CBRFC Forecast Update: Upper Green and Yampa

April 24, 2013

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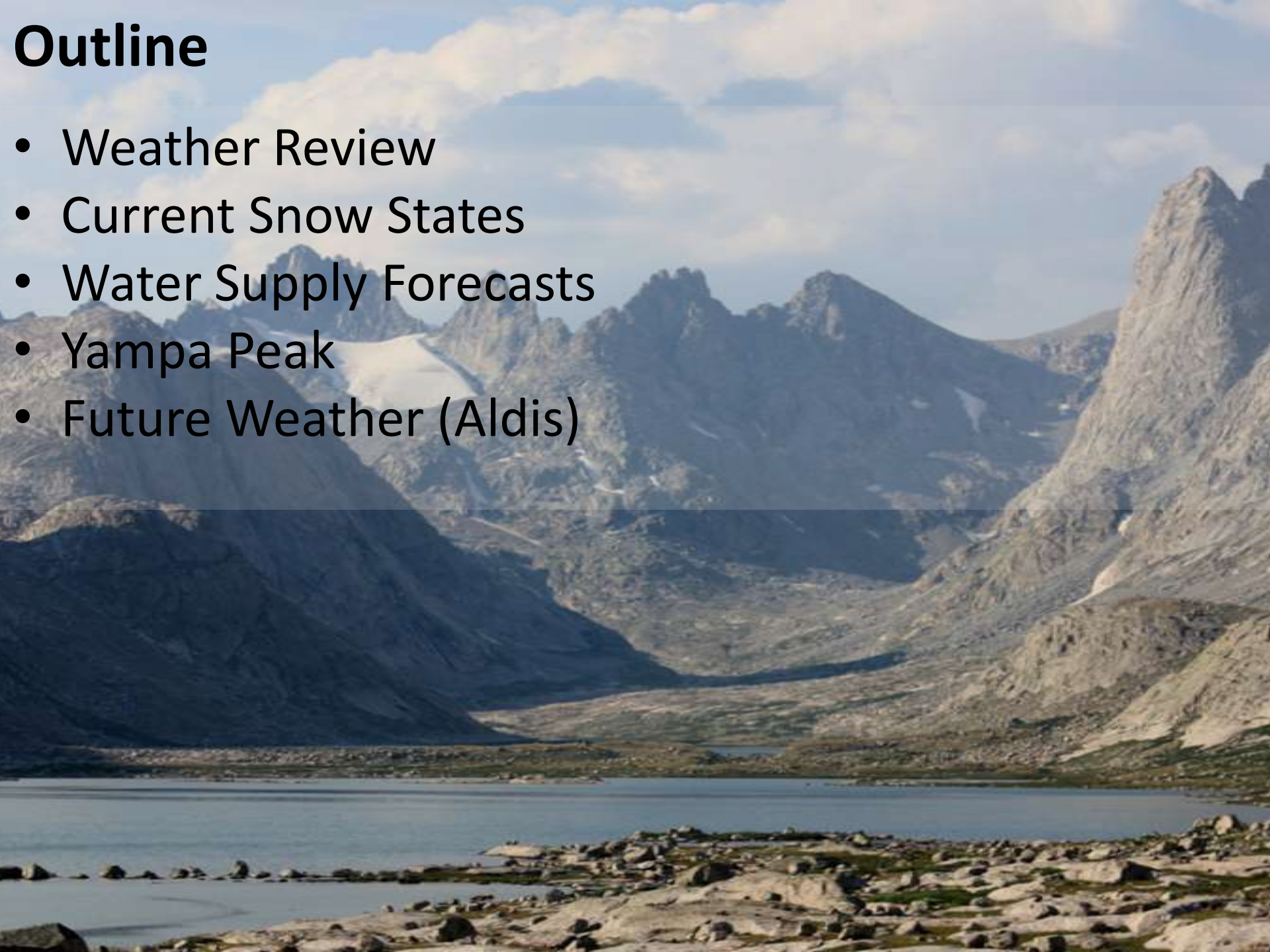
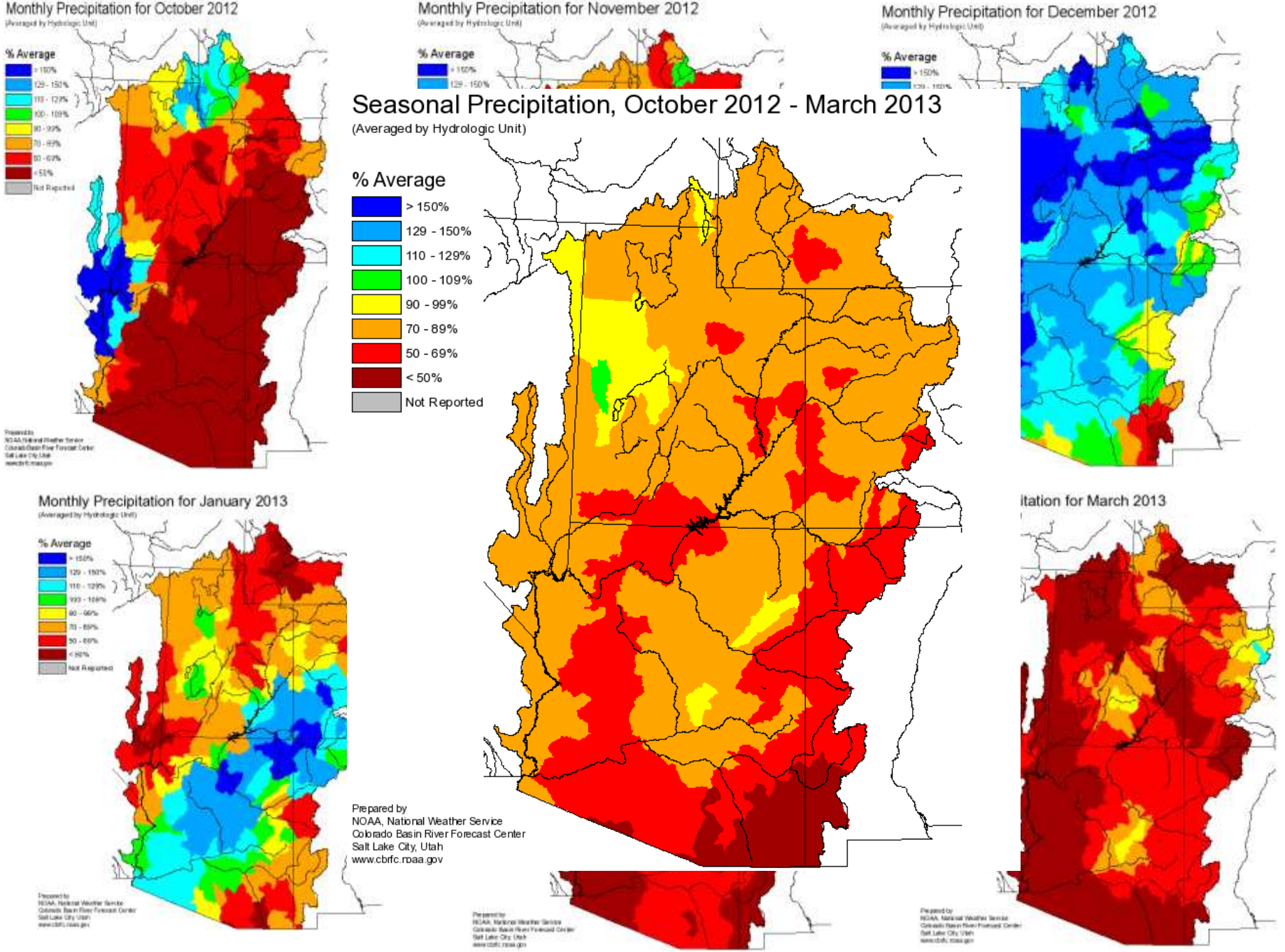
NWS Colorado Basin River Forecast Center

