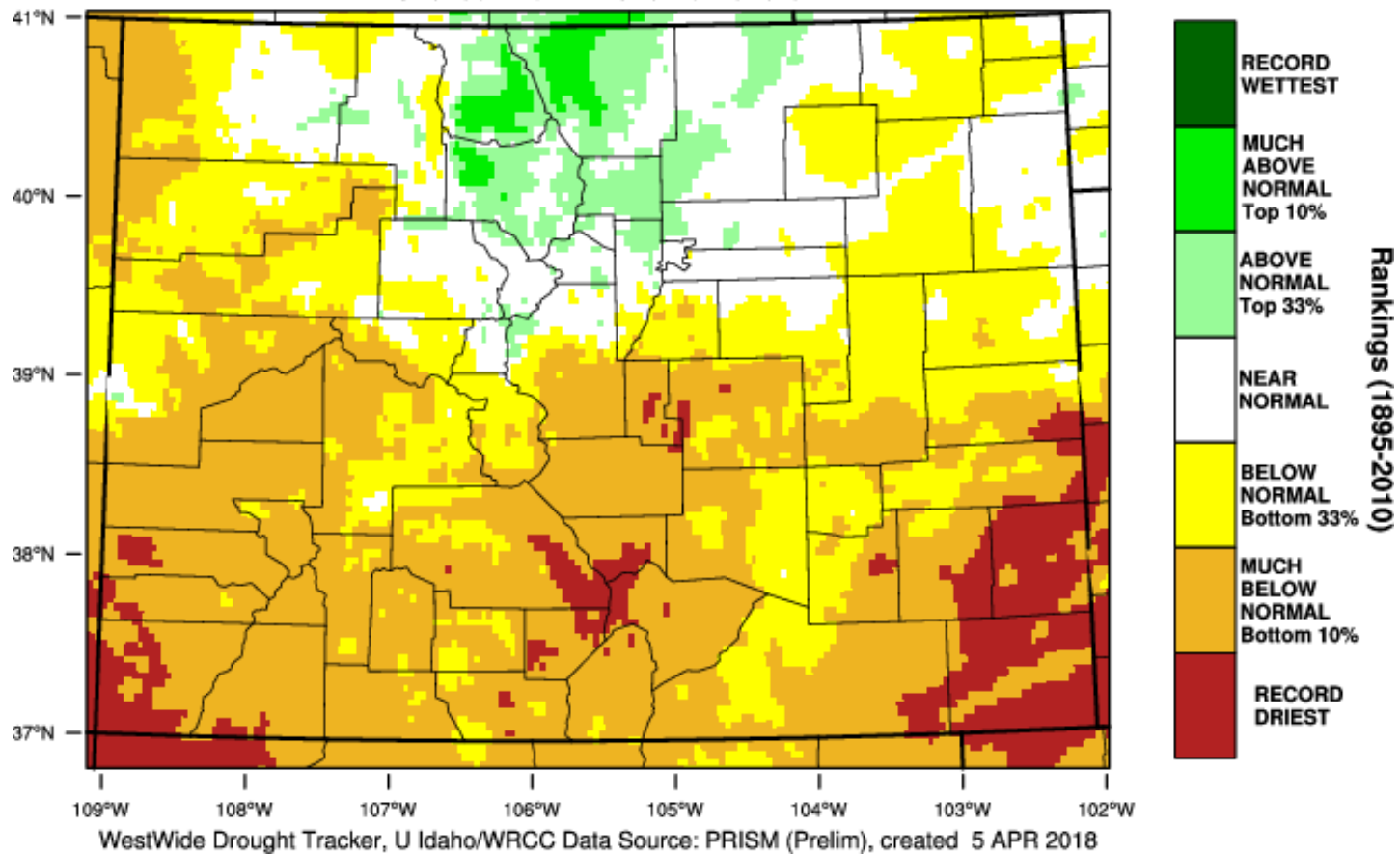
# Water-Year-to-date



### Colorado - Mean Temperature October-March 2018 Percentile

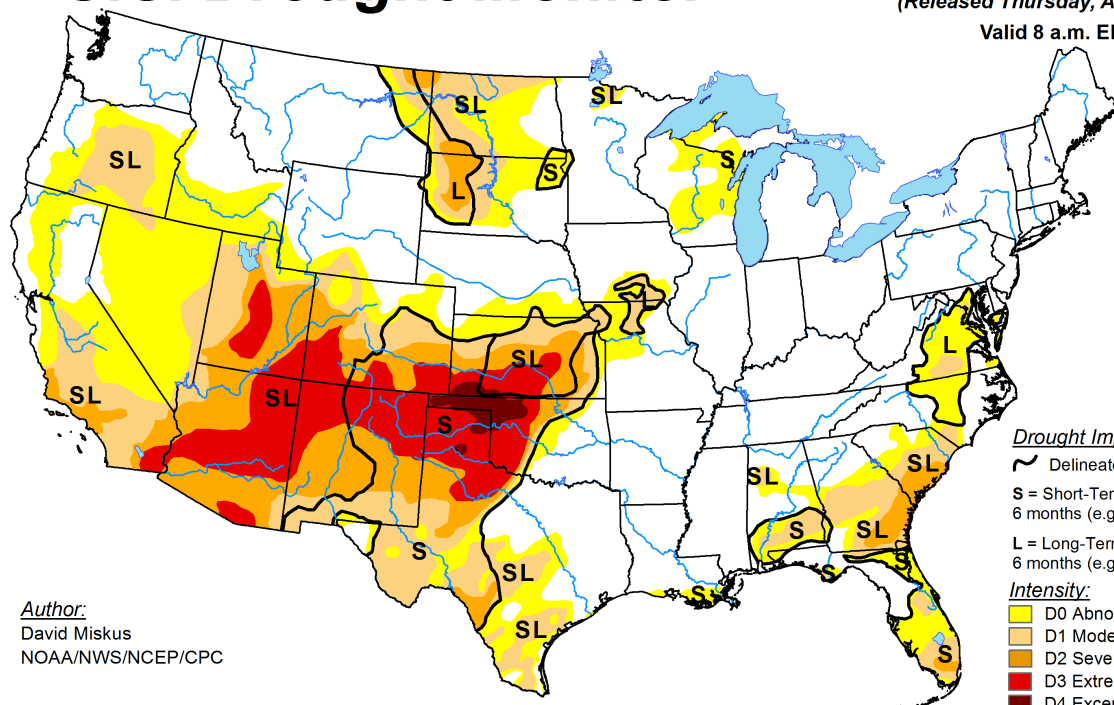


### Colorado - Precipitation October-March 2018 Percentile



# U.S. Drought Monitor

April 3, 2018  
(Released Thursday, Apr. 5, 2018)  
Valid 8 a.m. EDT



Author:  
David Miskus  
NOAA/NWS/NCEP/CPC

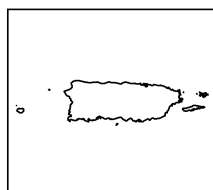
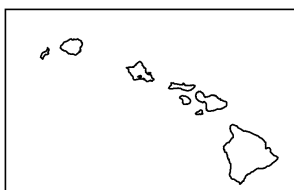
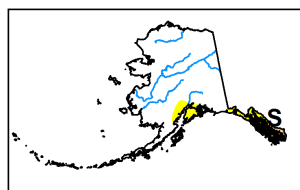
Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

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.



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

## Drought

### Evolution and current drought conditions



# U.S. Drought Monitor Colorado

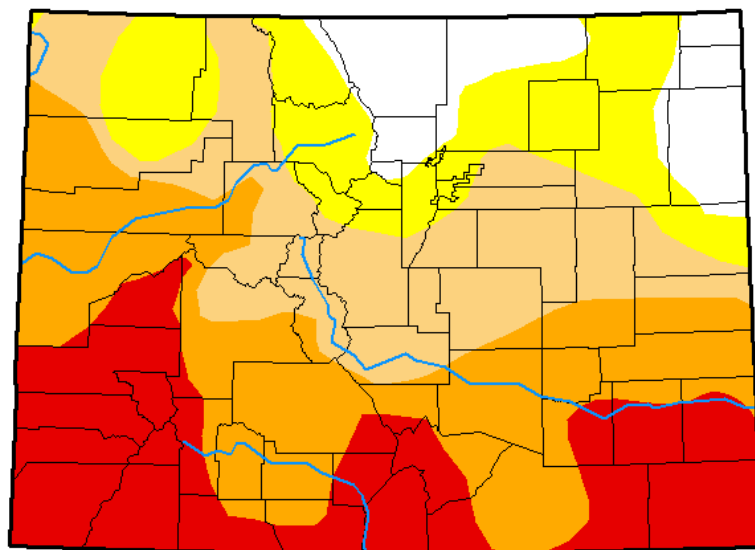
**April 3, 2018**

(Released Thursday, Apr. 5, 2018)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|  | None  | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4   |
|--|-------|-------|-------|-------|-------|------|
| <b>Current</b>                                     | 9.65  | 90.35 | 73.67 | 51.56 | 23.63 | 0.00 |
| <b>Last Week</b><br><i>03-27-2018</i>              | 9.65  | 90.35 | 73.50 | 48.55 | 20.61 | 0.00 |
| <b>3 Months Ago</b><br><i>01-02-2018</i>           | 6.57  | 93.43 | 33.53 | 7.27  | 0.00  | 0.00 |
| <b>Start of Calendar Year</b><br><i>01-02-2018</i> | 6.57  | 93.43 | 33.53 | 7.27  | 0.00  | 0.00 |
| <b>Start of Water Year</b><br><i>09-26-2017</i>    | 67.63 | 32.37 | 3.72  | 0.00  | 0.00  | 0.00 |
| <b>One Year Ago</b><br><i>04-04-2017</i>           | 51.89 | 48.11 | 21.88 | 3.03  | 0.00  | 0.00 |



Intensity:

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- D3 Extreme Drought
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*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

Author:

