

CBRFC Forecast Update: Fontenelle Reservoir

April 25, 2013

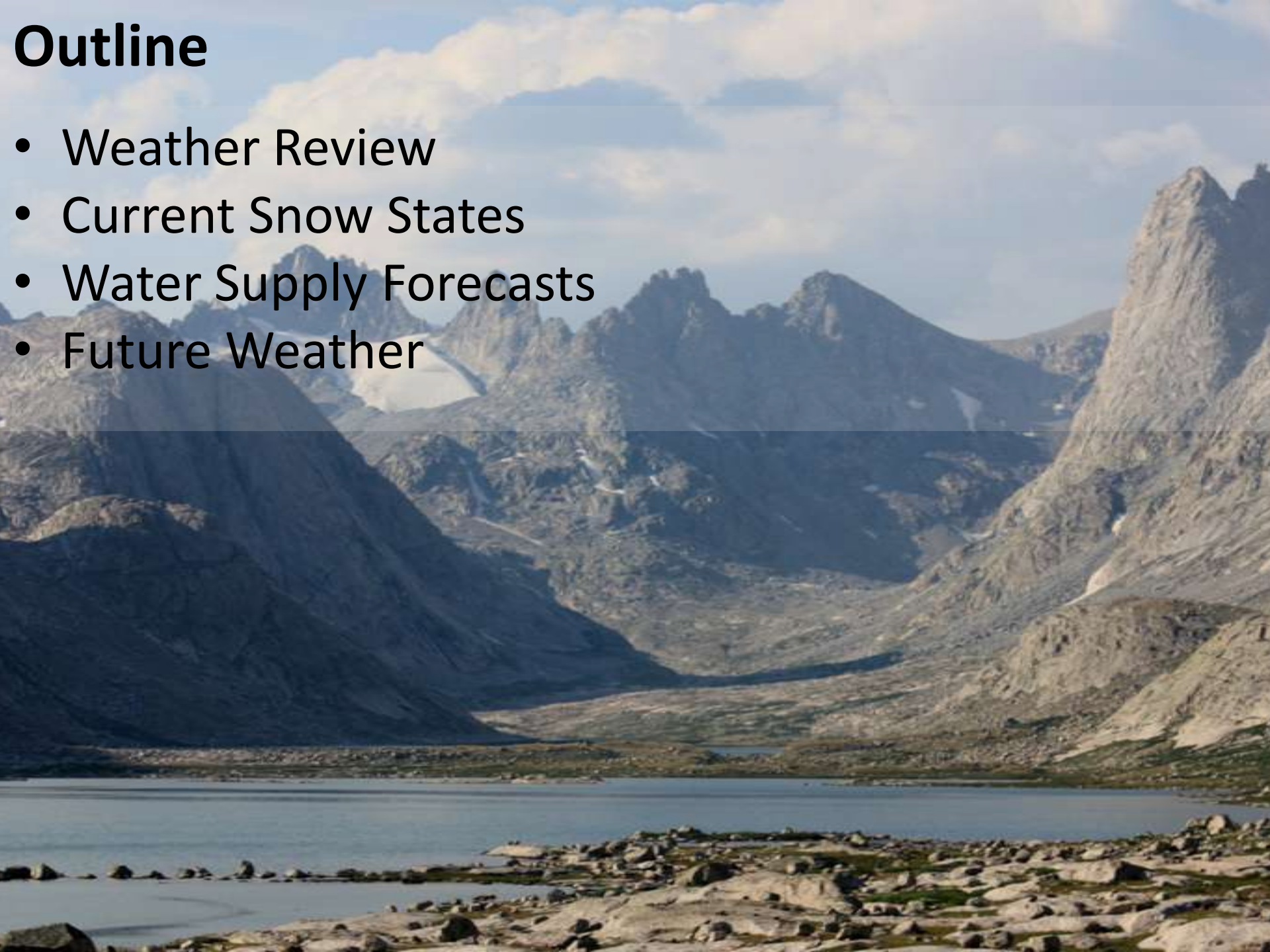
Ashley Nielson

NWS Colorado Basin River Forecast Center

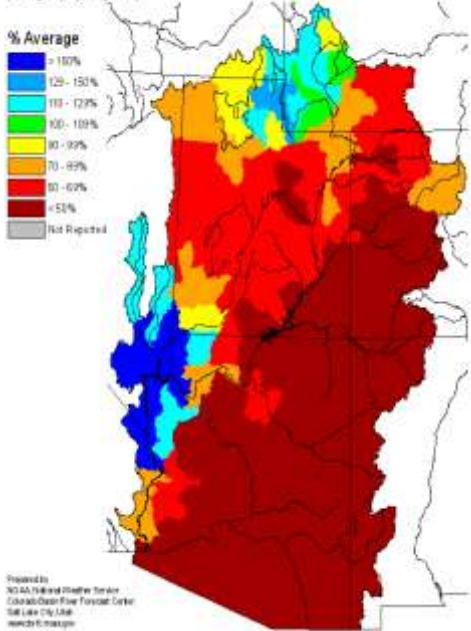


Outline

- Weather Review
- Current Snow States
- Water Supply Forecasts
- Future Weather



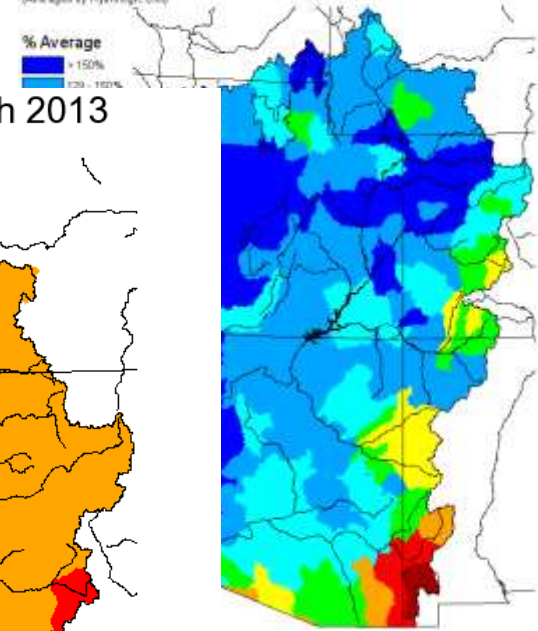
Monthly Precipitation for October 2012
(Averaged by Hydrologic Unit)



Monthly Precipitation for November 2012
(Averaged by Hydrologic Unit)

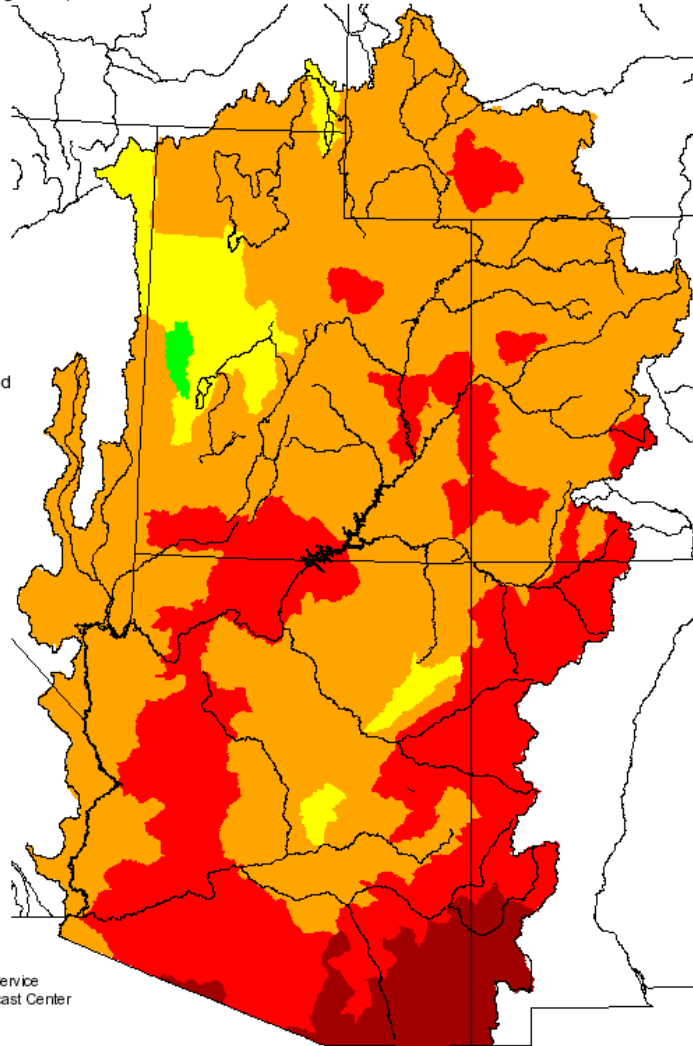
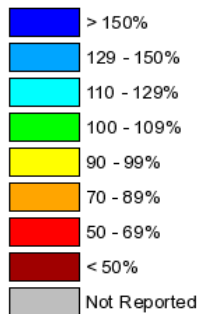


Monthly Precipitation for December 2012
(Averaged by Hydrologic Unit)

