

CBRFC 2014 Runoff Recap: Fontenelle Reservoir

August 20, 2014

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NWS Colorado Basin River Forecast Center



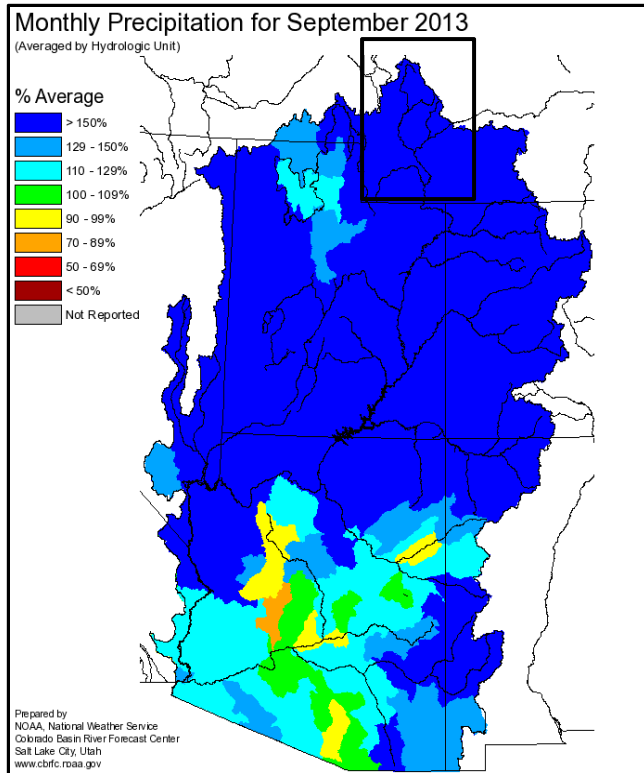


Outline

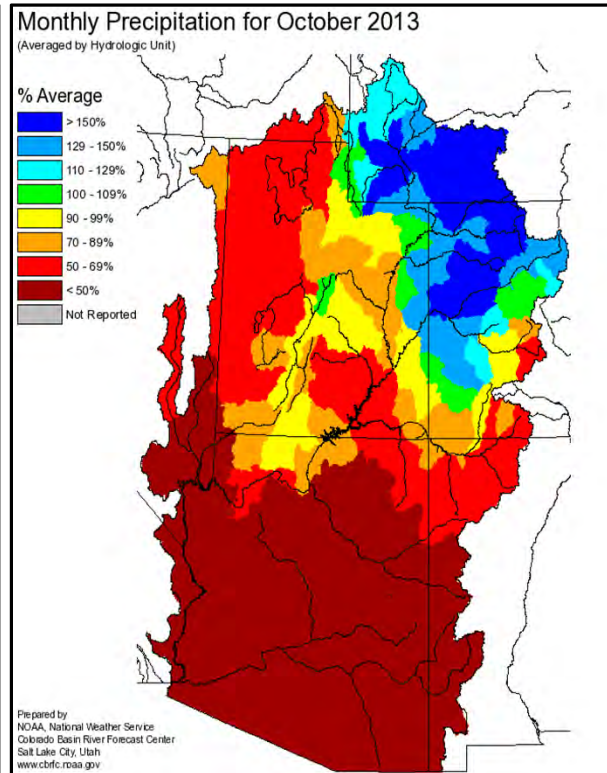


- 2014 Conditions Recap
 - Precipitation/Temperature
 - Snow
 - Streamflow
- April-July Forecast Performance
- Future forecasts (climate and water supply)