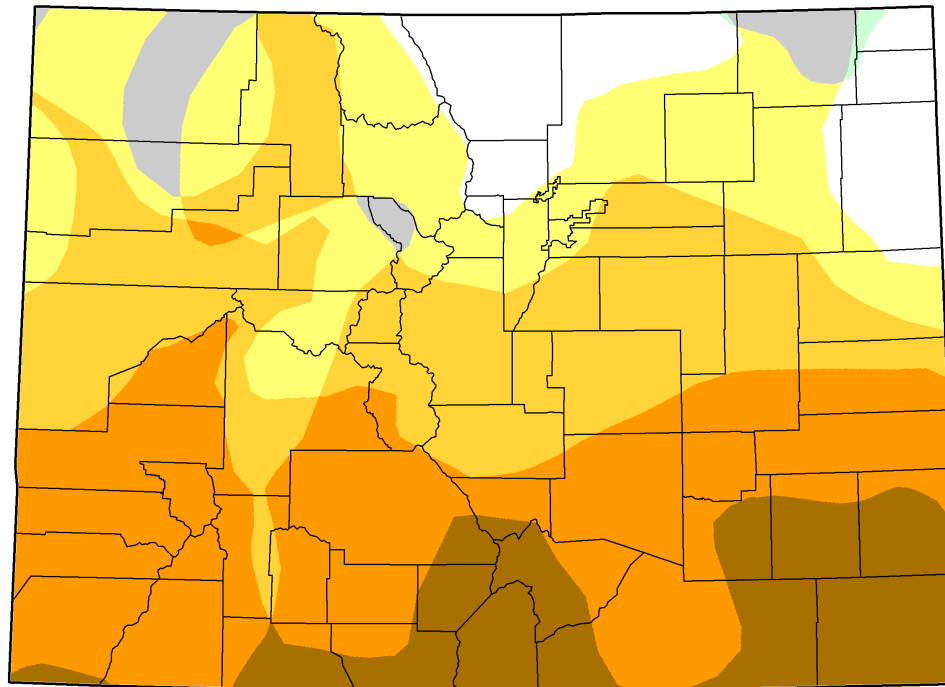
David Miskus  
NOAA/NWS/NCEP/CPC



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



### U.S. Drought Monitor Class Change - Colorado 6 Months



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