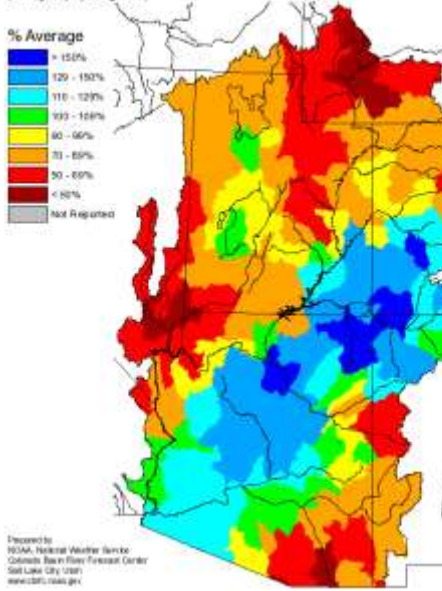


Seasonal Precipitation, October 2012 - March 2013 (Averaged by Hydrologic Unit)

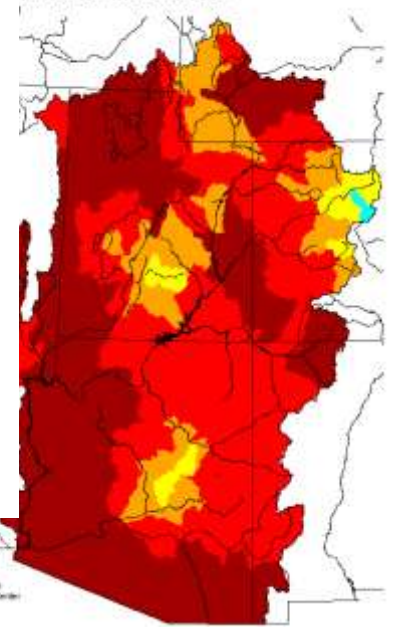
% Average



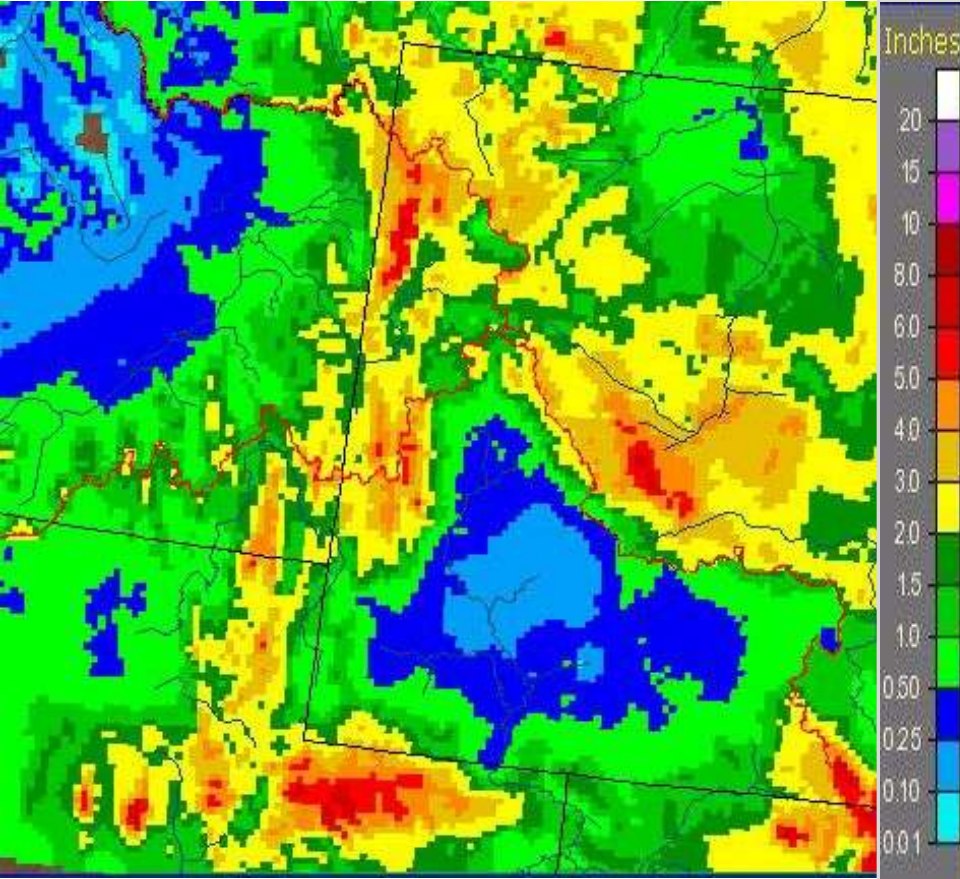
Monthly Precipitation for January 2013
(Averaged by Hydrologic Unit)



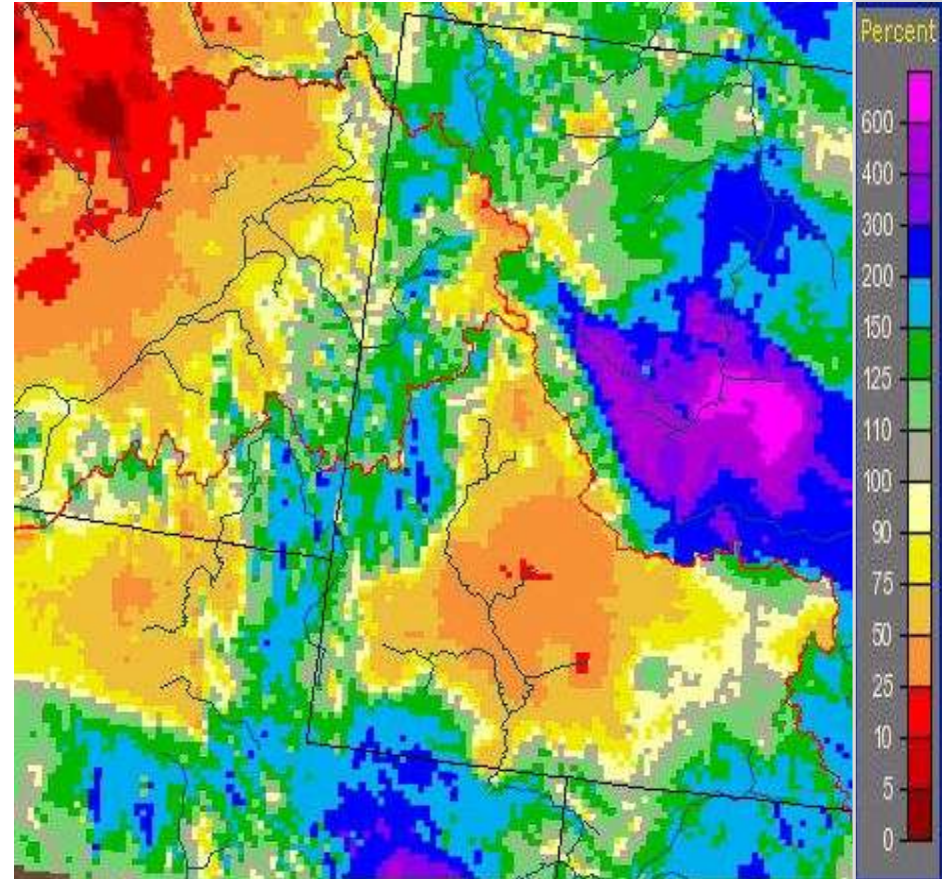
Monthly Precipitation for March 2013



April Precipitation: Month to Date



OBSERVED



% OF NORMAL

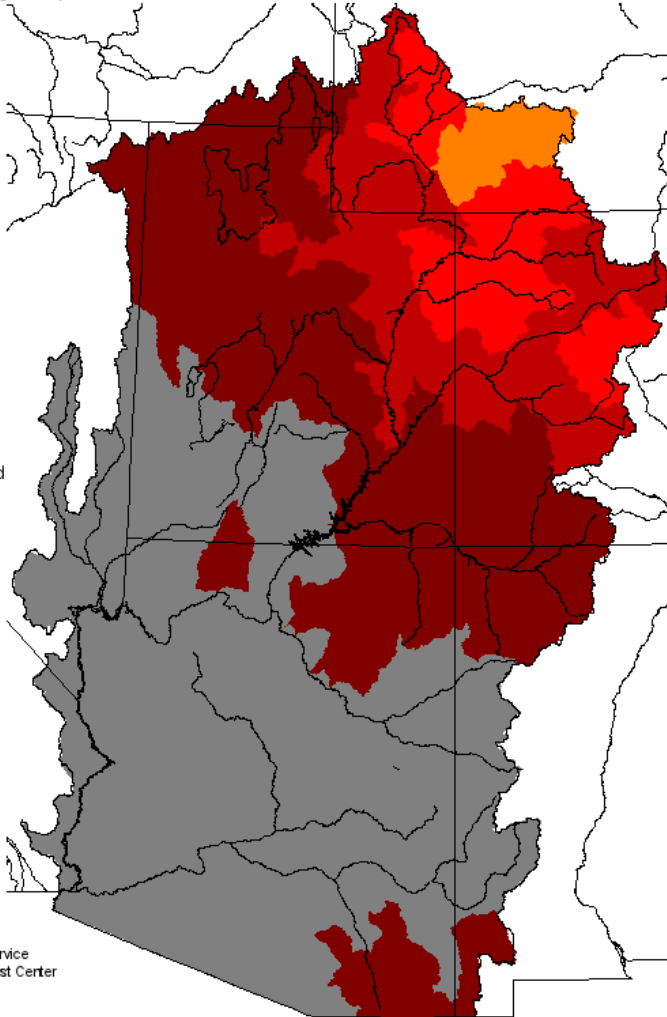
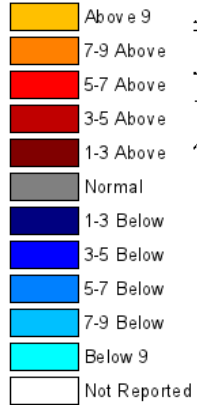
Temperatures:

Significant difference between March/April 2012 and March/April 2013

Monthly Max Temp Deviation for March 2012

(Averaged by Hydrologic Unit)

Degrees (F)

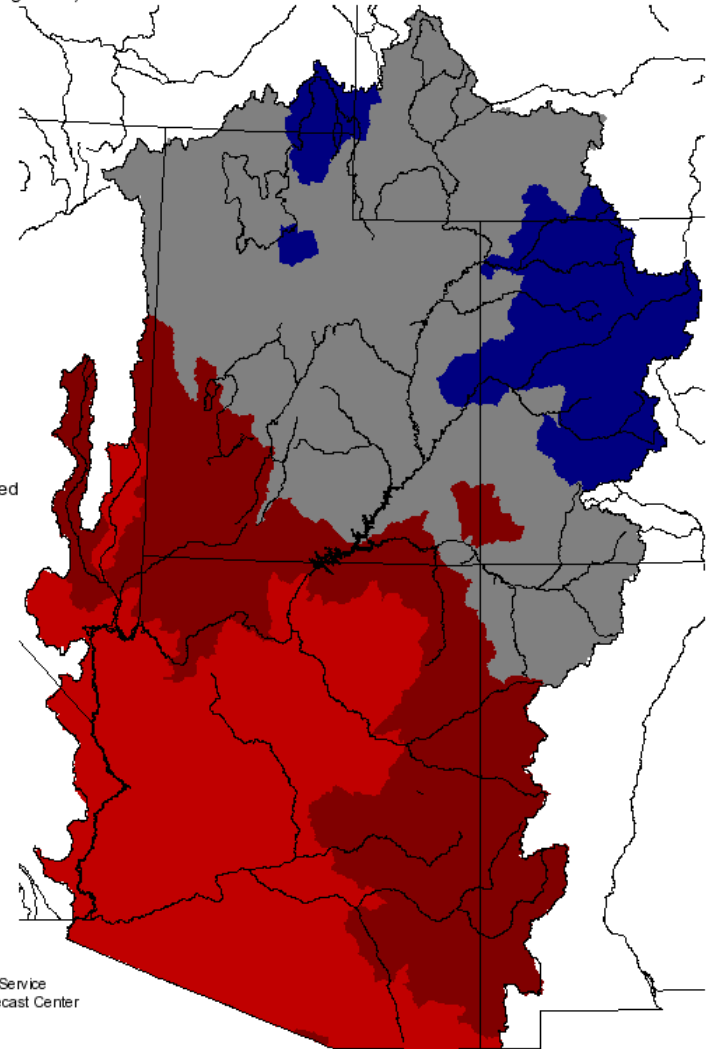


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbrfc.noaa.gov

Monthly Max Temp Deviation for March 2013

(Averaged by Hydrologic Unit)

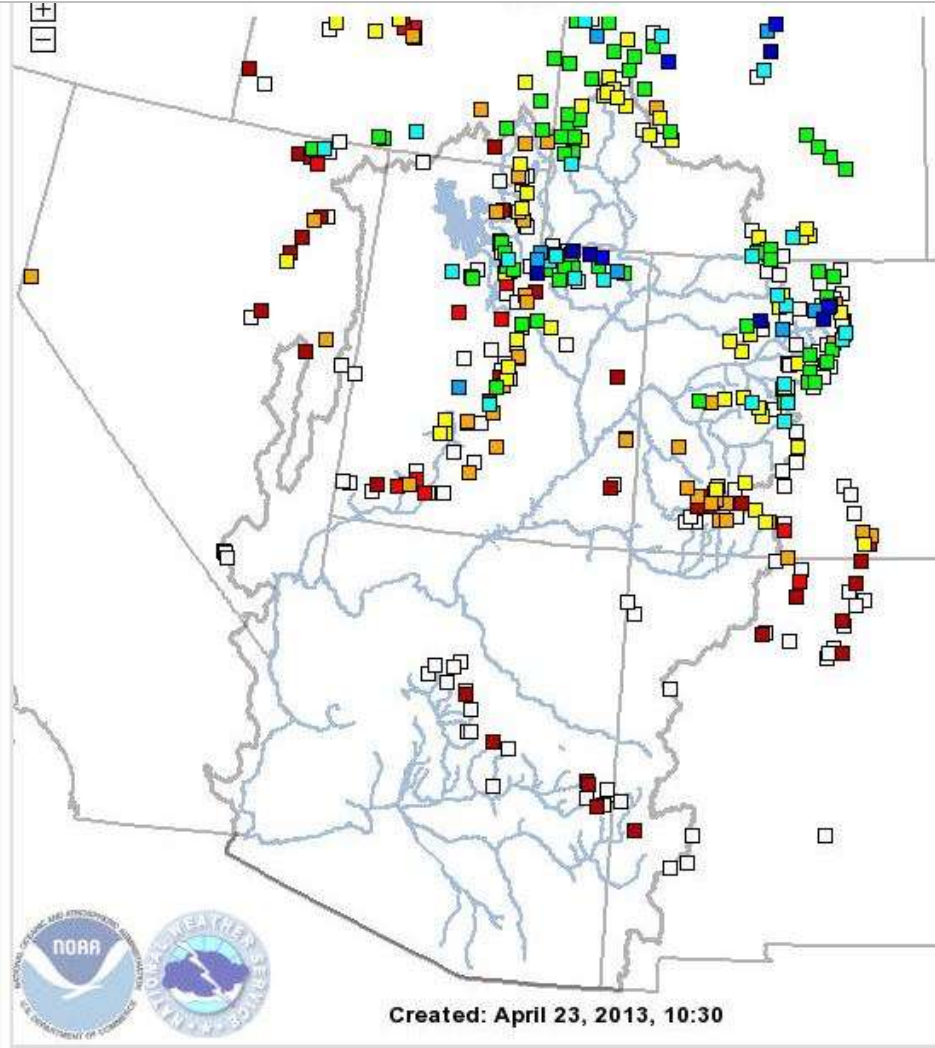
Degrees (F)



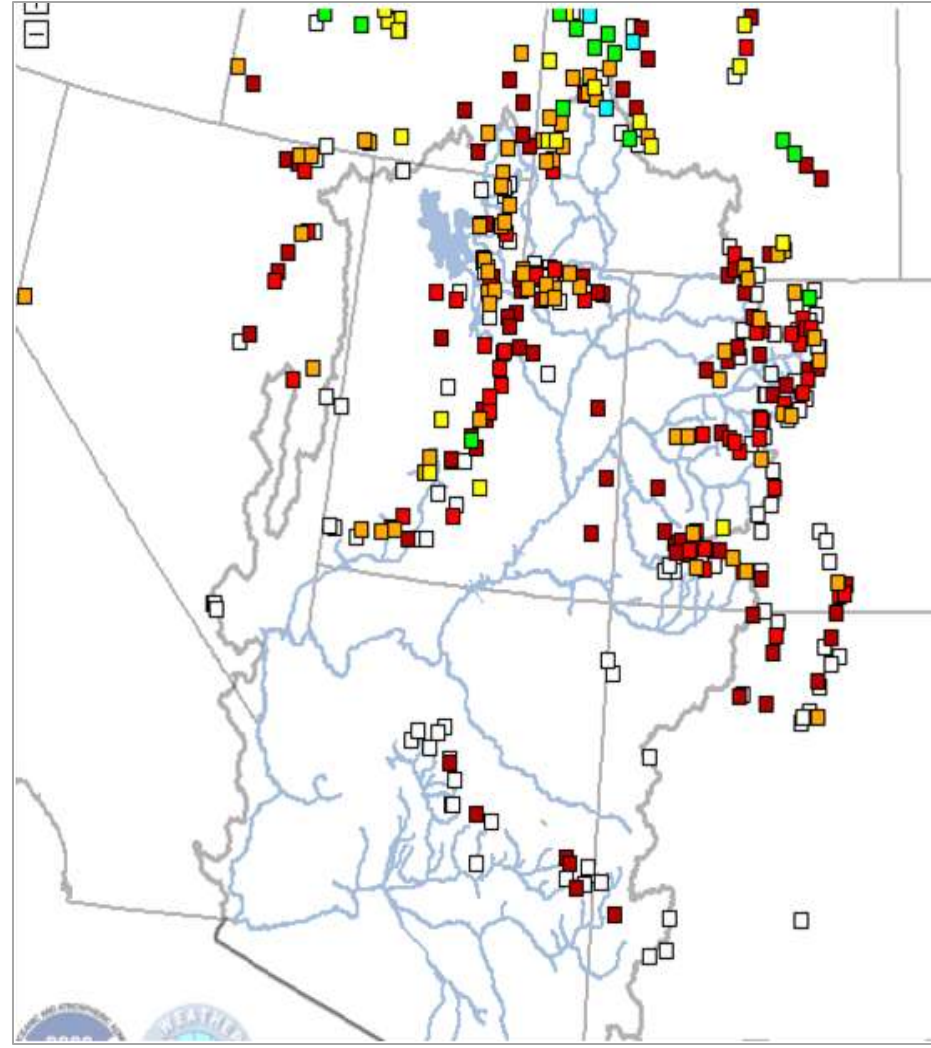
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Snow