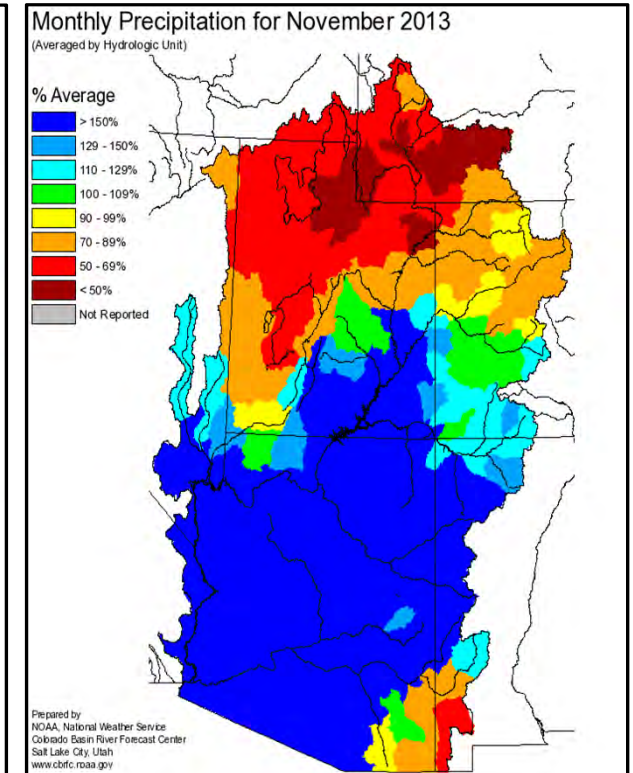
Fall Precipitation



September: 220%

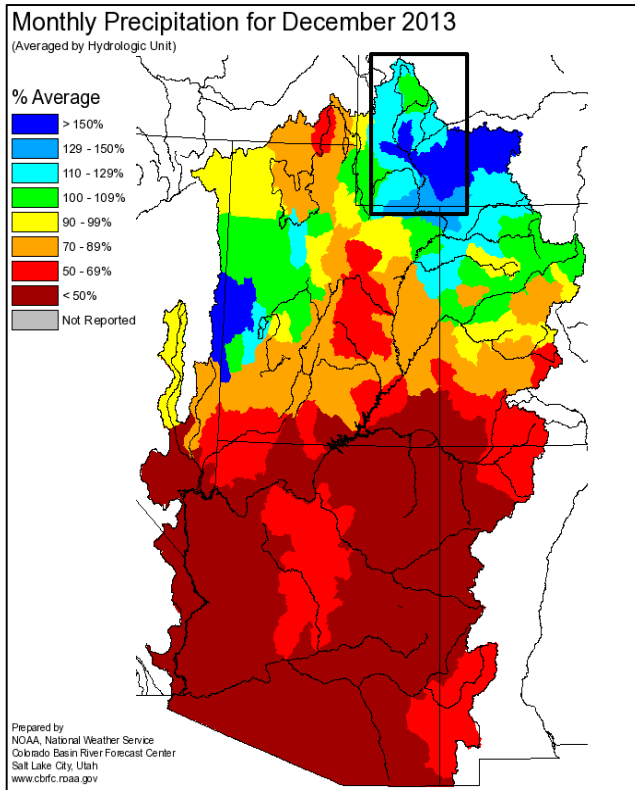


October: 145%

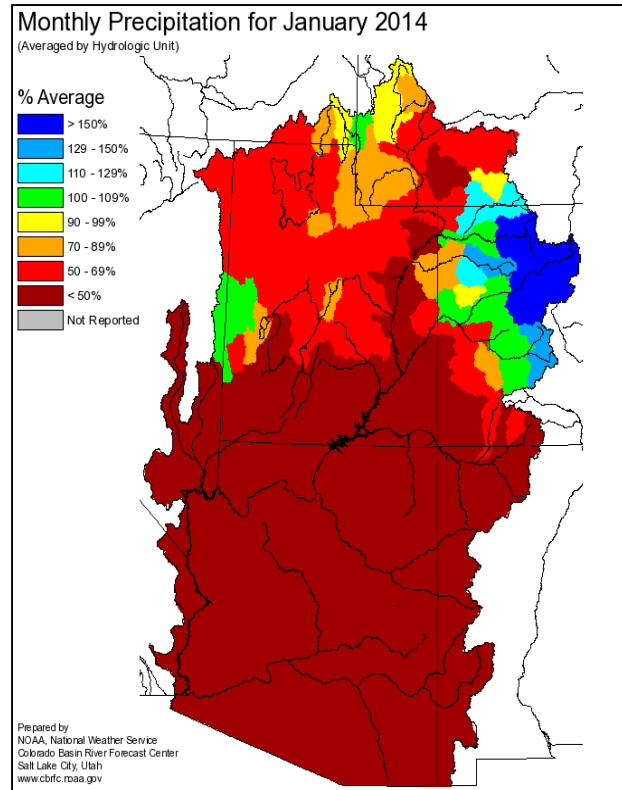


November: 55%

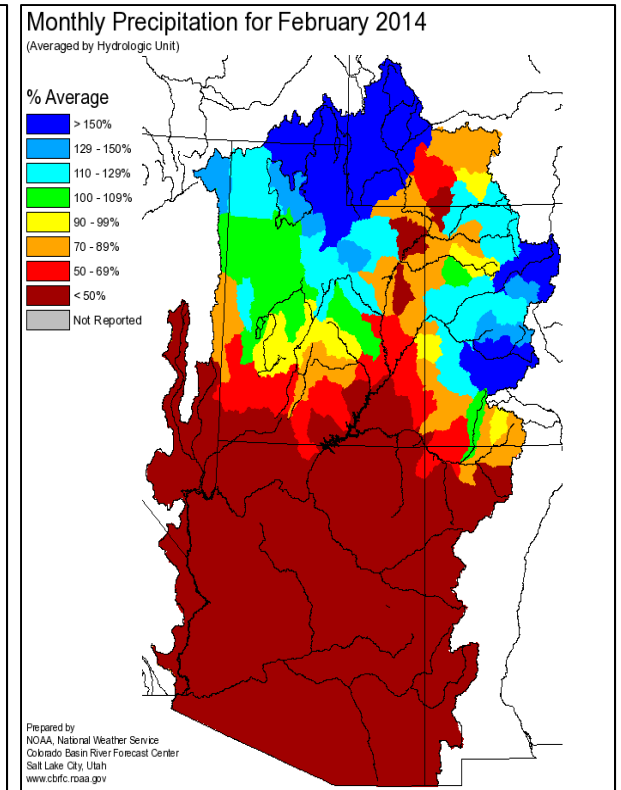
Winter Precipitation



December: 130%



January: 80%



February: 220%
Many locations 300-400%

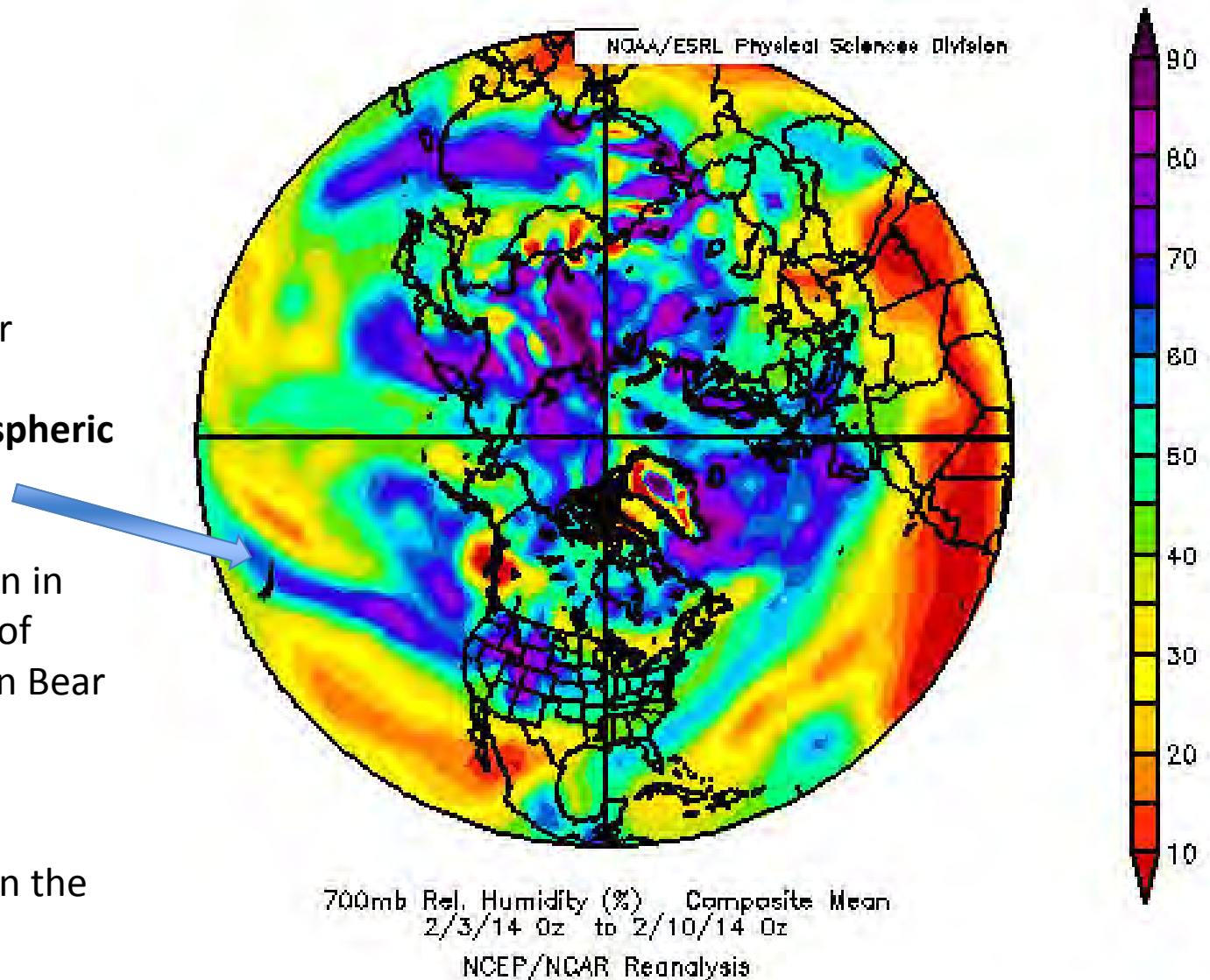
February Precipitation: 2nd Highest of many Snotel Records!

February 2014 Upper Air Pattern

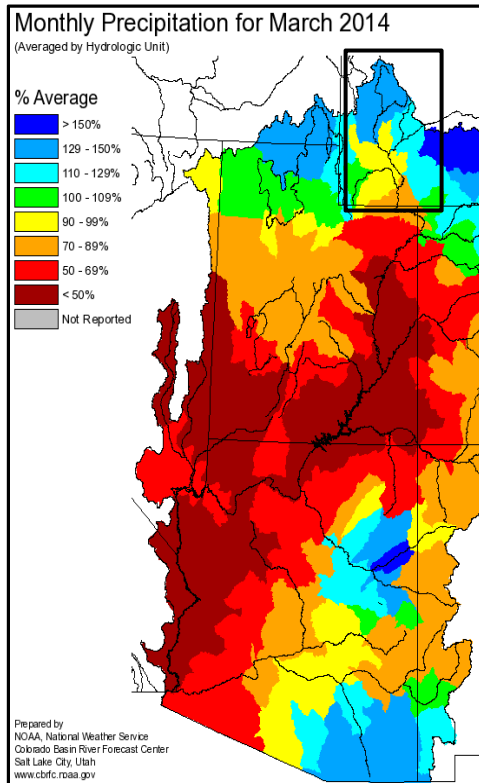
Very moist and mild air transported into the Western U.S. – “**atmospheric river**”

Significant precipitation in the Green River Basin of Wyoming and northern Bear River Basin