April 3, 2018  
compared to  
October 17, 2017

<http://droughtmonitor.unl.edu>







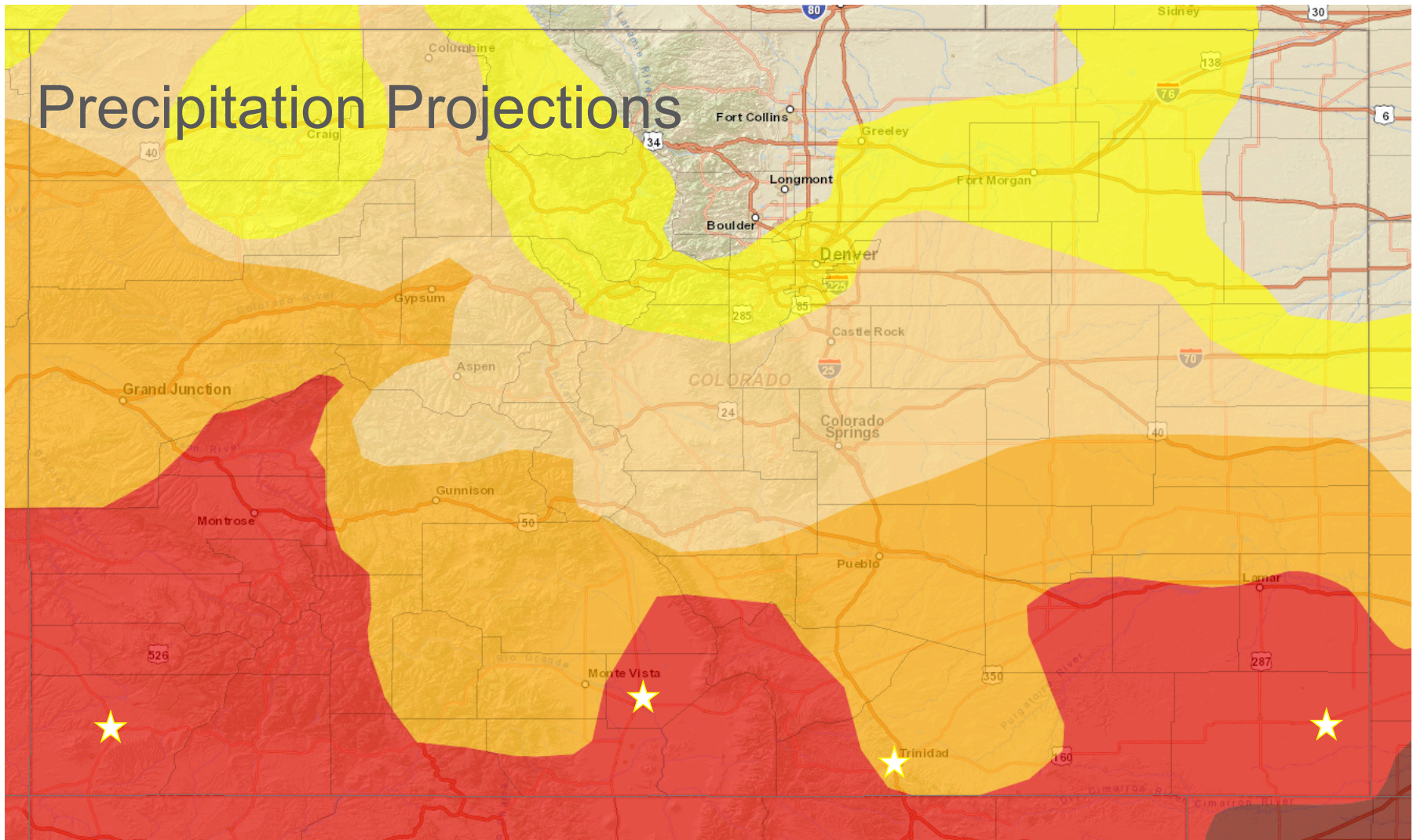
## Outlook

Precipitation  
Projections and  
Climate Prediction  