Outline

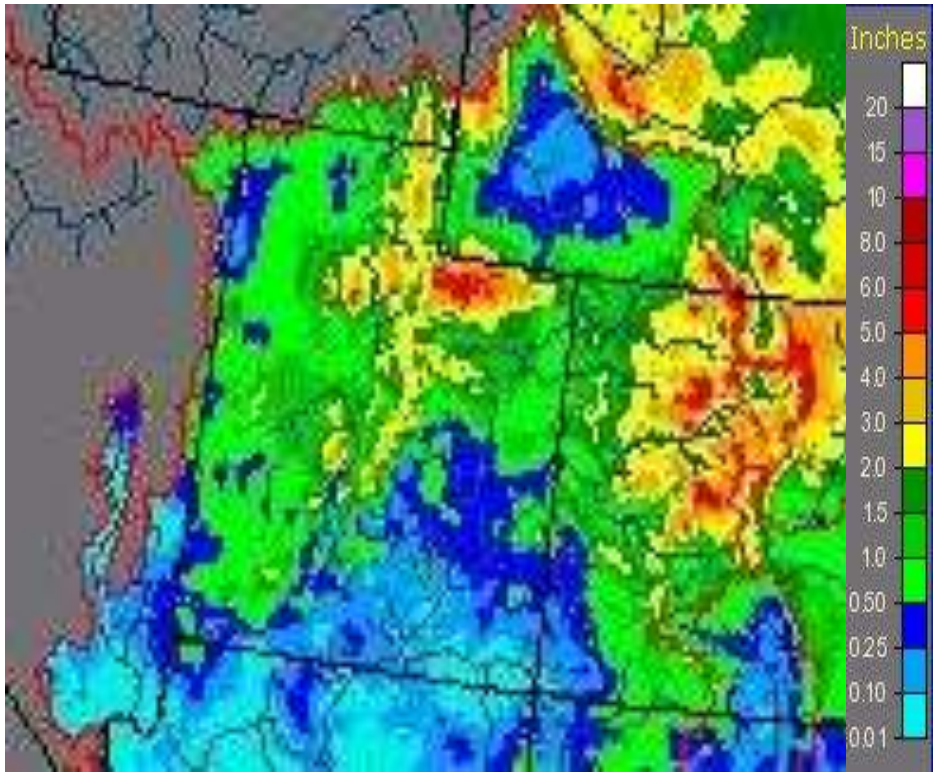
- Weather Review
- Current Snow States
- Water Supply Forecasts
- Yampa Peak
- Future Weather (Aldis)