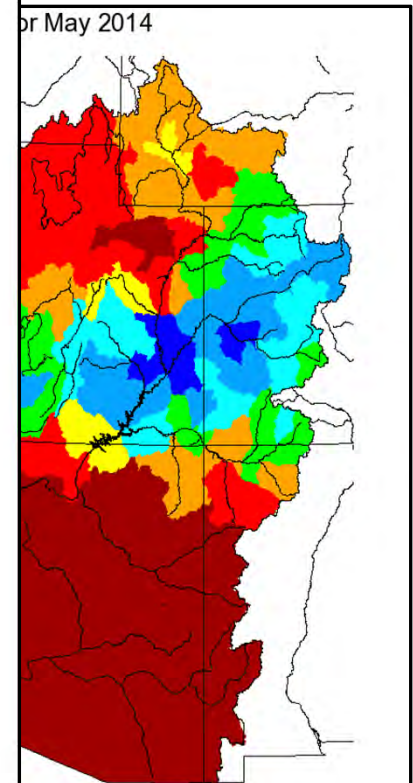
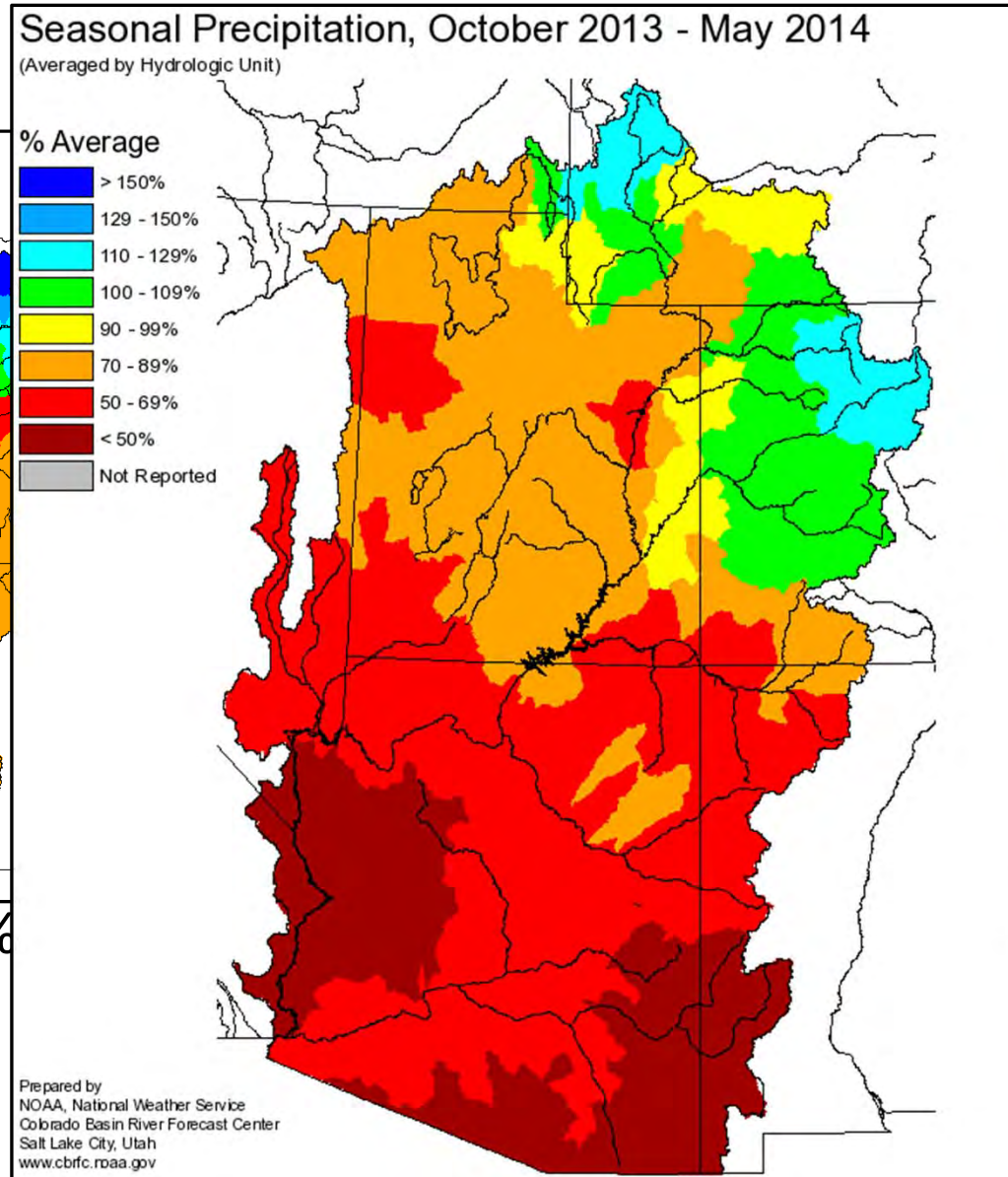
Above or much above average precipitation in the Yampa, Colorado Headwaters, upper Gunnison



Spring Precipitation



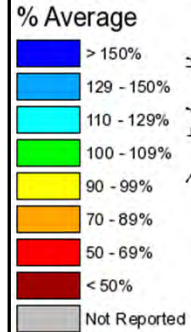
March: 115%



May: 80%

Summer Precipitation

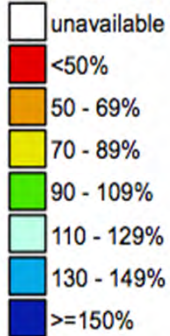
Monthly Precipitation
(Averaged by Hydrologic Unit)



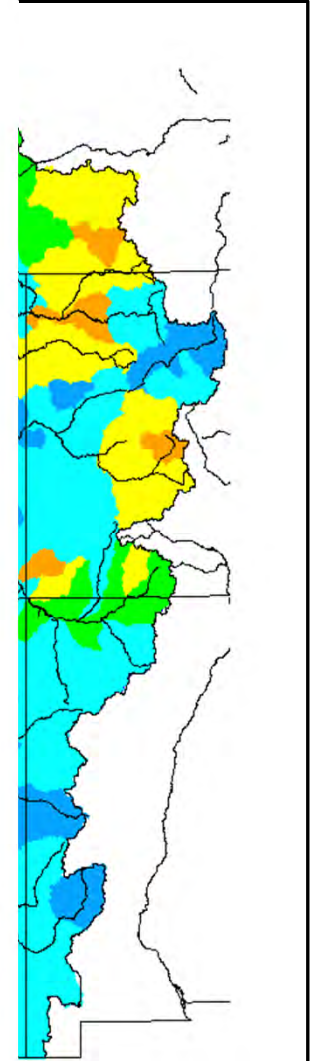
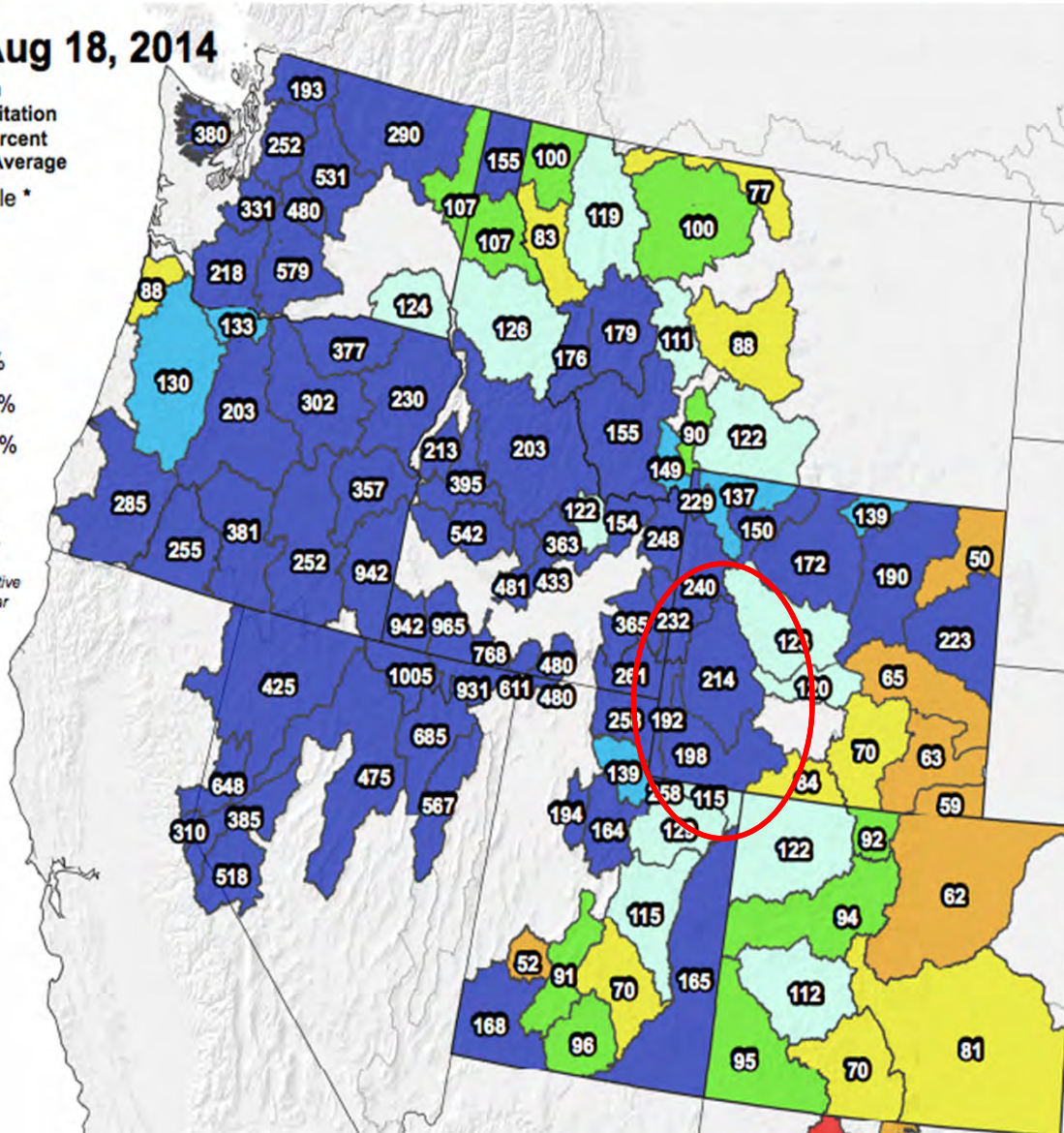
Westwide SNOTEL Current Month to Date Precipitation % of Normal