Center's Outlook

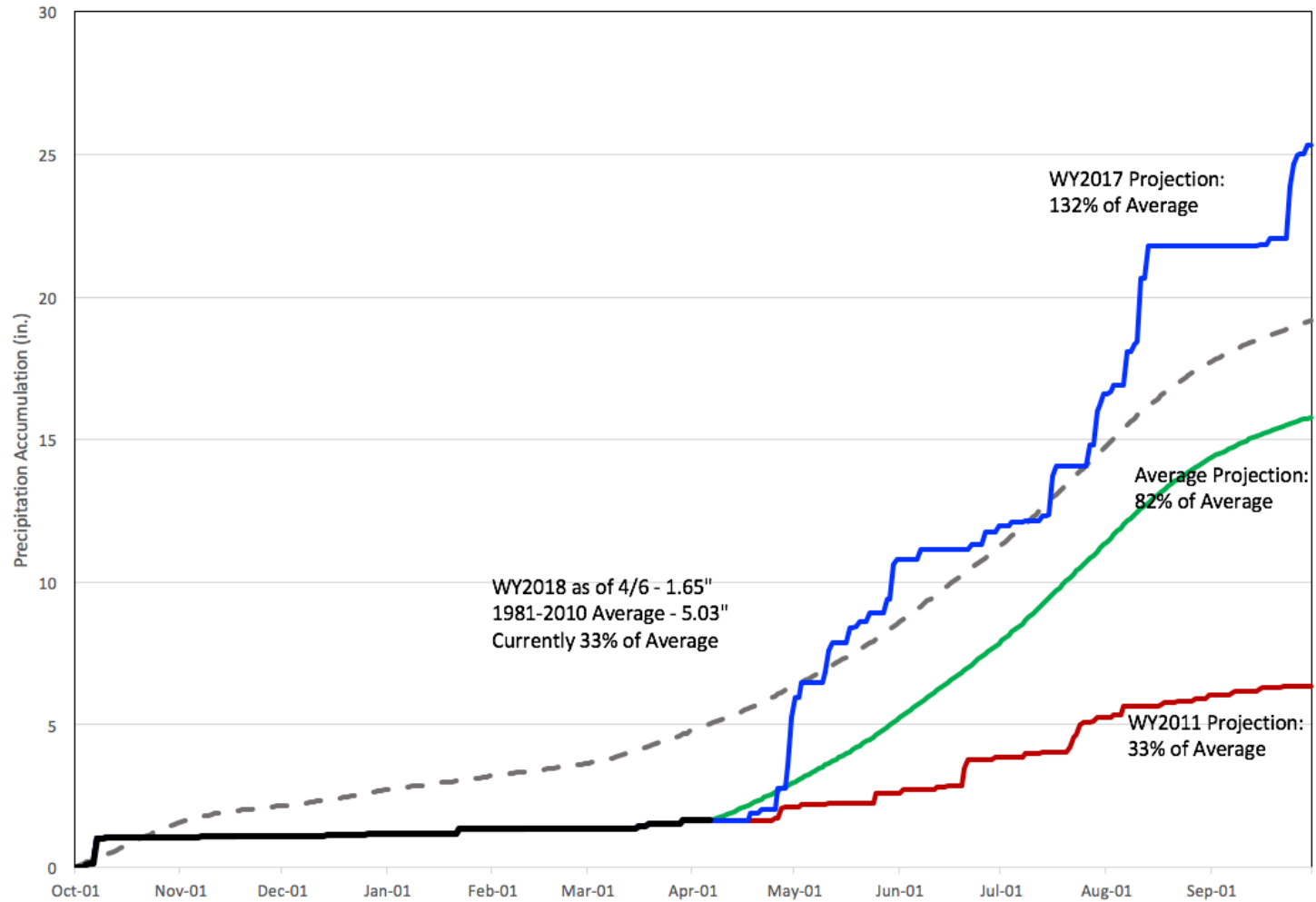




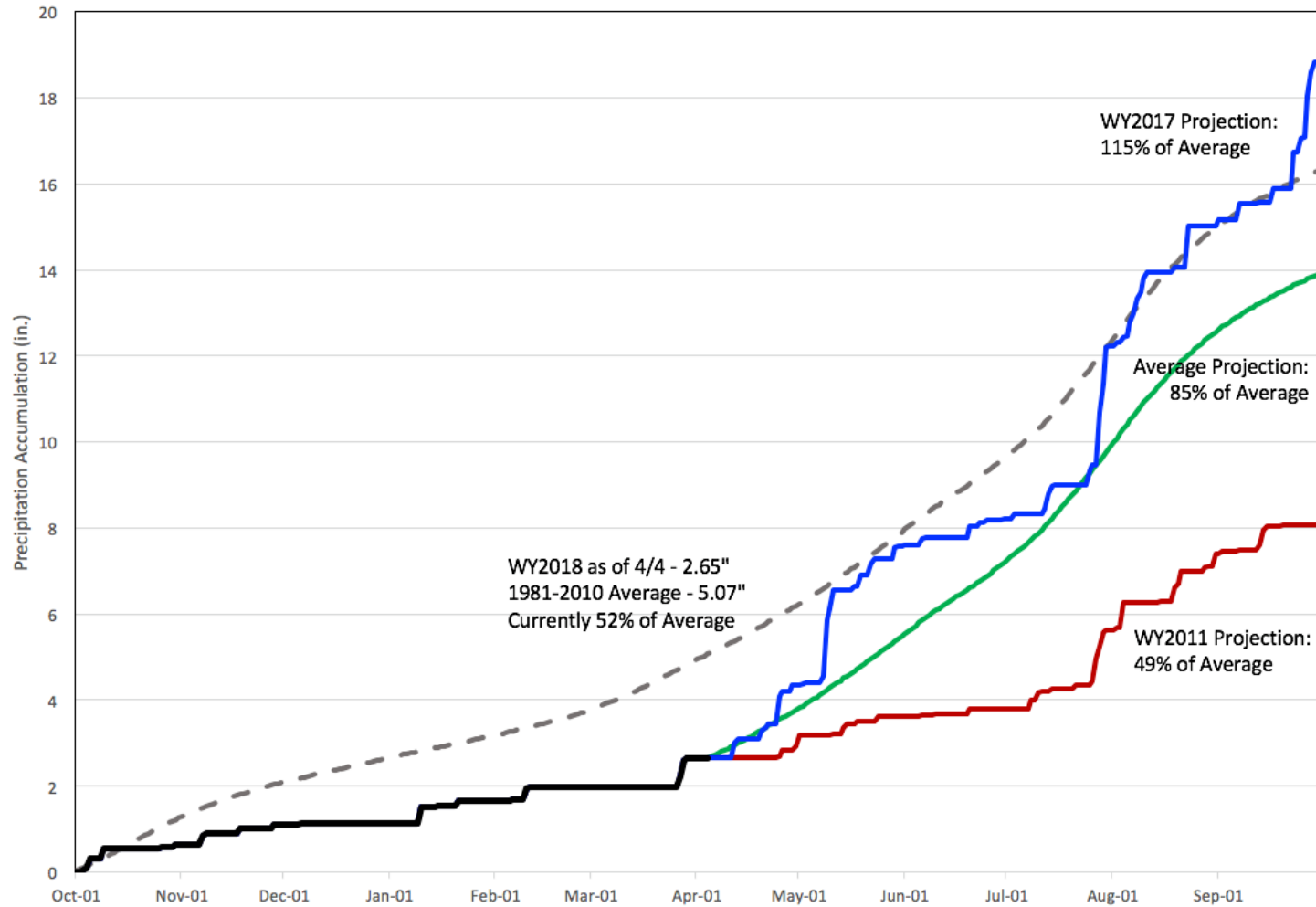
# Precipitation Projections



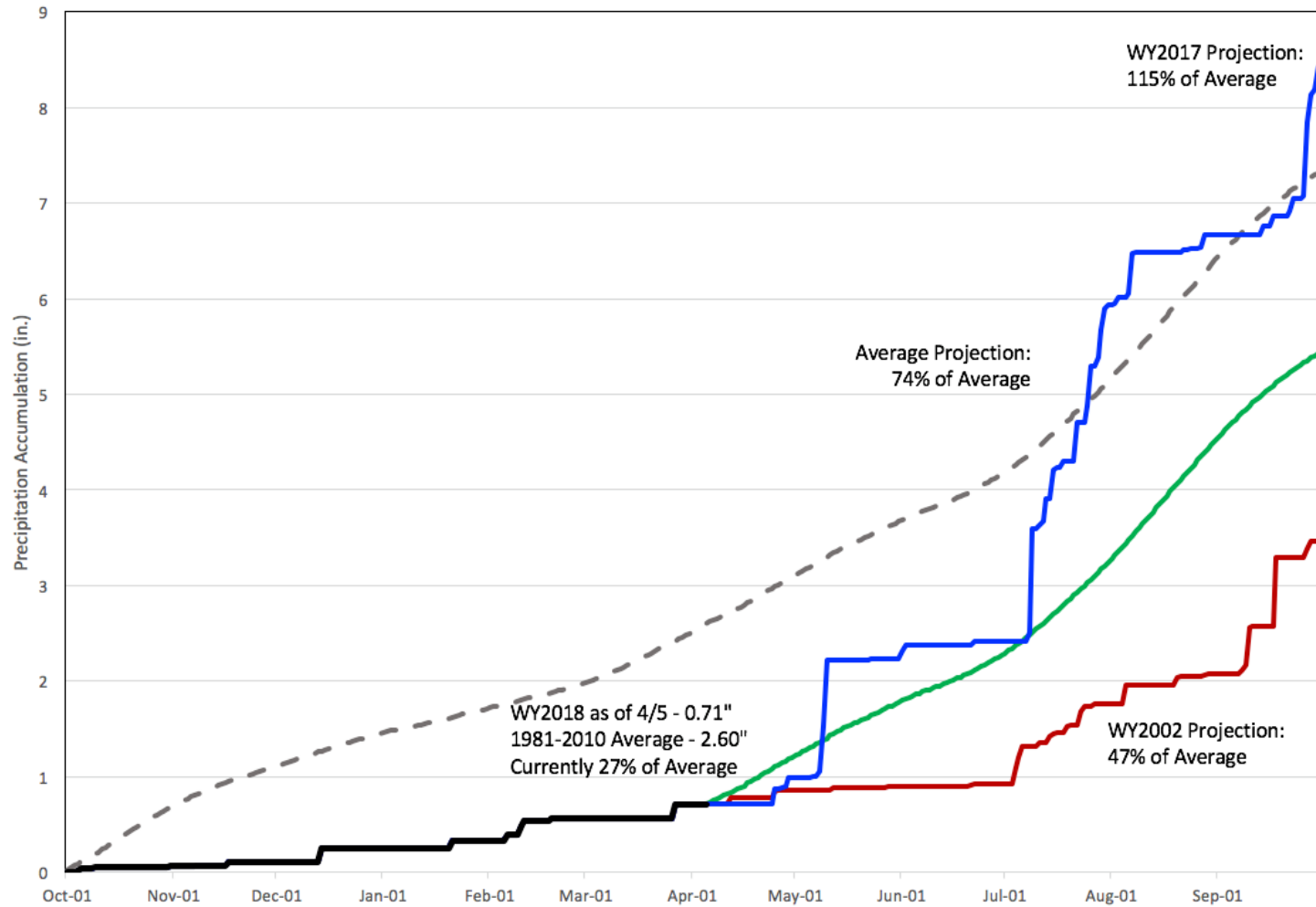
### WALSH 1 W Precipitation Accumulation Projections