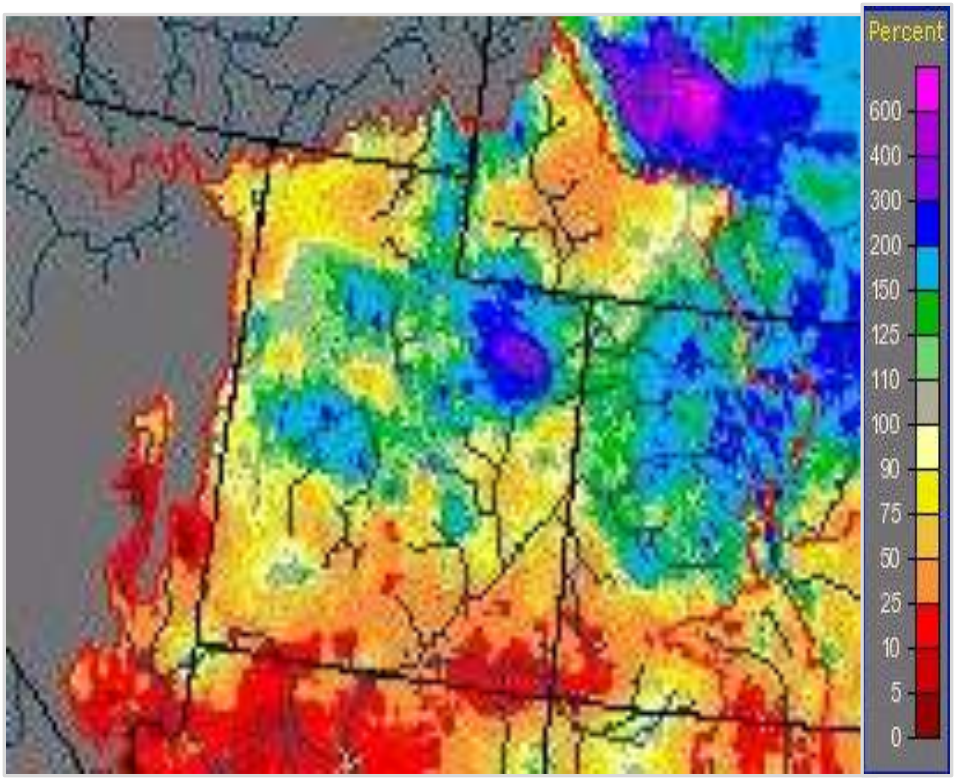


Web Reference: http://www.cbrfc.noaa.gov

April Precipitation: Month to Date