Aug 18, 2014

Current Month to Date Precipitation Basin-wide Percent of 1981-2010 Average

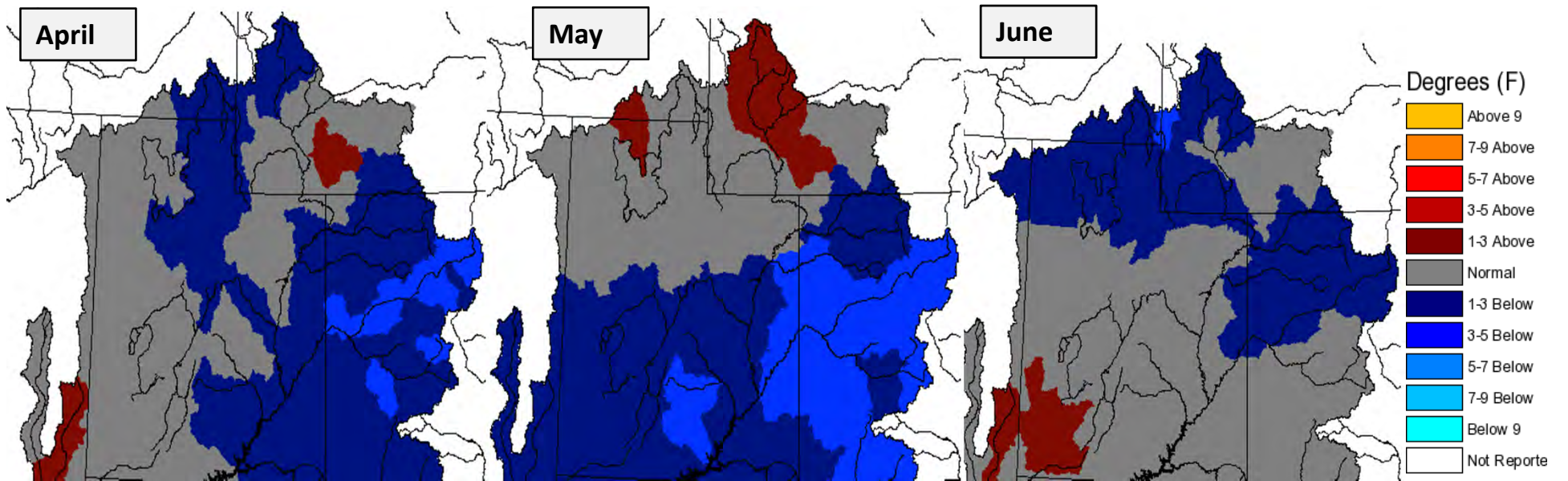


* Data unavailable at time of posting or measurement is not representative at this time of year