### TRINIDAD Precipitation Accumulation Projections



### ALAMOSA SAN LUIS AP Precipitation Accumulation Projections



WY2017 Projection:  
115% of Average

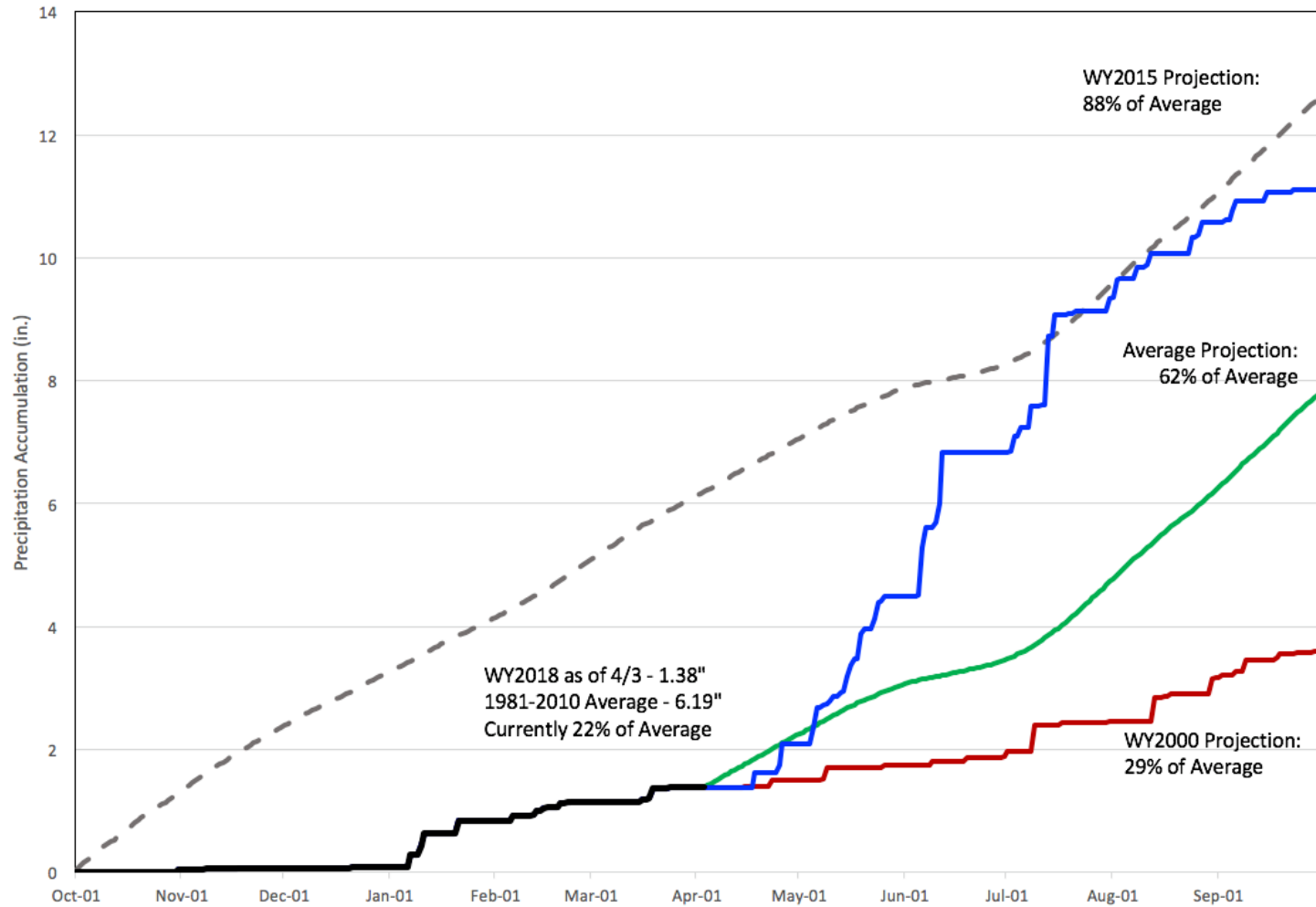
Average Projection:  
74% of Average