Snow Point Classification: ○ Percentiles ● Percent Average ○ Percent Median
□ NA ■ < 25% ■ 25-50% ■ 50-75% ■ 75-90% ■ 90-110% ■ 110-125% ■ 125-150% ■ 150-175% ■ >175%



April 23, 2013



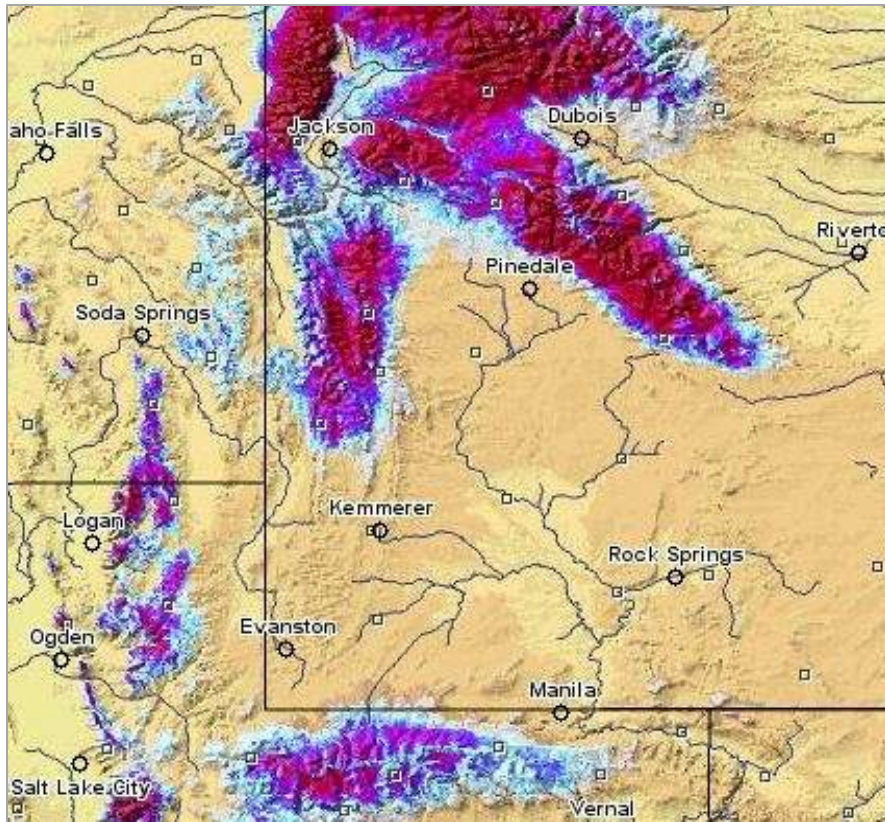
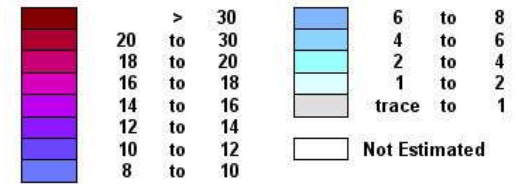
April 17, 2012