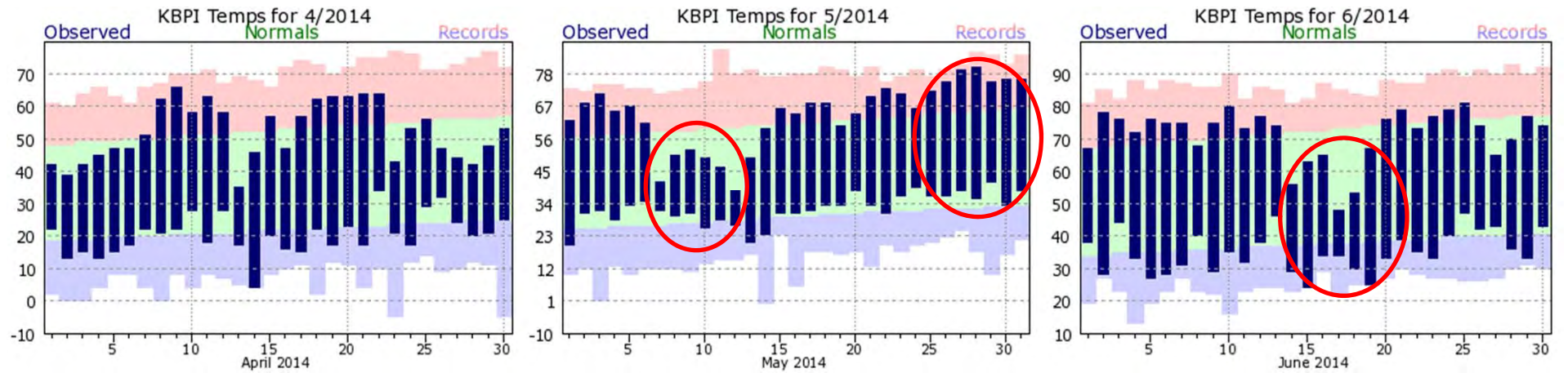


Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbifc.noaa.gov

Monthly Max Temperature Deviation

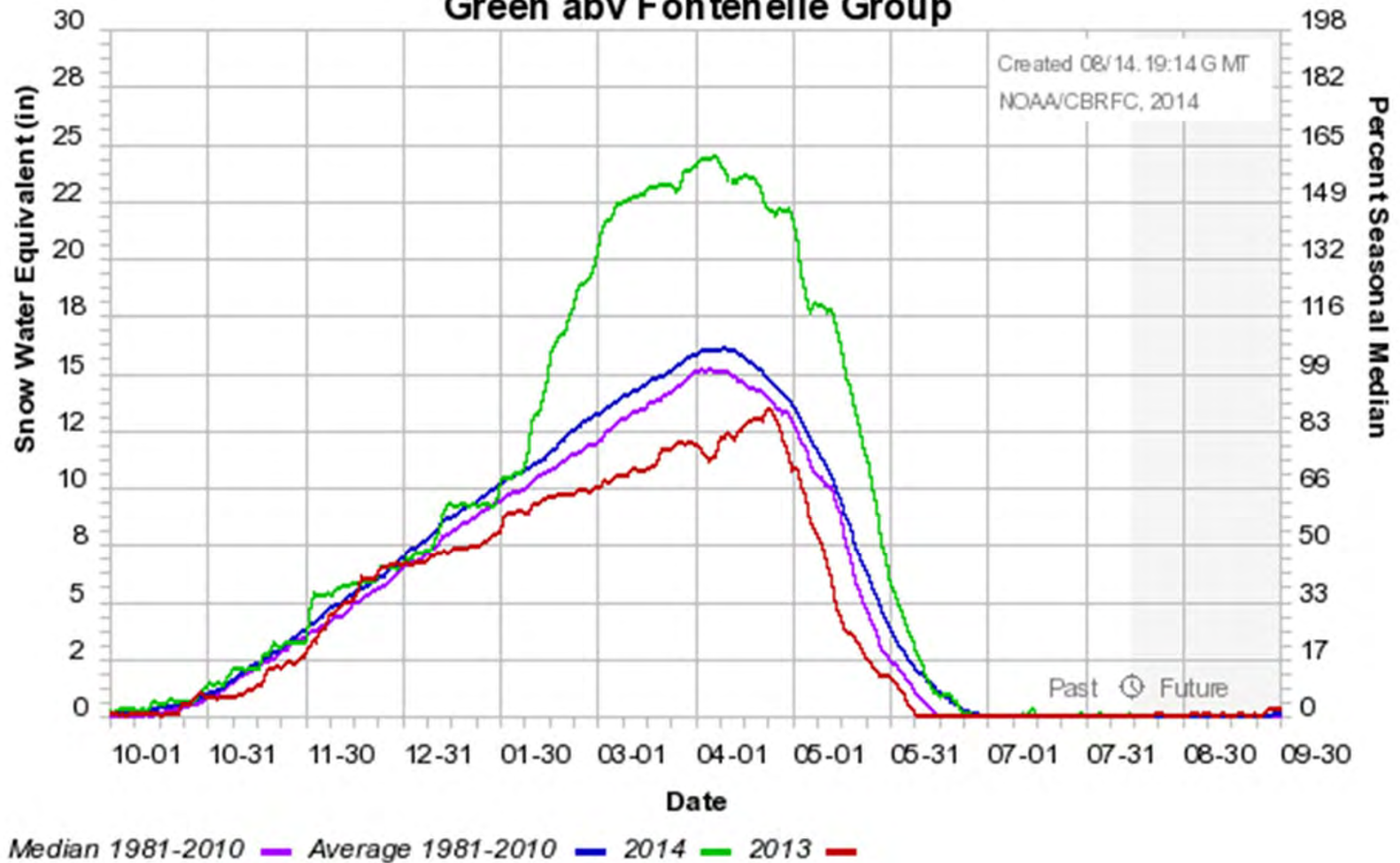


Big Piney Daily Temperatures

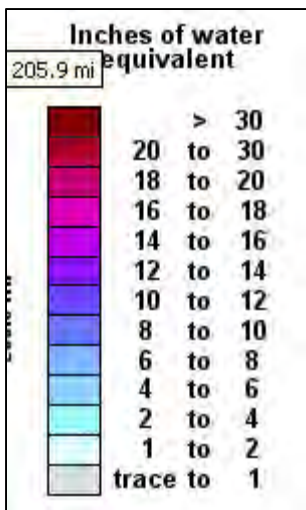
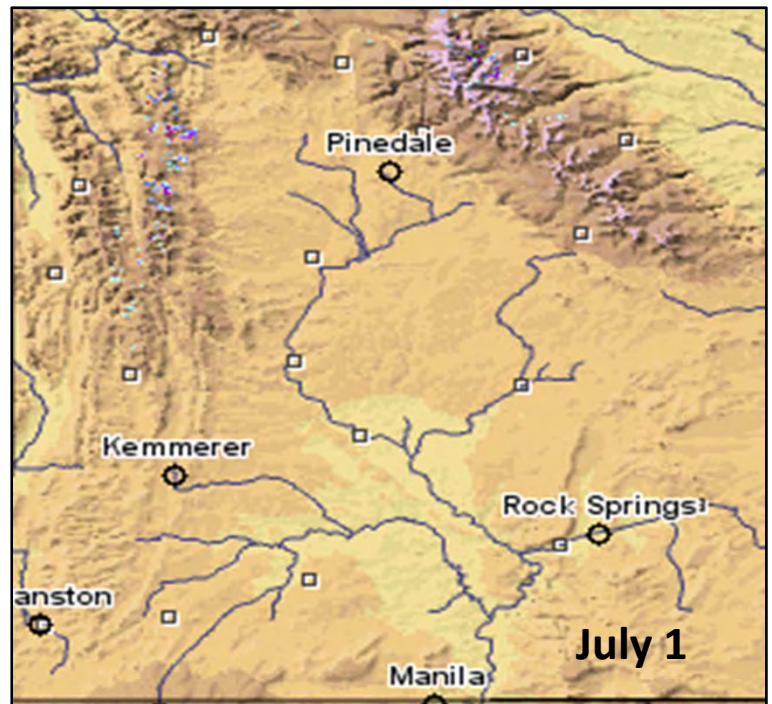
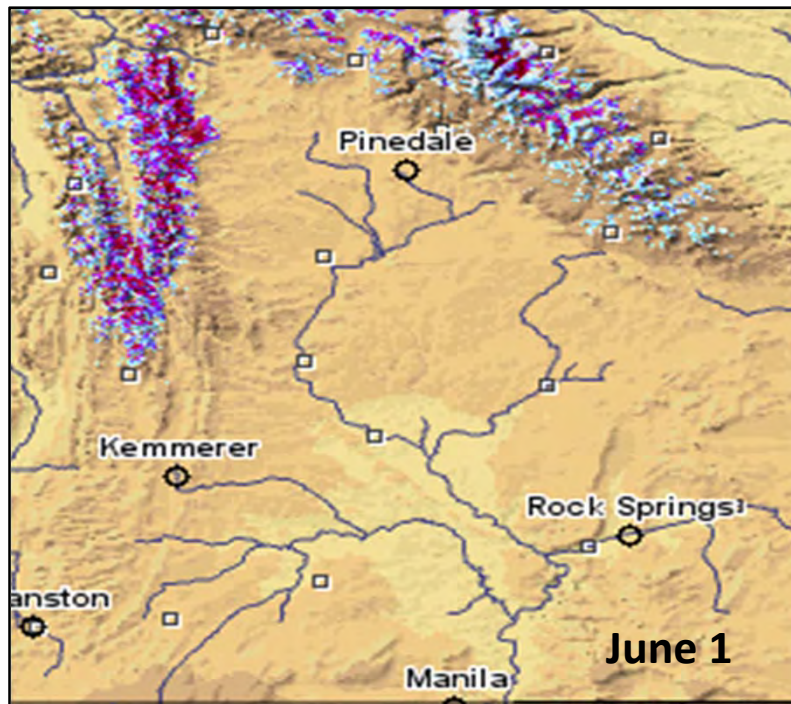
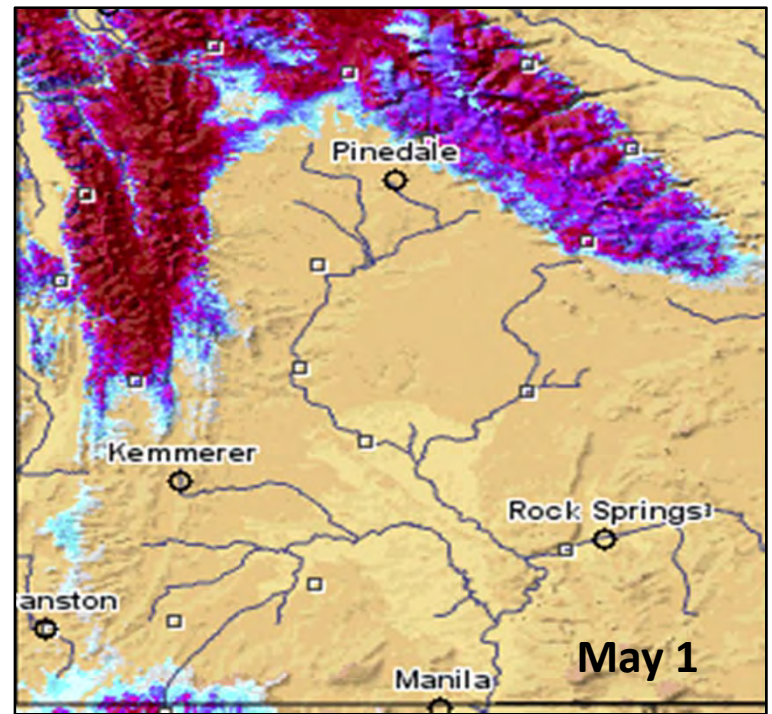
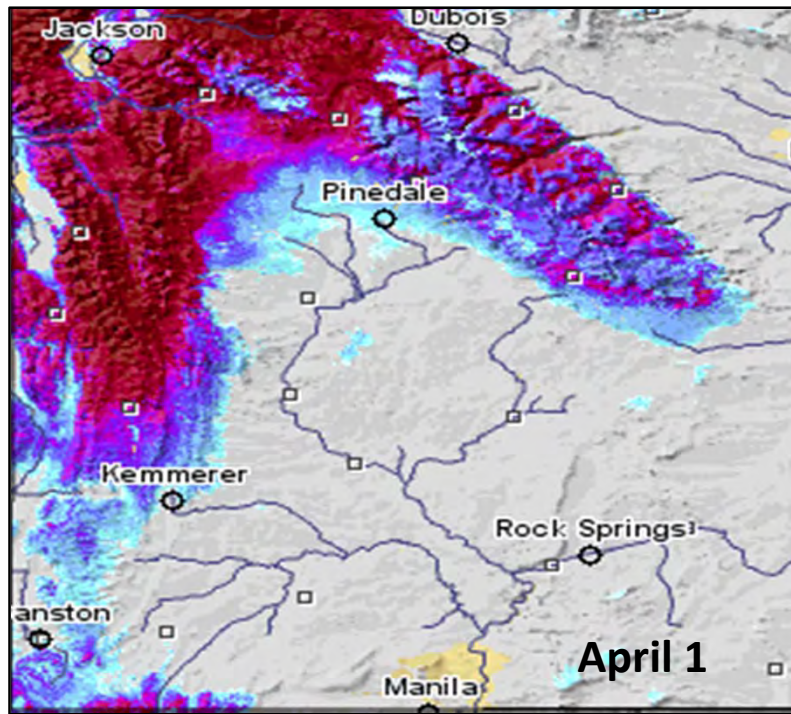