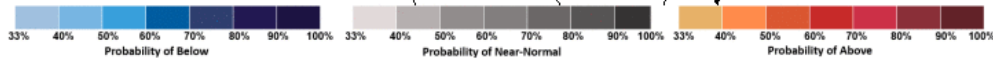
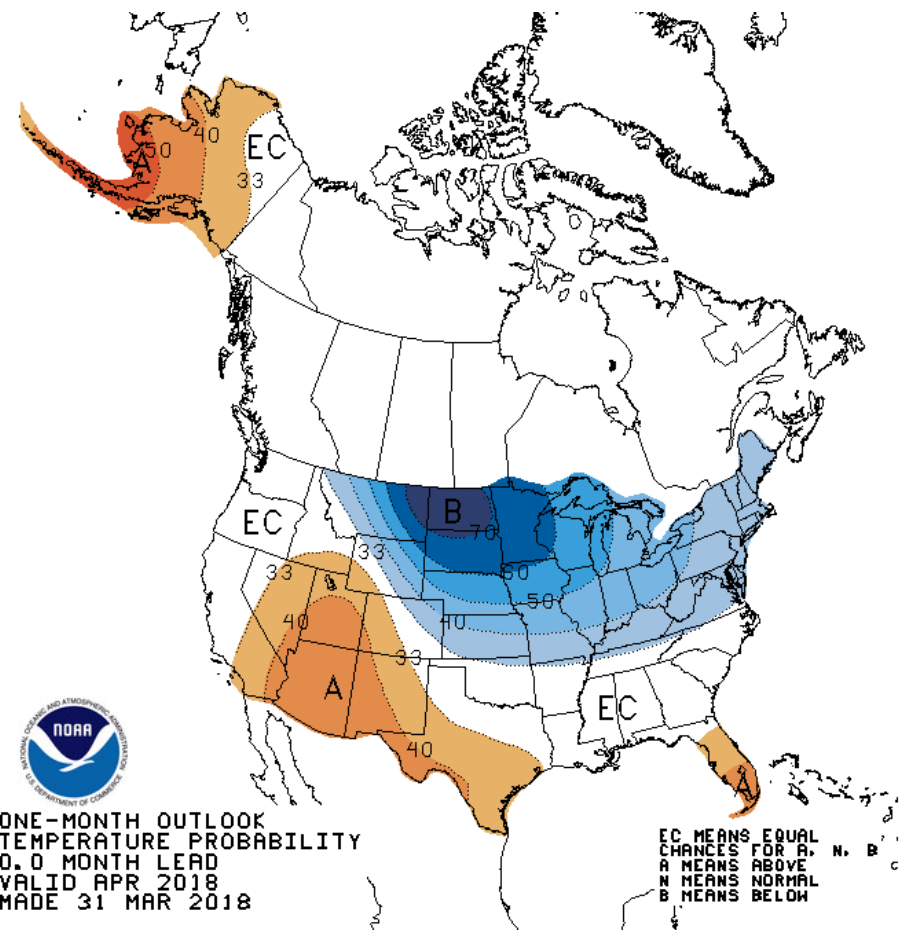
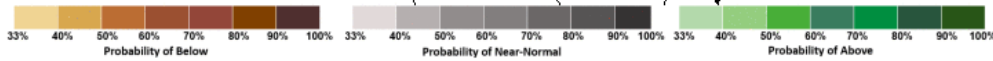
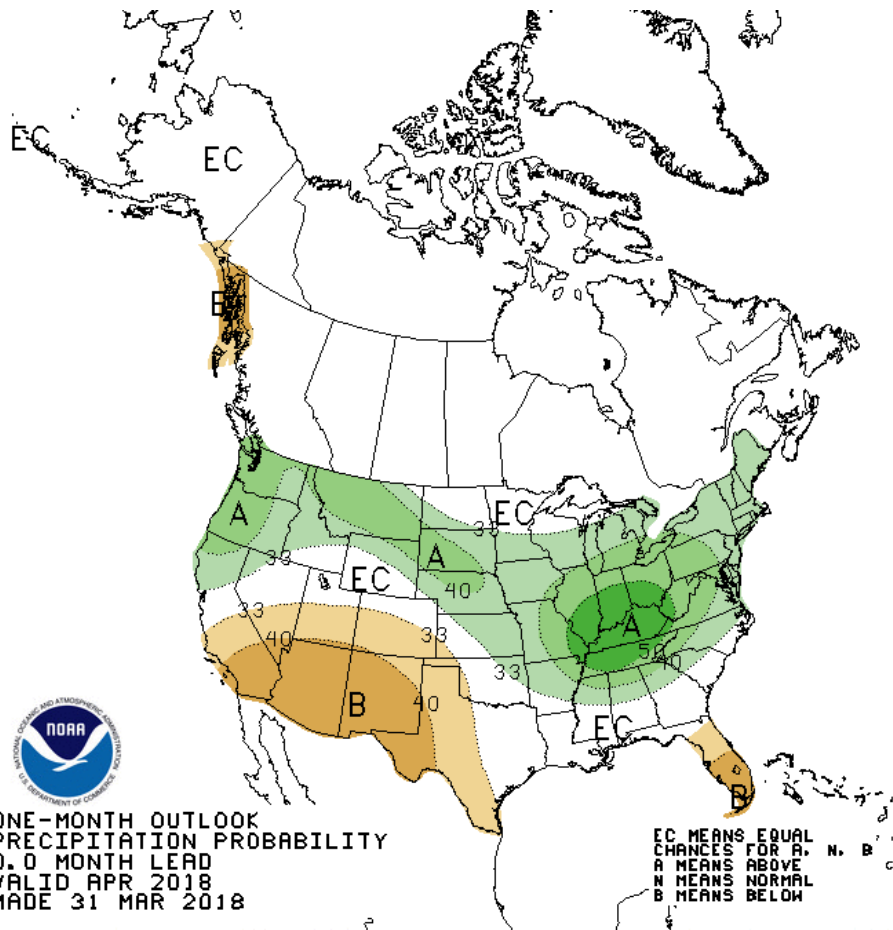
WY2018 as of 4/5 - 0.71"  
1981-2010 Average - 2.60"  
Currently 27% of Average