Web Reference: <http://www.cbrfc.noaa.gov/gmap/gmapm.php?scon=checked>

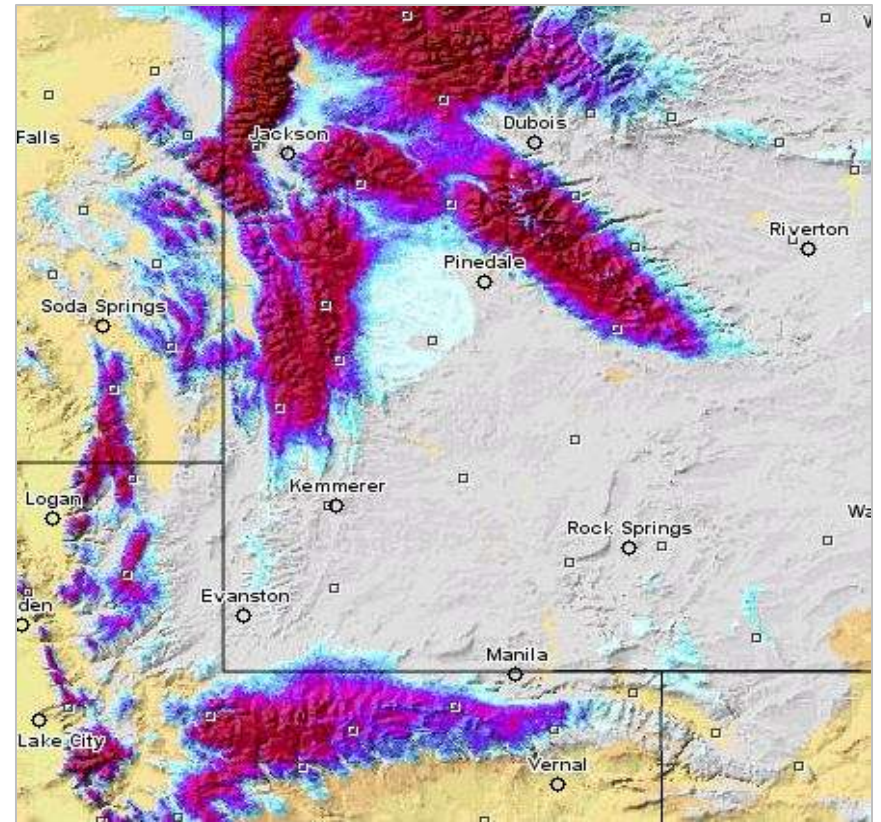
Snow: Upper Green

Retained and accumulated the snowpack longer compared to 2012

Inches of water equivalent

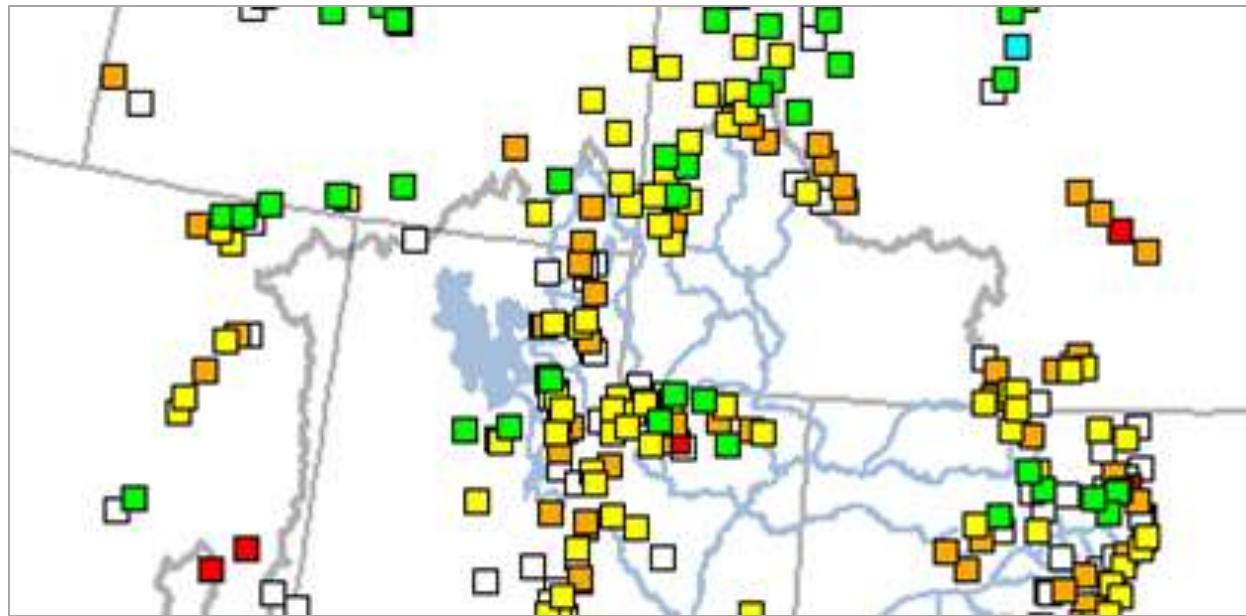


April 18 2012



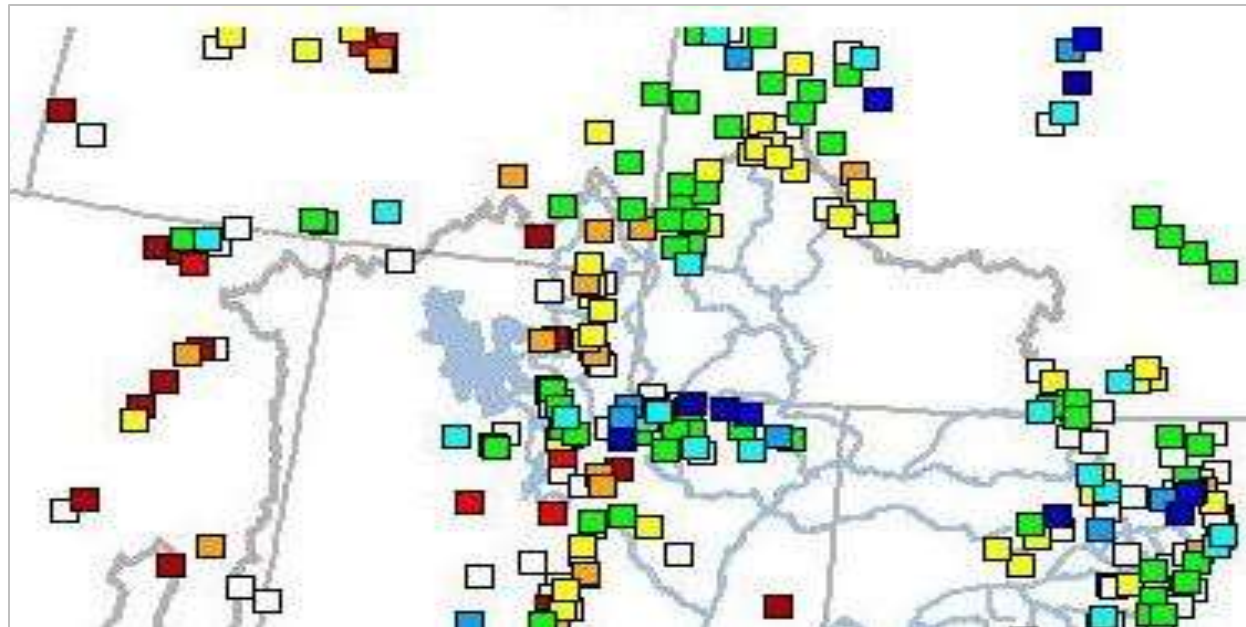
April 23 2013

Snow: April Retention and Building of Snowpack



April 1, 2013:

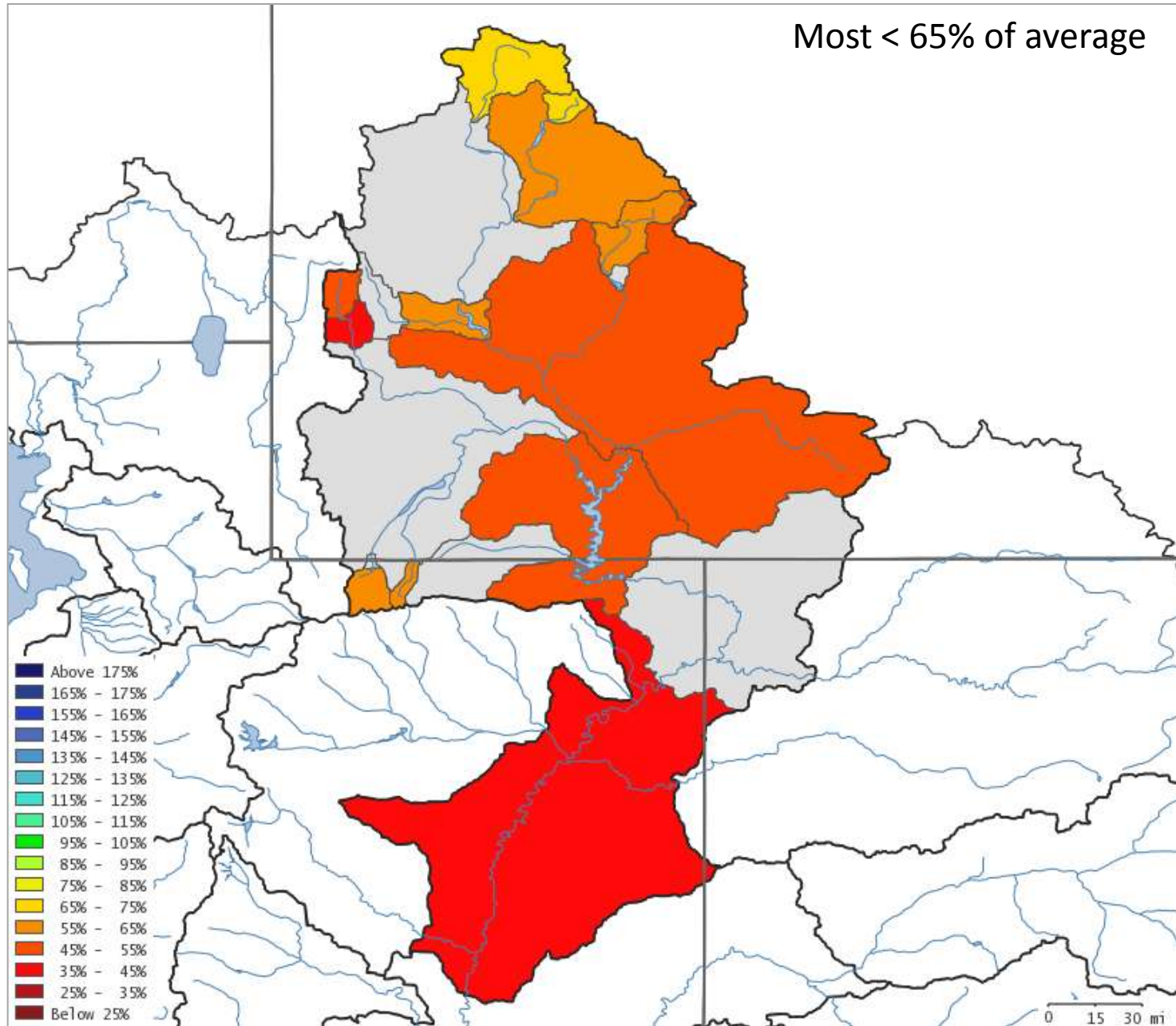
Above Fontenelle = 75%



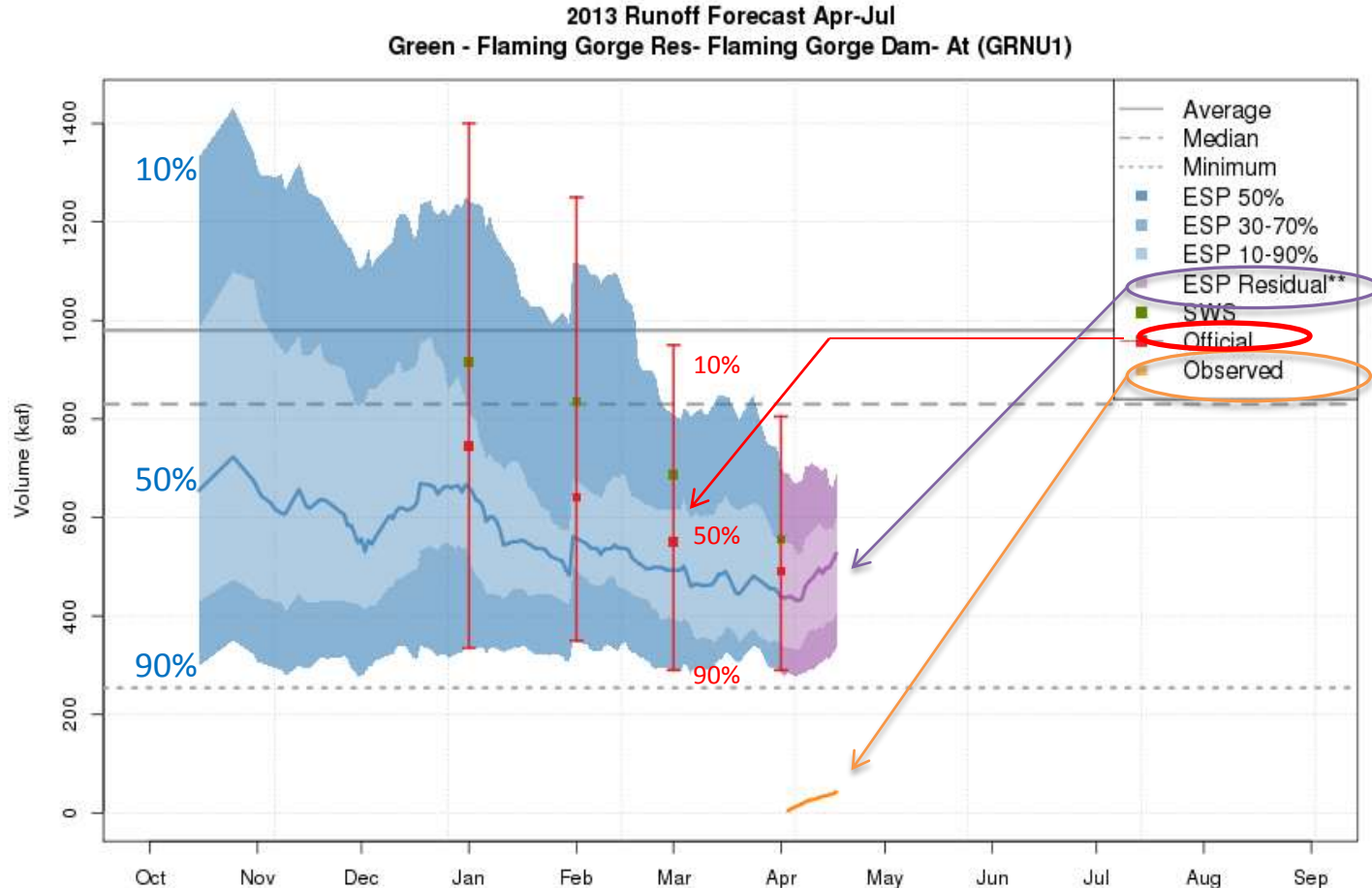
April 23, 2013

Above Fontenelle = 90%

April 1st Most Probable Water Supply Forecasts



Daily Model Guidance (ESP) and Official Forecast Evolution Plot



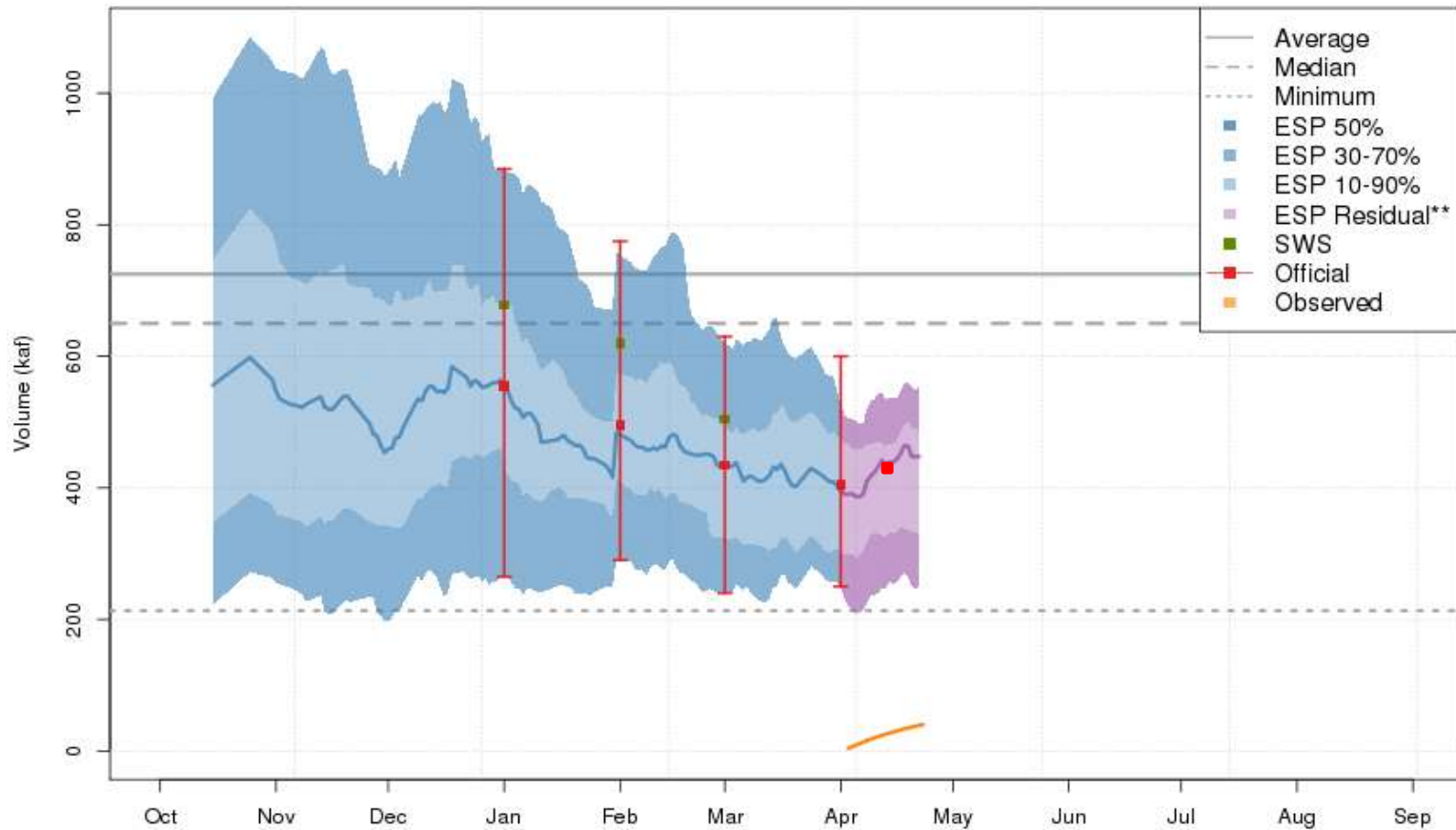
Plot Created 2013-04-17 14:40:39, Latest ESP Run from 2013-04-01, CBRFC / NWS / NOAA
Maximum of 2224.3 in 1986, Minimum of 254.3 in 1977, Average/Median for 1981-2010.

**Residual forecasts include observed

Residual= April observed volume + model guidance to July 31

FORECASTS: Fontenelle Inflow

2013 Runoff Forecast Apr-Jul
Green - Fontenelle Res- Fontenelle Nr (GBRW4)



Plot Created 2013-04-23 12:36:53, Lastest ESP Run from 2013-04-01, CBRFC / NWS / NOAA
Maximum of 1682.9 in 1986, Minimum of 213.3 in 1977, Average/Median for 1981-2010.
**Residual forecasts include observed

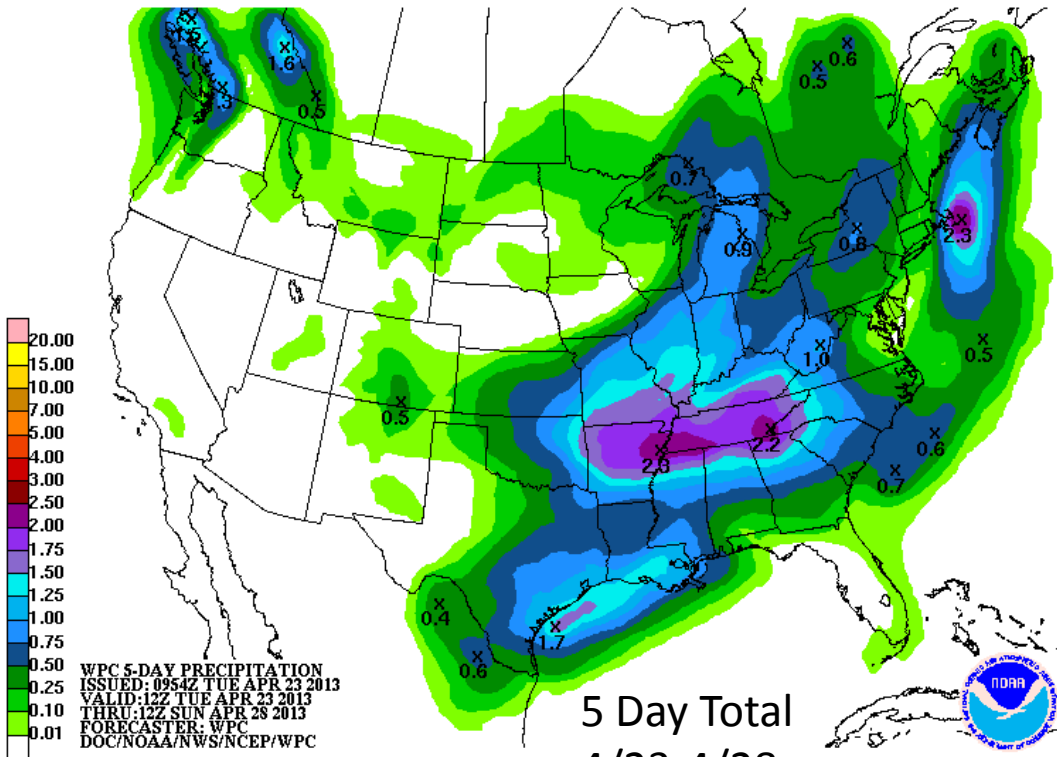
April 1st:

MAX (10%): 600 kaf
MP (50%): 405 kaf 56% avg
MIN (90%): 250 kaf

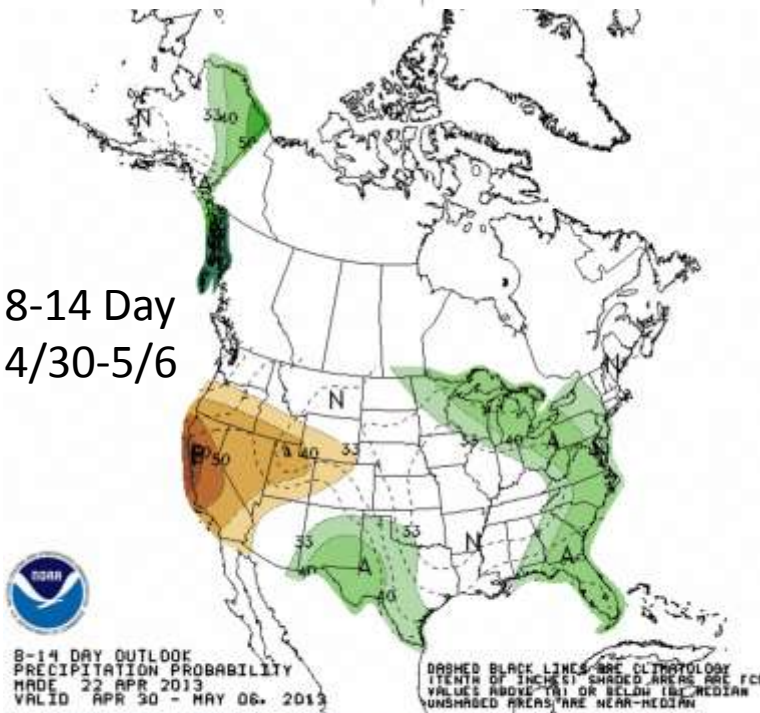
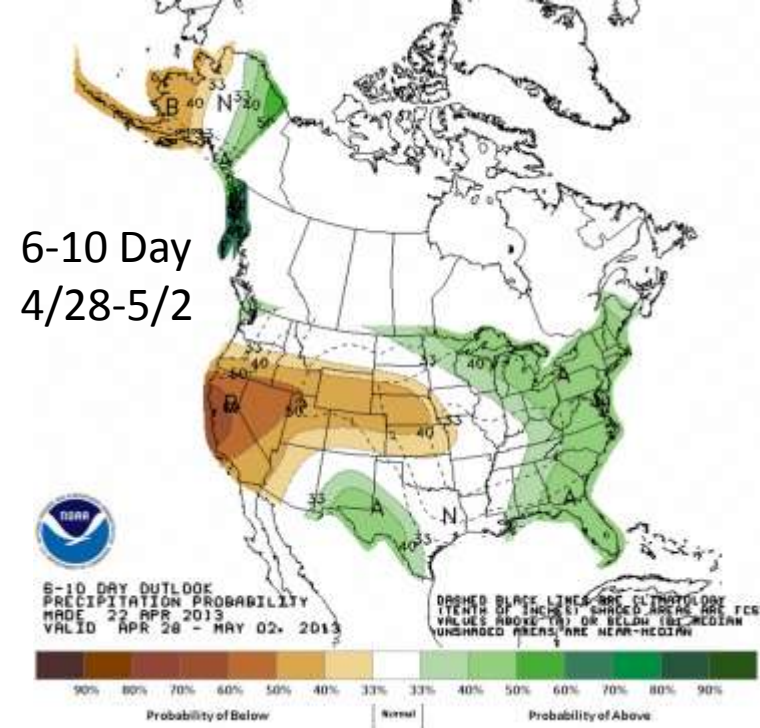
April 16 Update:

MP (50%): 435 kaf 60% avg

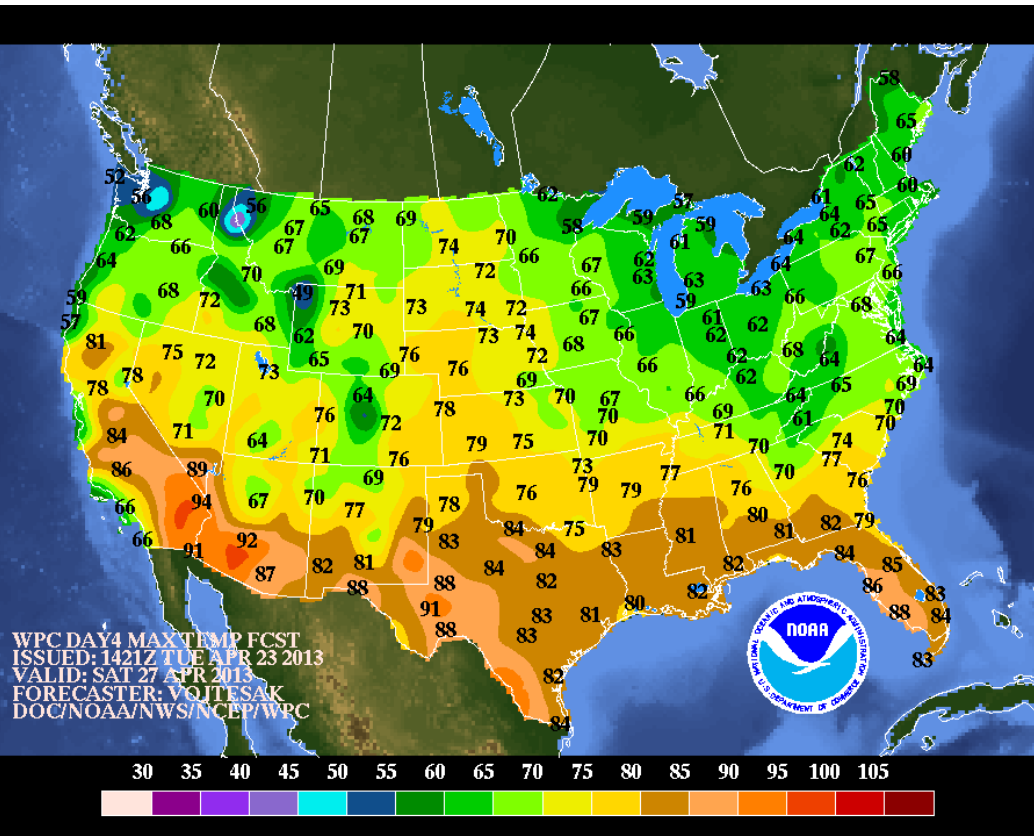
Forecast Precipitation



- Ridge of high pressure building
- Warming and drying trend through the weekend
- Possible trough and unsettled weather Sunday
 - Light precip and cooler temperatures