Snow

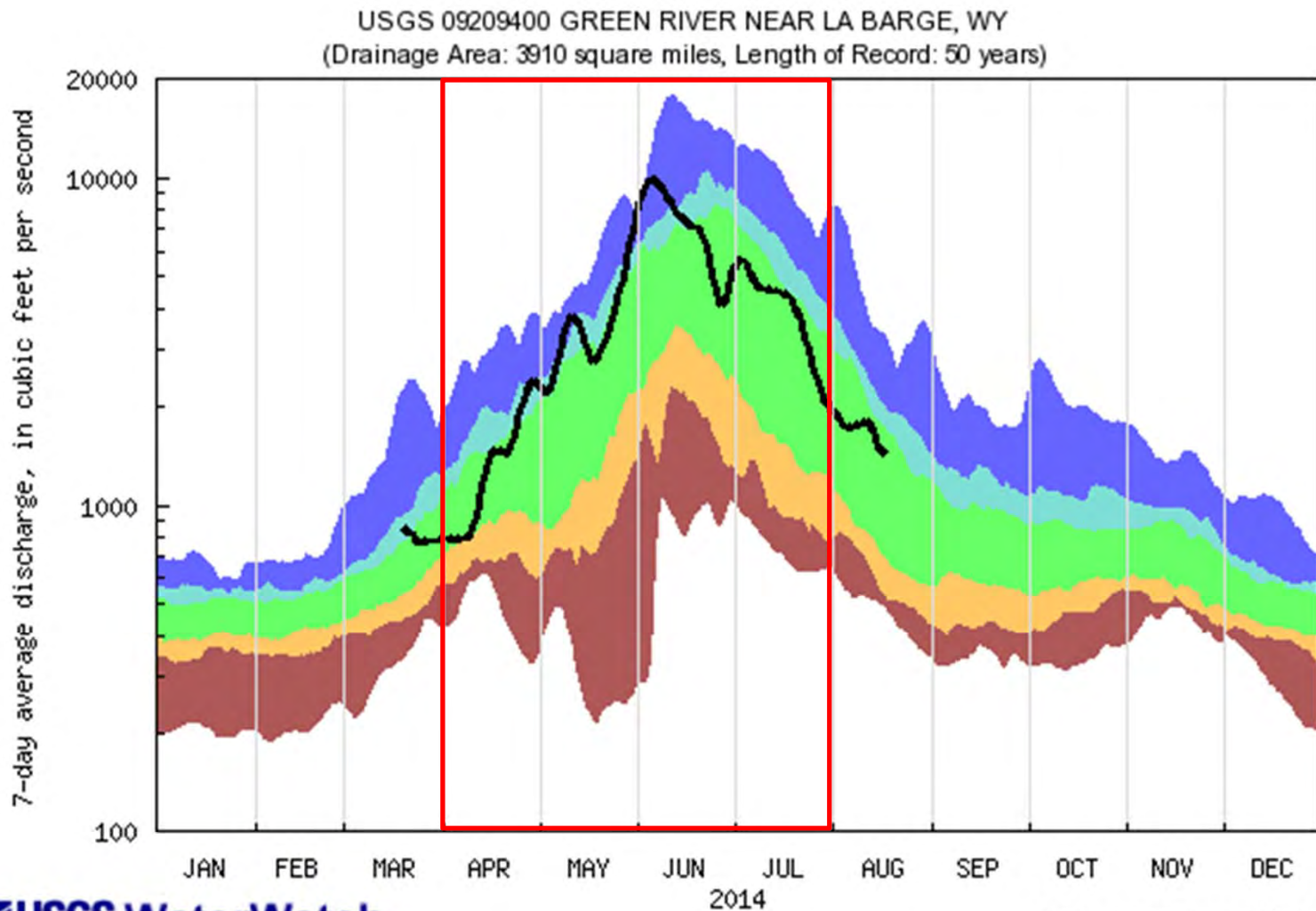
Colorado Basin River Forecast Center Green abv Fontenelle Group



SNOW: Melt Progression



Streamflow: Green River at LaBarge



USGS WaterWatch

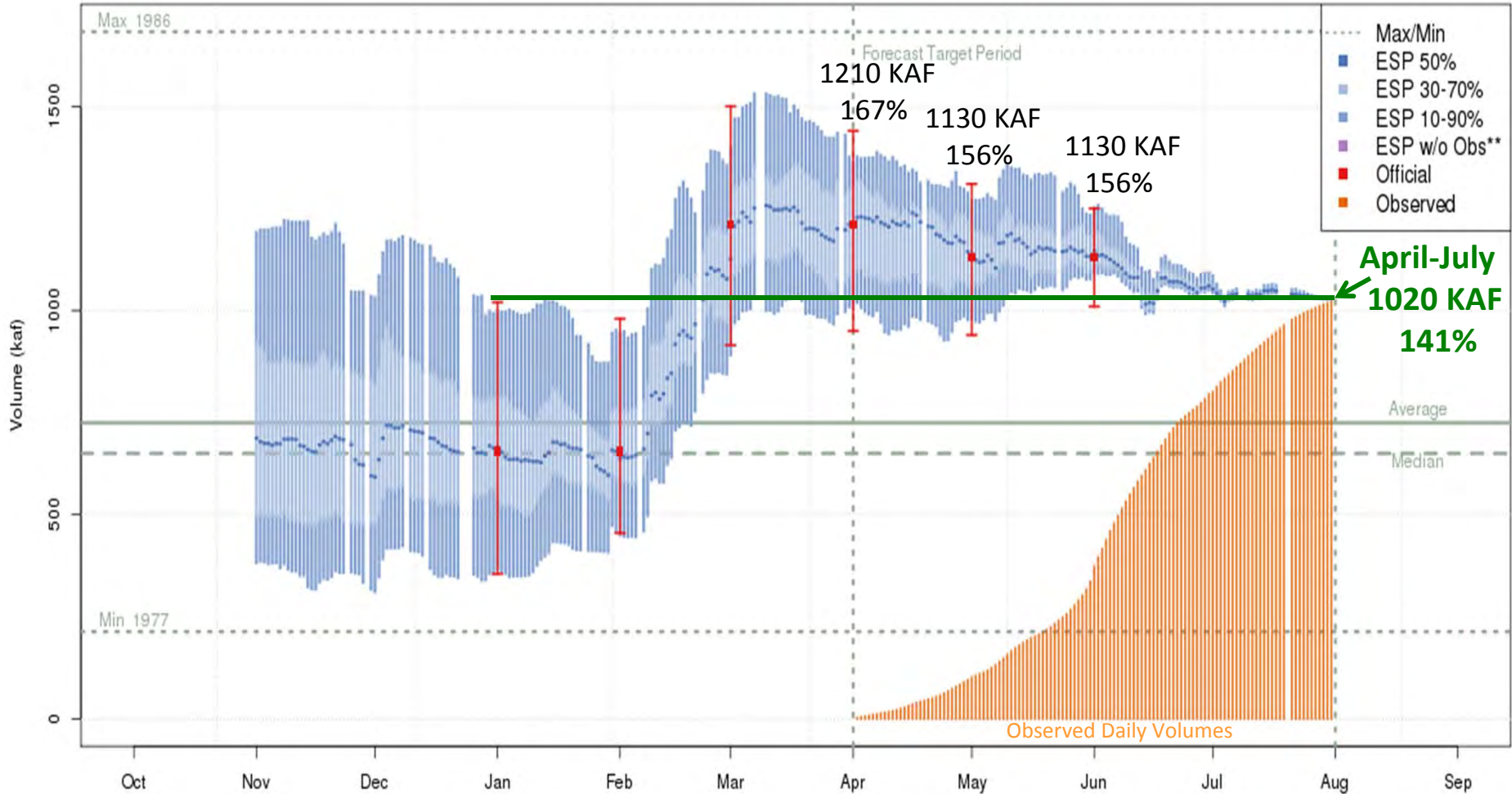
Last updated: 2014-08-18

Explanation - Percentile classes						
lowest-10th percentile	5	10-24	25-75	76-90	95	90th percentile - highest
Much below Normal	Below normal	Normal	Above normal	Much above normal		Flow