WY2002 Projection:  
47% of Average

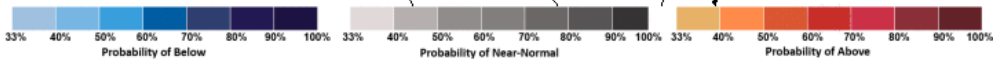
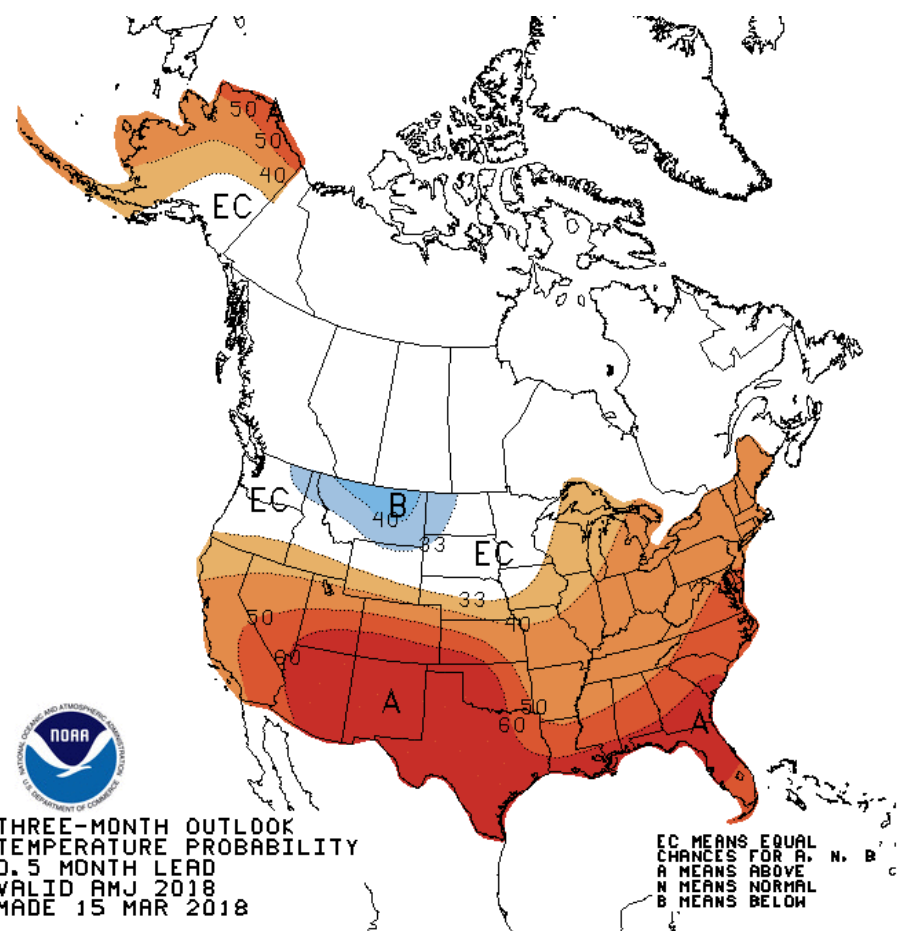
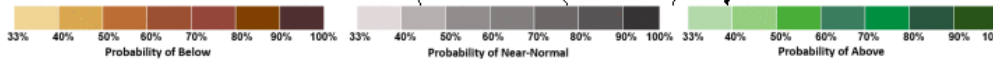
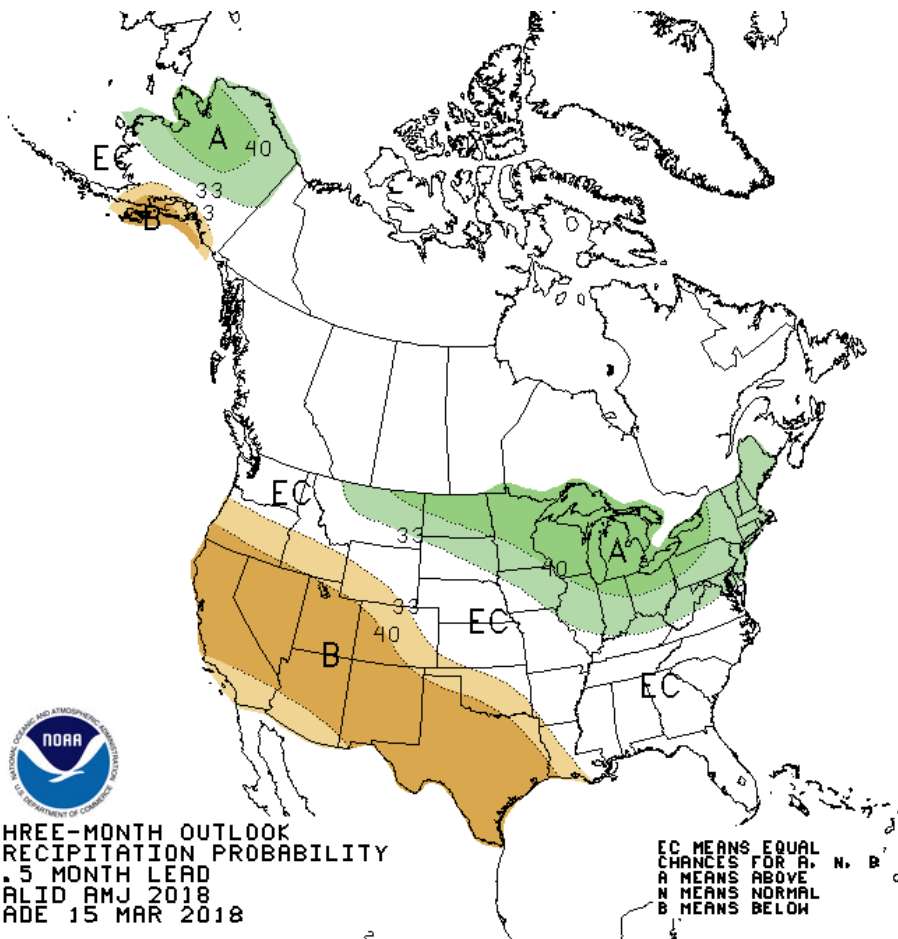


### CORTEZ Precipitation Accumulation Projections











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**970.491.8506**

**Drought Summary:**  
**<http://climate.colostate.edu/~drought>**

**Please call or email me your impacts!**

**Thank you**



Colorado State University