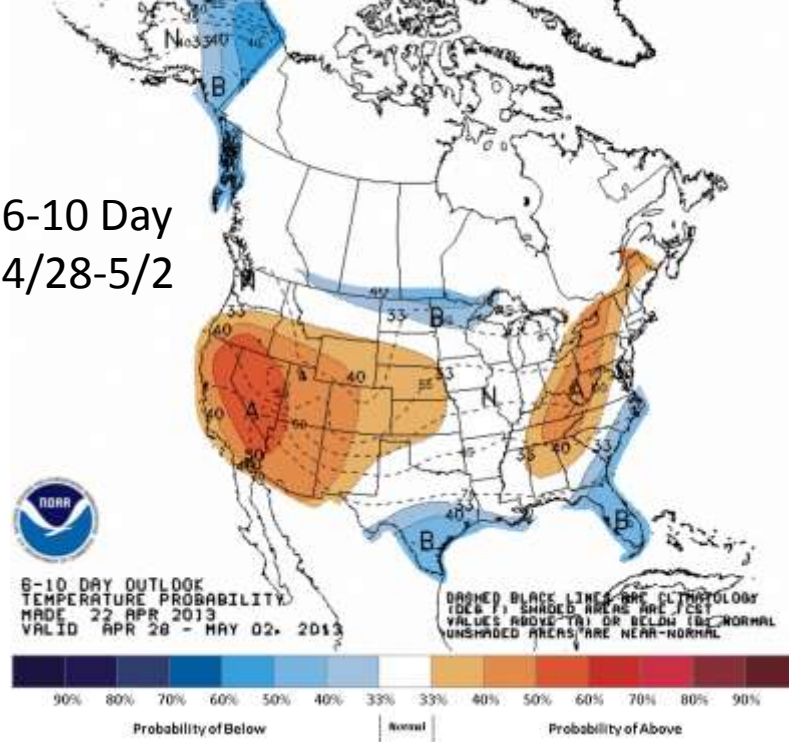


Forecast Temperature

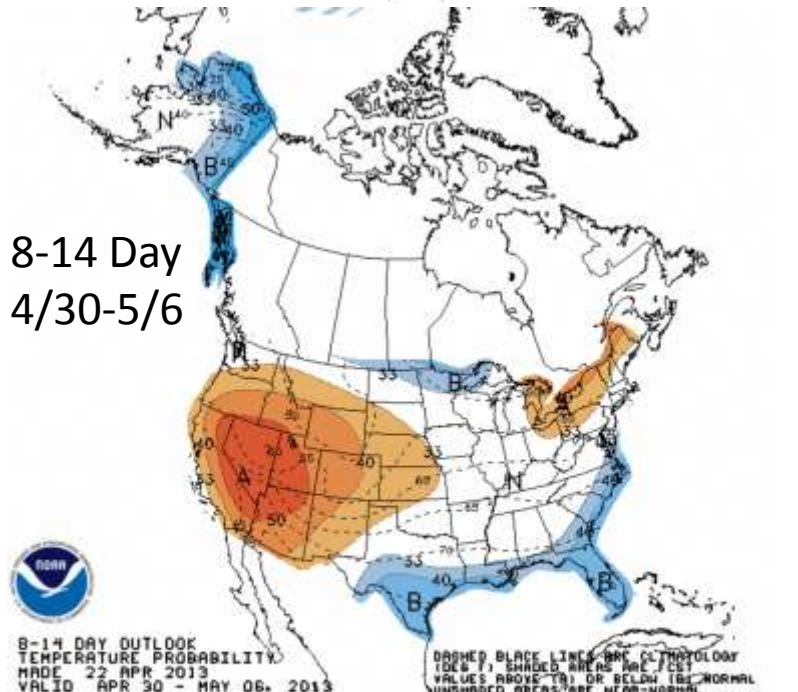


April 27-Saturday

6-10 Day
 4/28-5/2

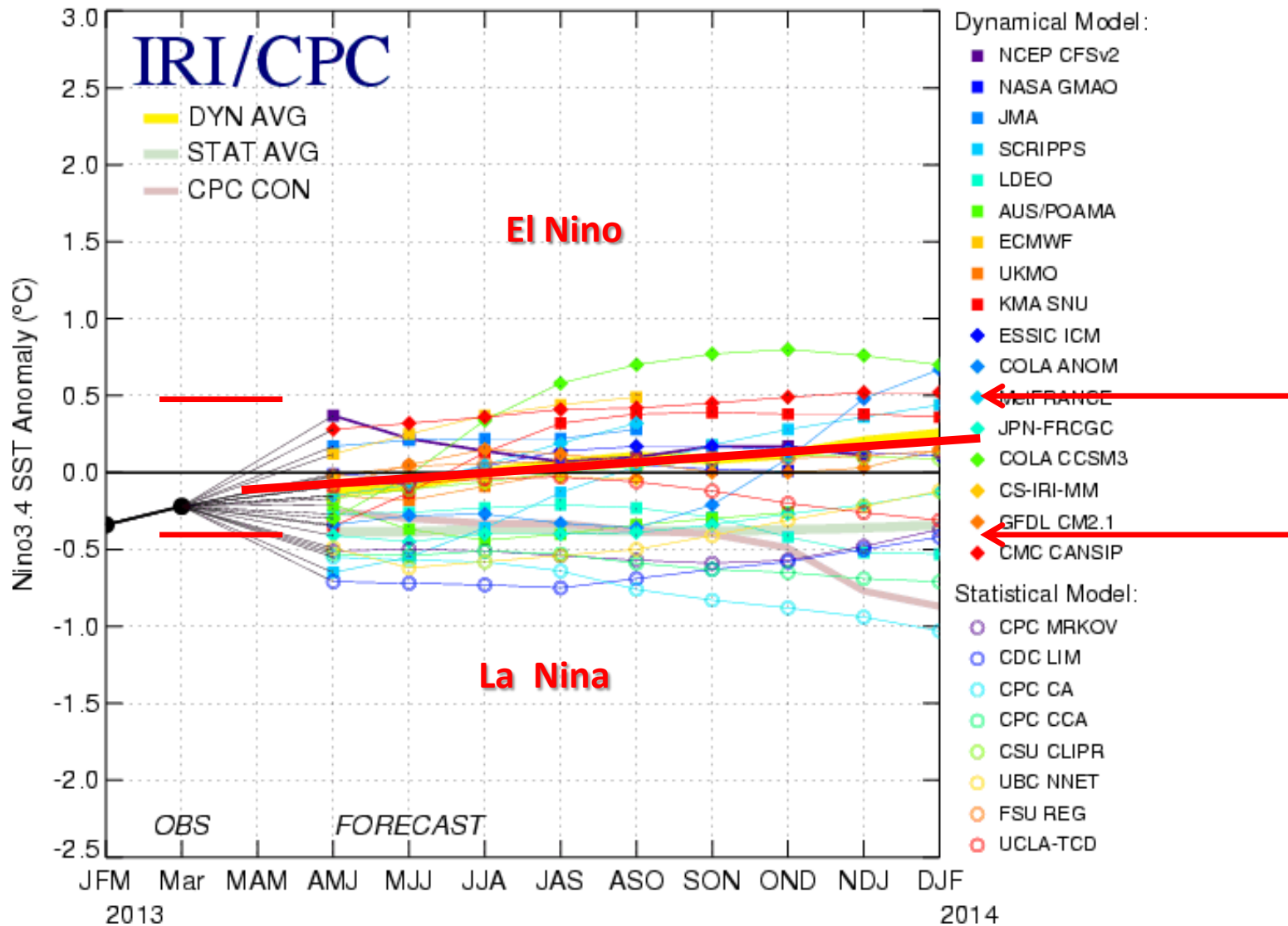


8-14 Day
 4/30-5/6



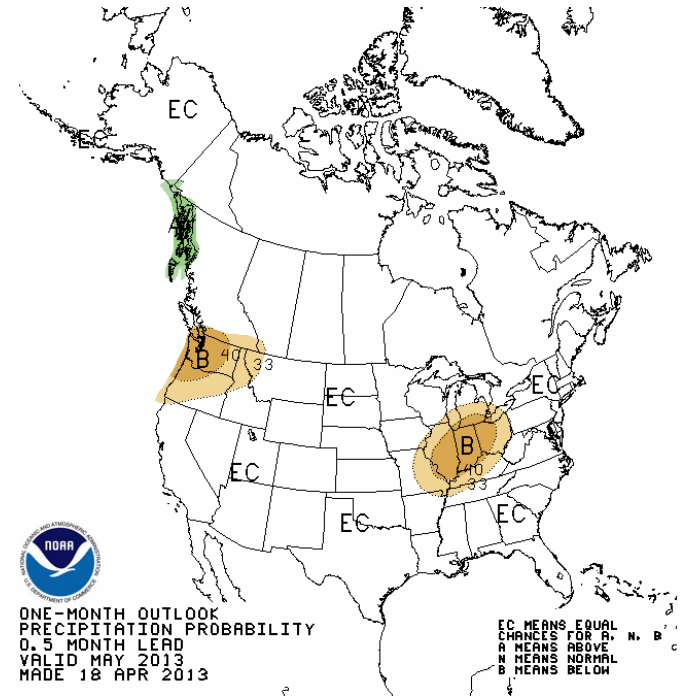
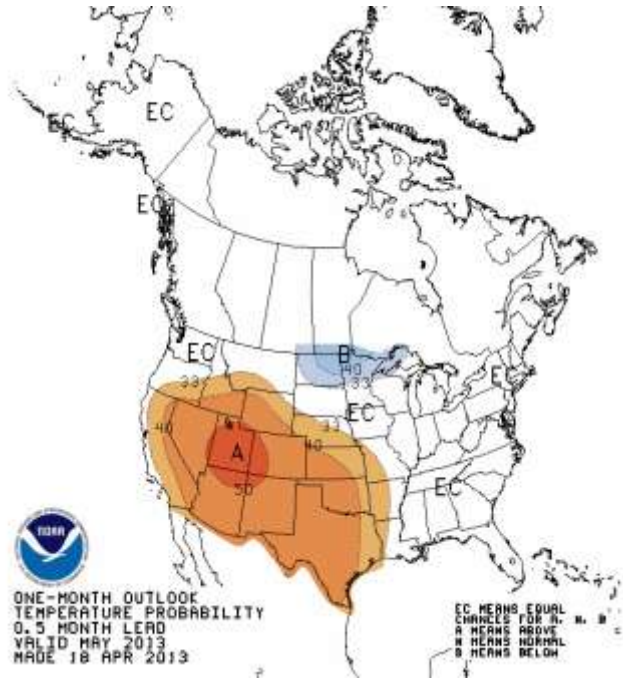
ENSO UPDATE

Mid-Apr 2013 Plume of Model ENSO Predictions

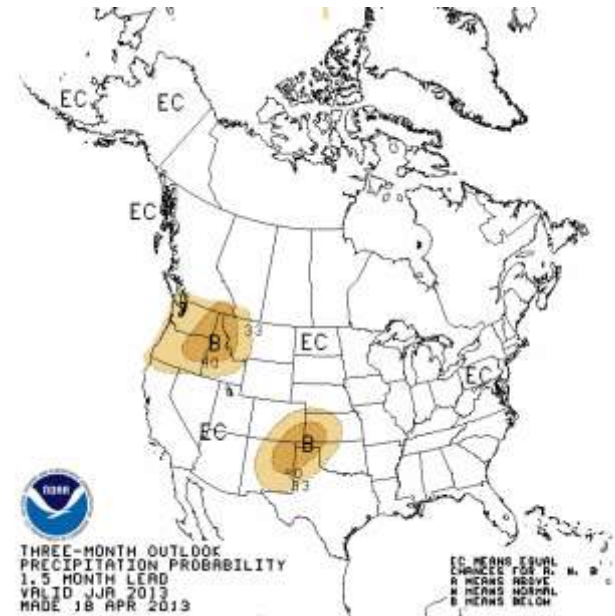
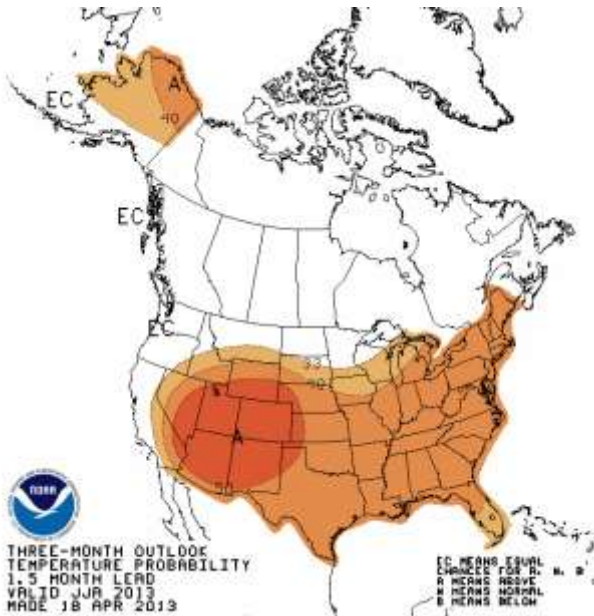


Long Range Climate Forecasts

MAY



JJA



Feedback, Questions, Concerns always welcome....



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