Forecast: Fontenelle Inflow

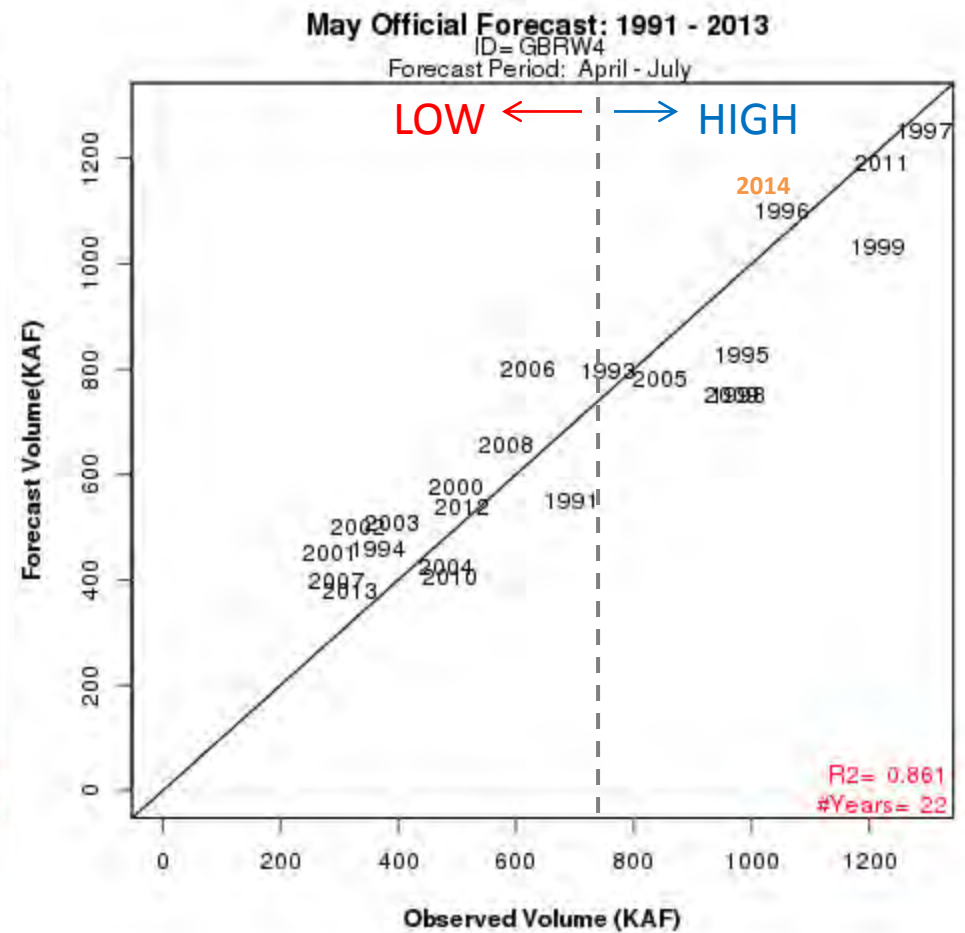
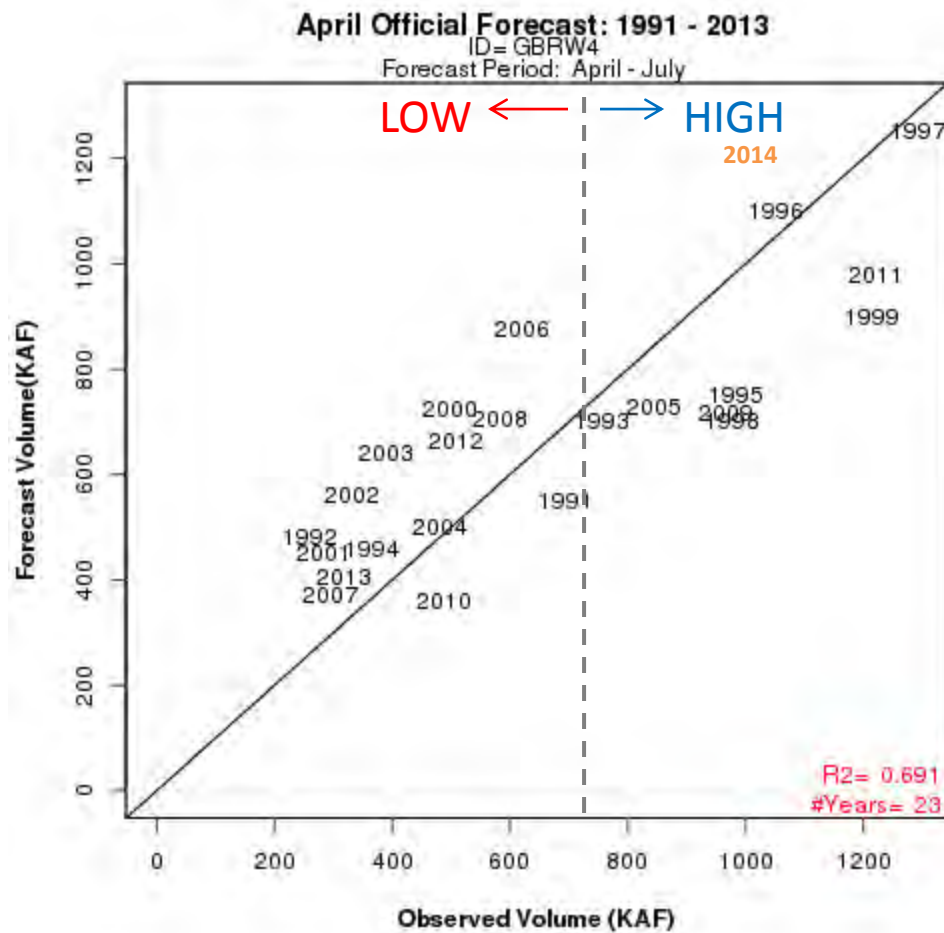
Seasonal Forecast Progression + Observations

Green - Fontenelle Res- Fontenelle Nr (GBRW4) Apr-Jul 2014 Runoff Forecast (No Precip Forecast Included)
 2014-06-01 Official 50% Forecast: 1130 kaf (156% of average)



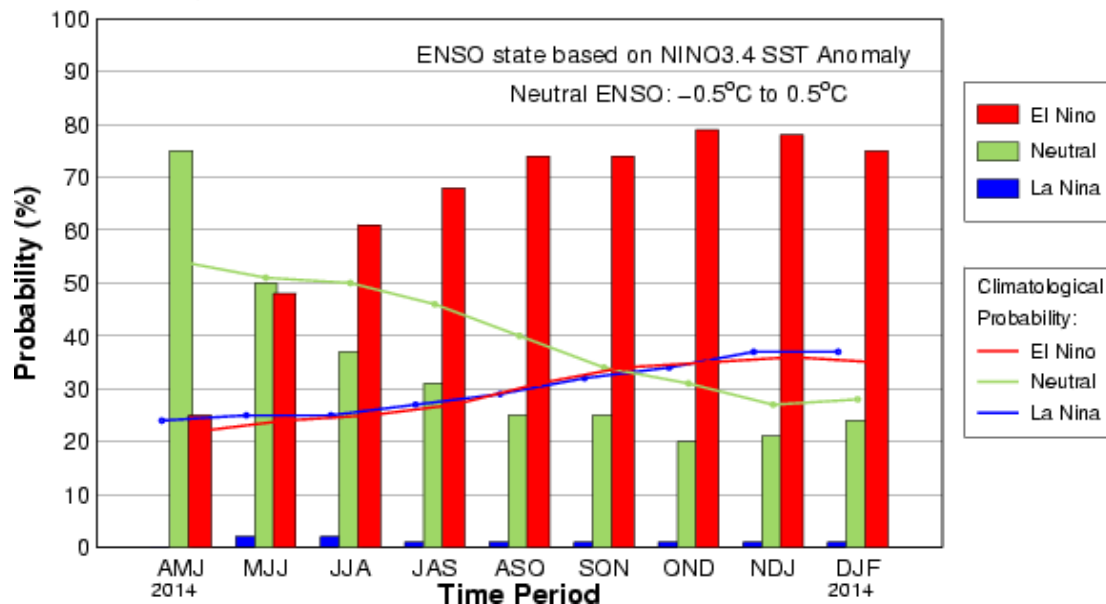
Plot Created 2014-08-14 10:33:58, Lastest ESP Run from 2014-07-31, NOAA / NWS / CBRFC
 The latest (2014-07-31) 50% ESP forecast (1031 kaf) changed 0.1 % from previous day and -2.1 % from July 1
 **These ESP forecasts do not include observed and are not total runoff.

How well do forecasts perform in high years?