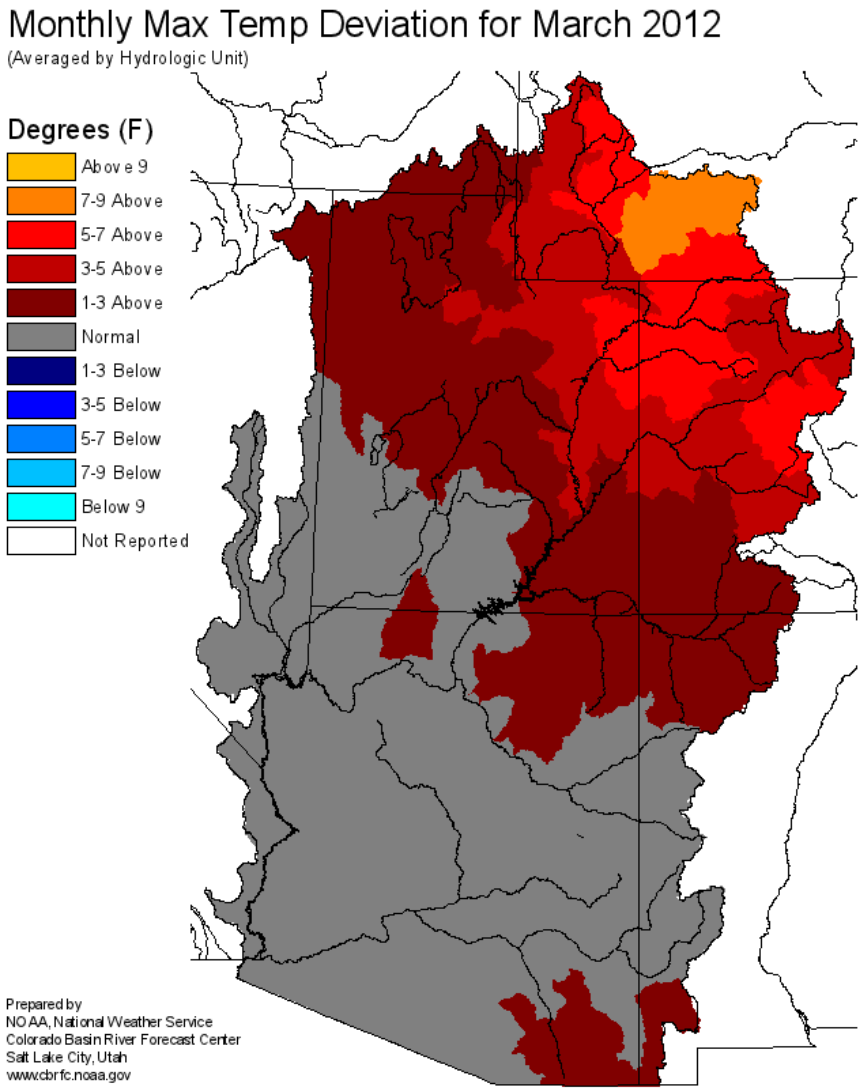
OBSERVED

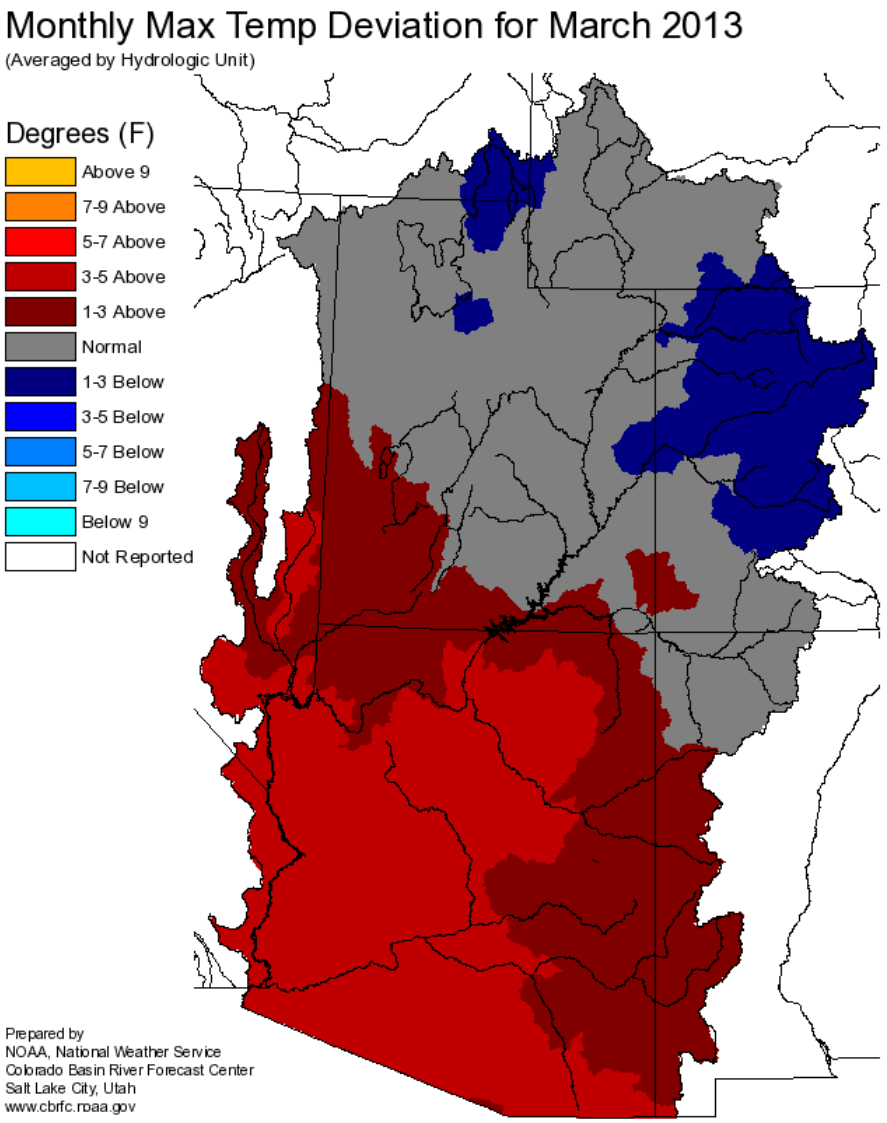


% OF NORMAL

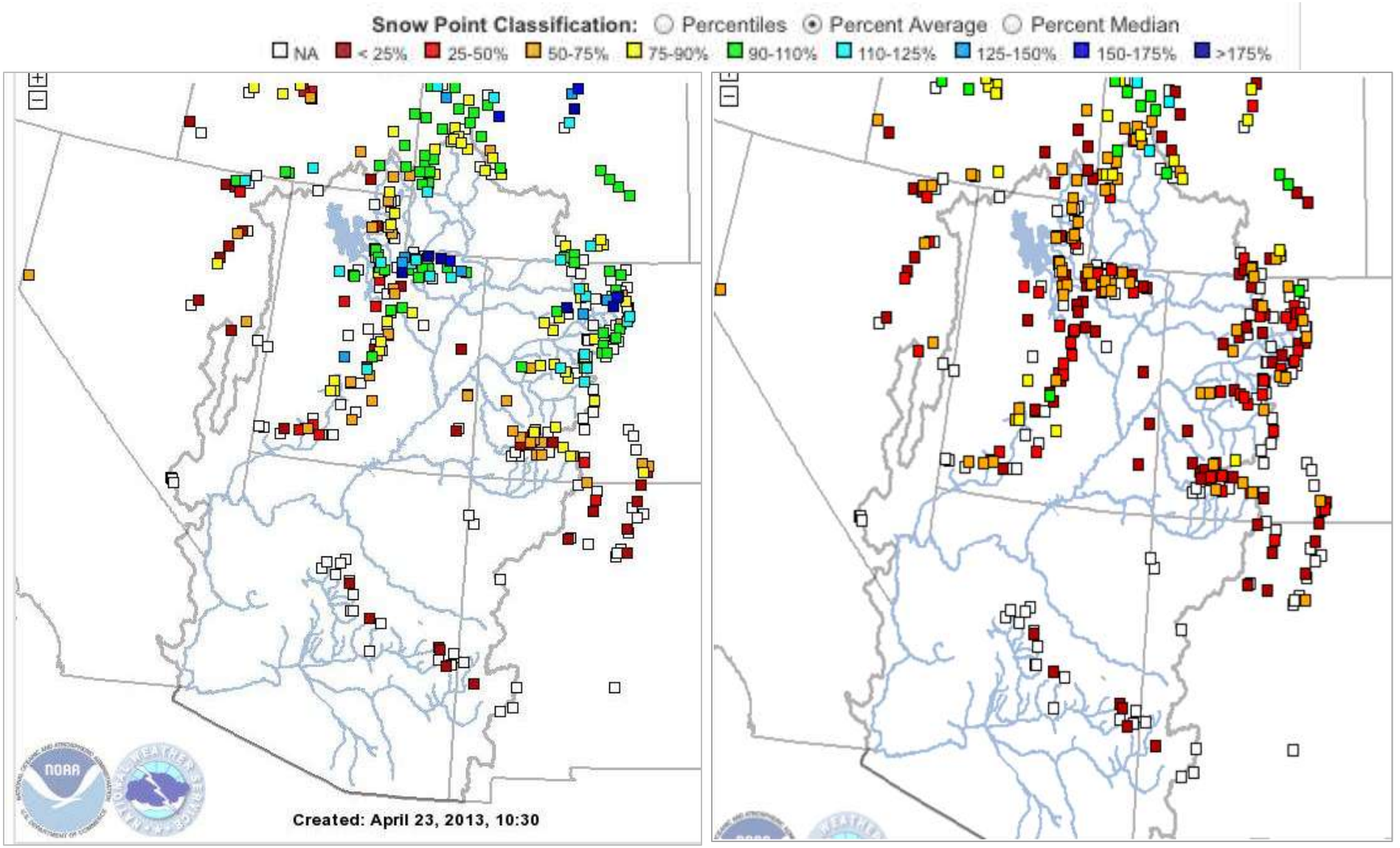
Temperatures:

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





Snow



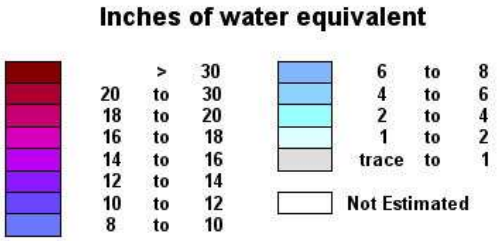
April 23, 2013

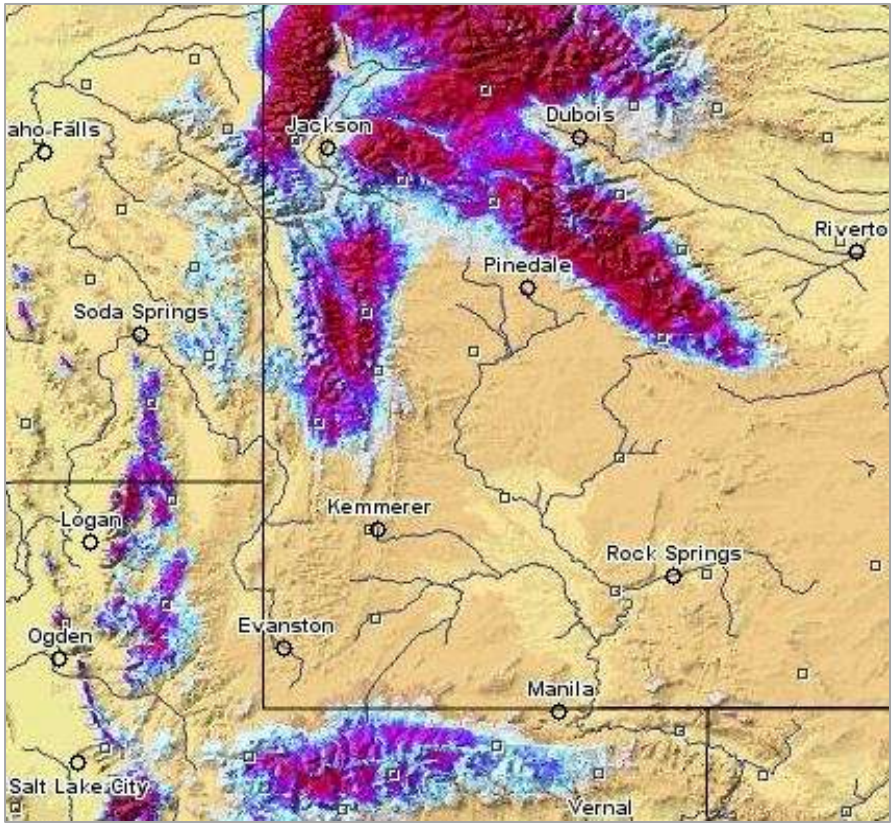
April 17, 2012

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

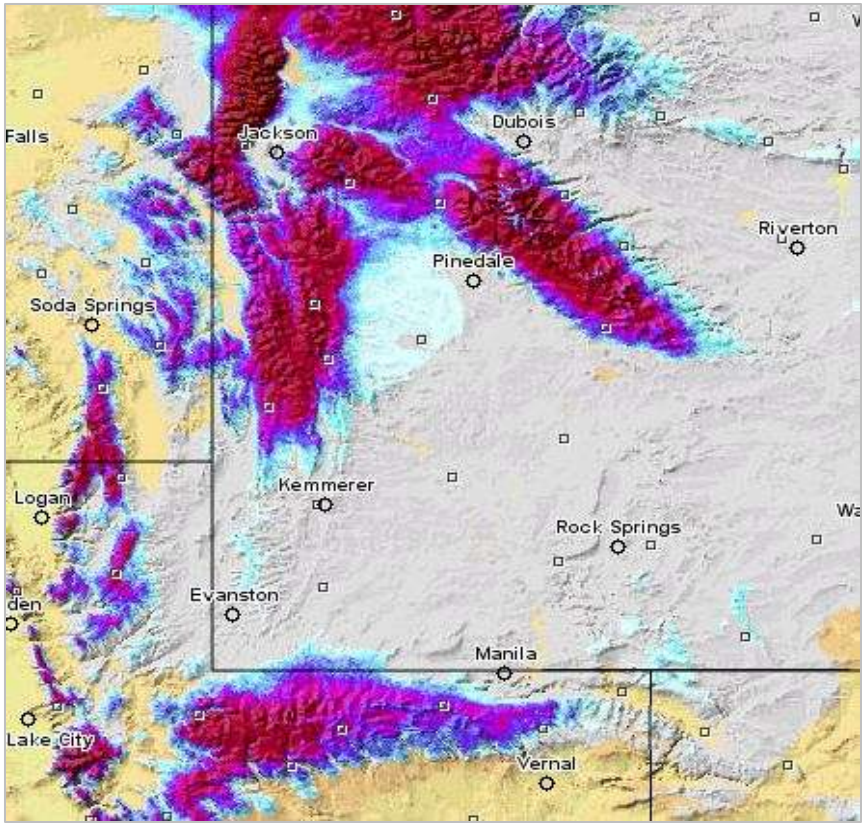