Latest ENSO Projections

Mid-Apr IRI/CPC Plume-Based Probabilistic ENSO Forecast



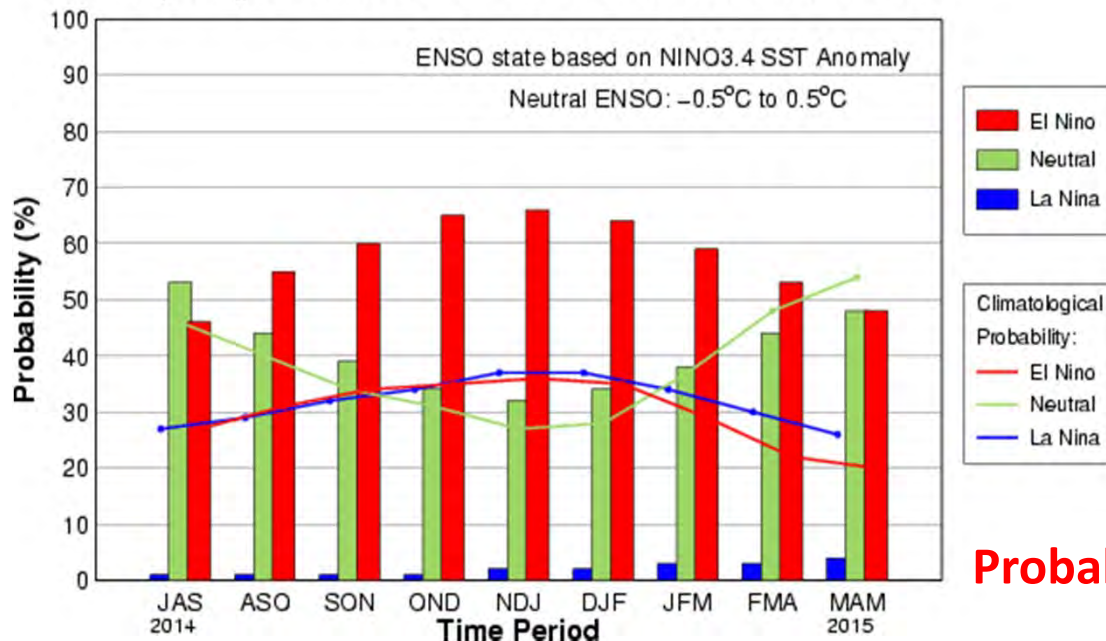
Chance of El Niño (April):

SON: 74%

OND: 79%

NDJ: 78%

Early-Aug CPC/IRI Consensus Probabilistic ENSO Forecast



Chance of El Niño (August):

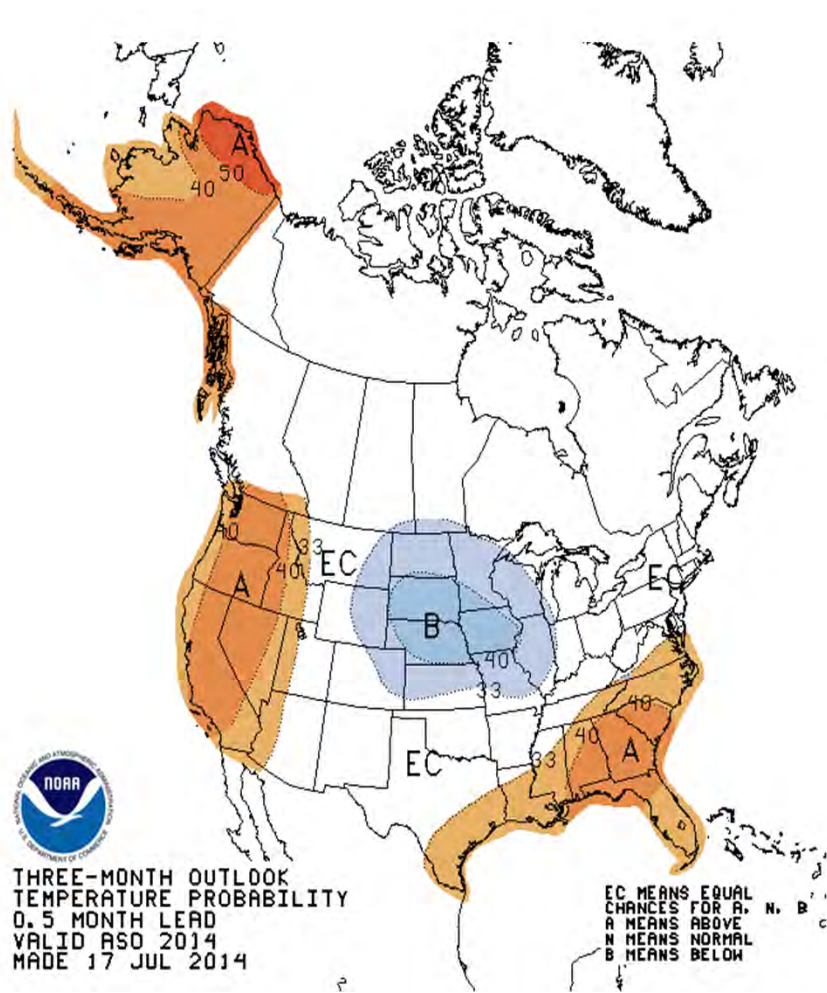
SON: 60%

OND: 65%

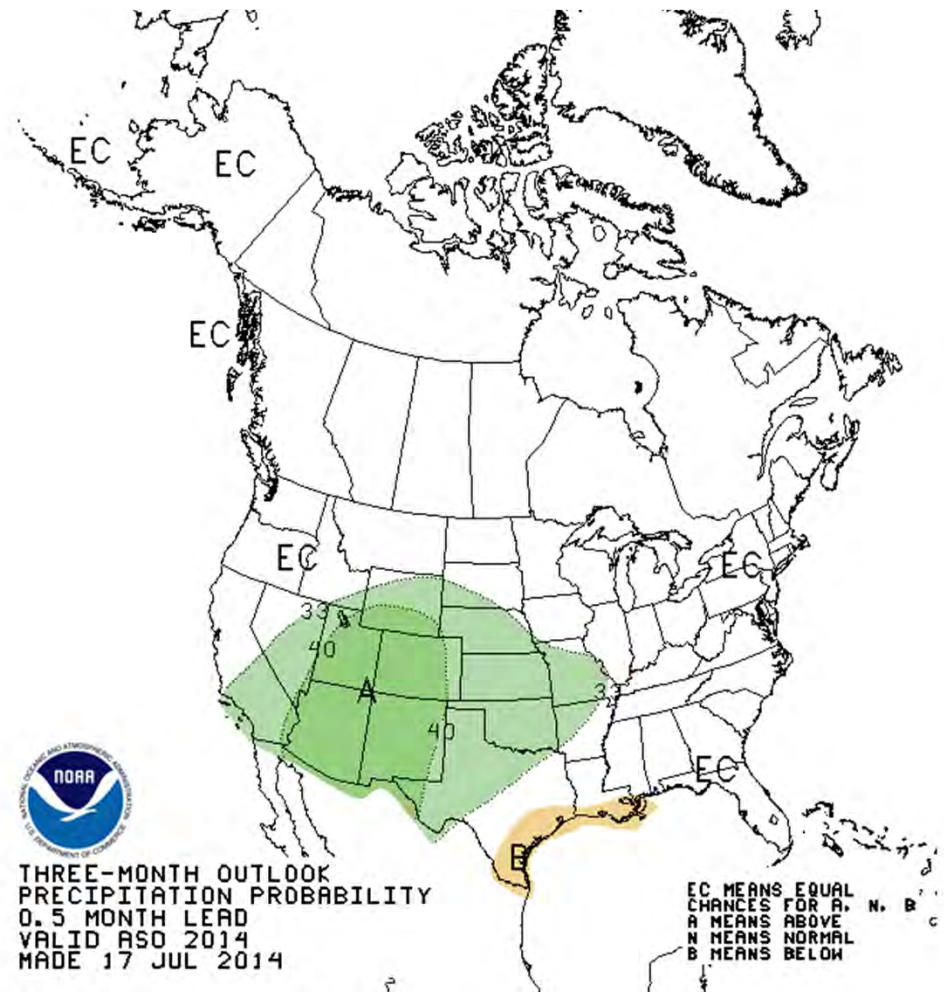
NDJ: 66%

Probability of strong El Niño is decreasing.

3-Month Climate Outlooks



Temperature



Precipitation

Water Supply Forecasts: 8/18

Fontenelle Inflow

August	September	October
90 KAF 118%	59 KAF 129%	55 KAF 113%

Above average flows forecasted

Questions/Comments/Feedback?



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