Snow: Upper Green

Retained and accumulated the snowpack longer compared to 2012





April 18 2012

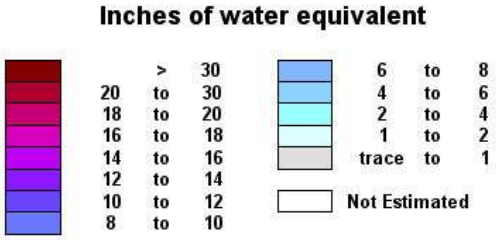


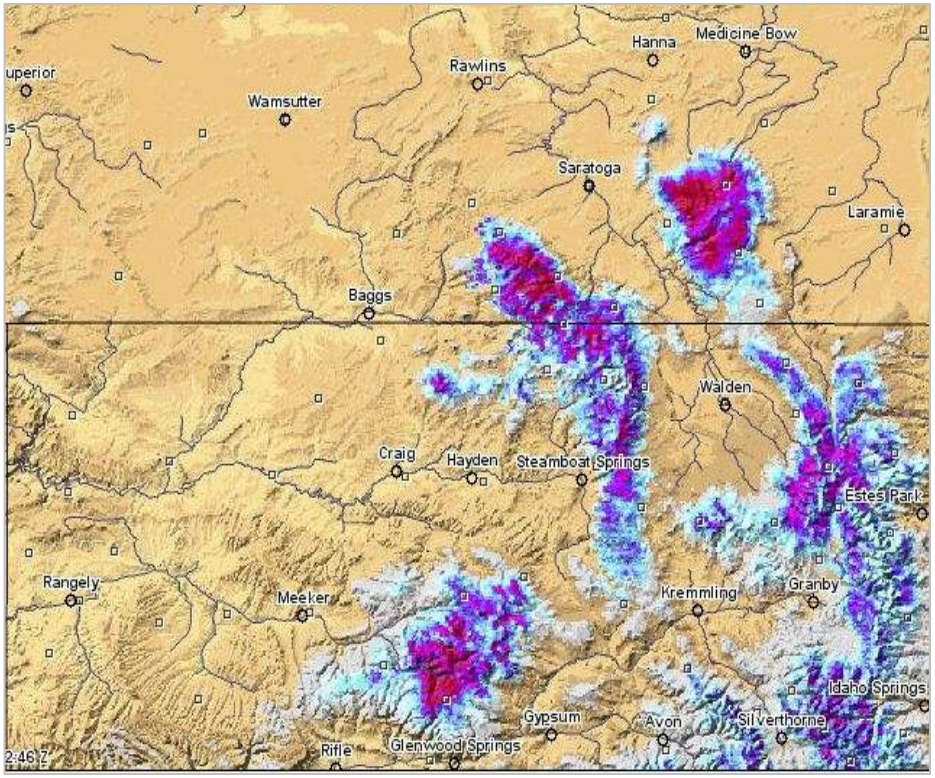
April 23 2013

Web Reference: http://www.nohrsc.nws.gov

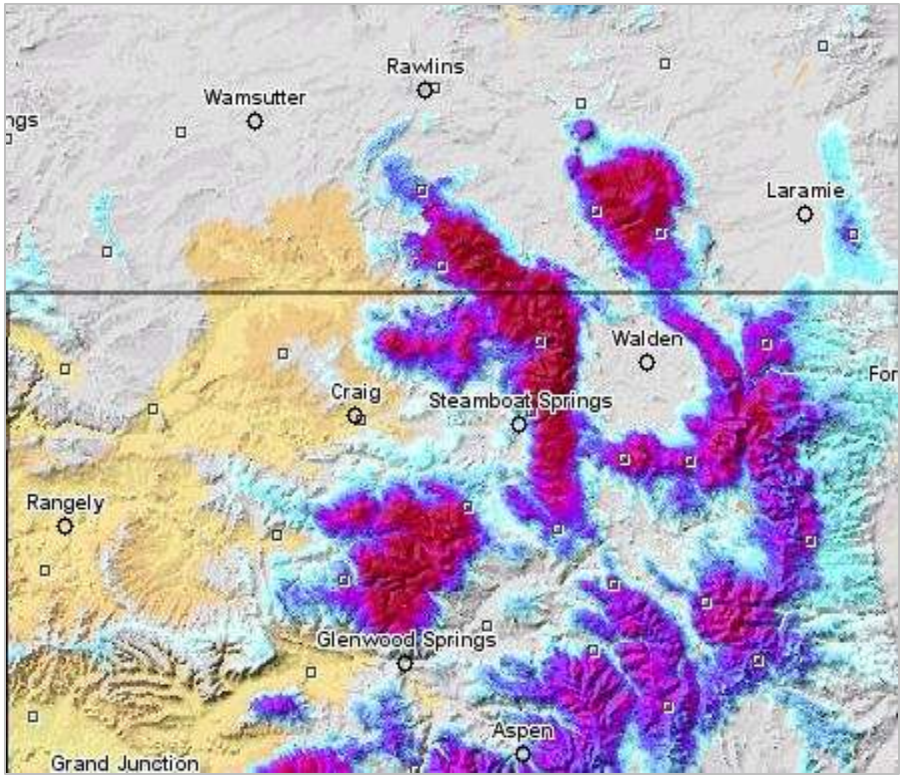
Snow: Yampa

Retained and accumulated the snowpack longer compared to 2012





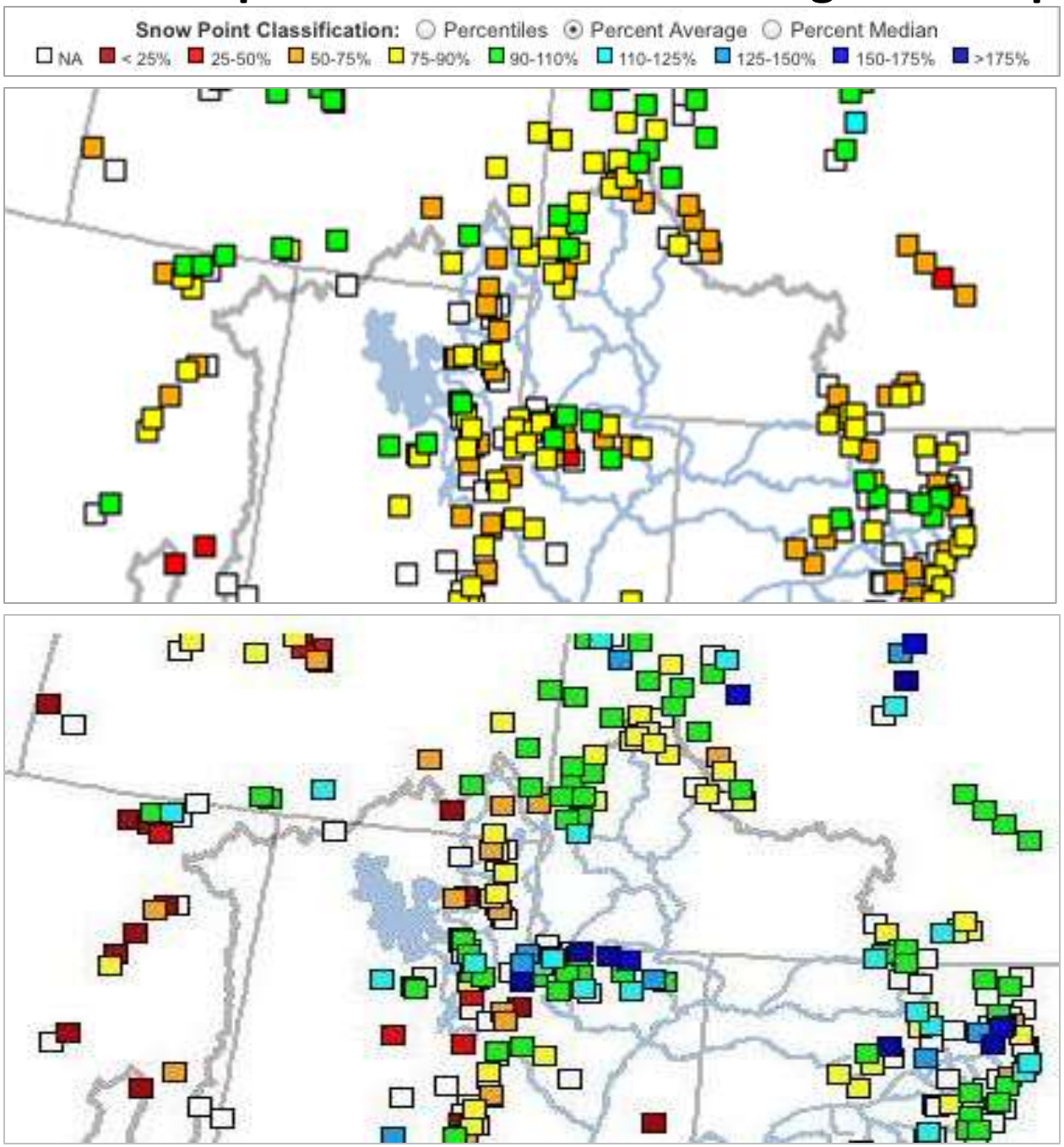
April 18 2012



April 23 2013

Web Reference: http://www.nohrsc.nws.gov

Snow: April Retention and Building of Snowpack



April 1, 2013:

Upper Green = 75%

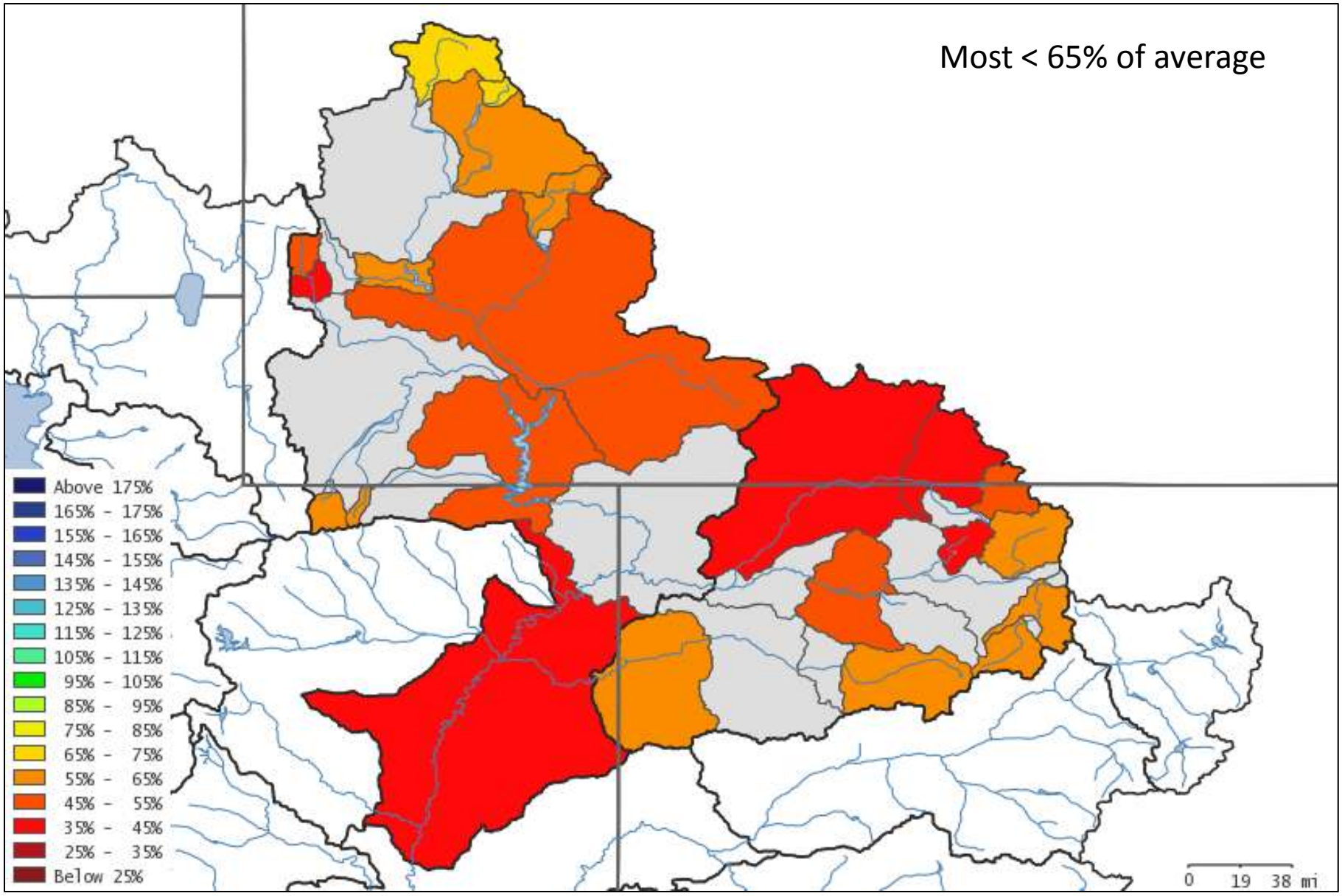
Yampa = 72%

April 23, 2013

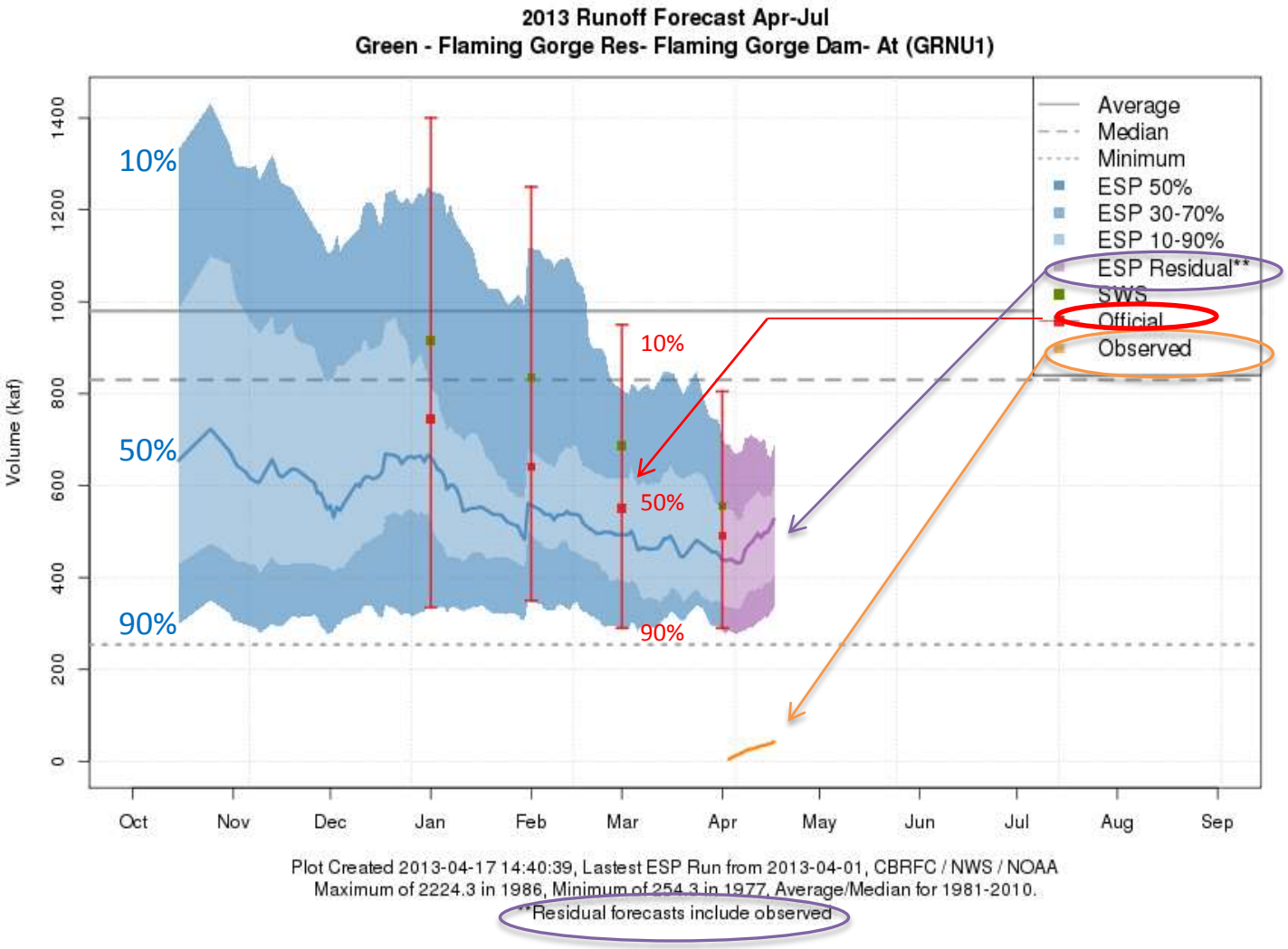
Upper Green = 100%

Yampa = 99%

April 1st Most Probable Water Supply Forecasts

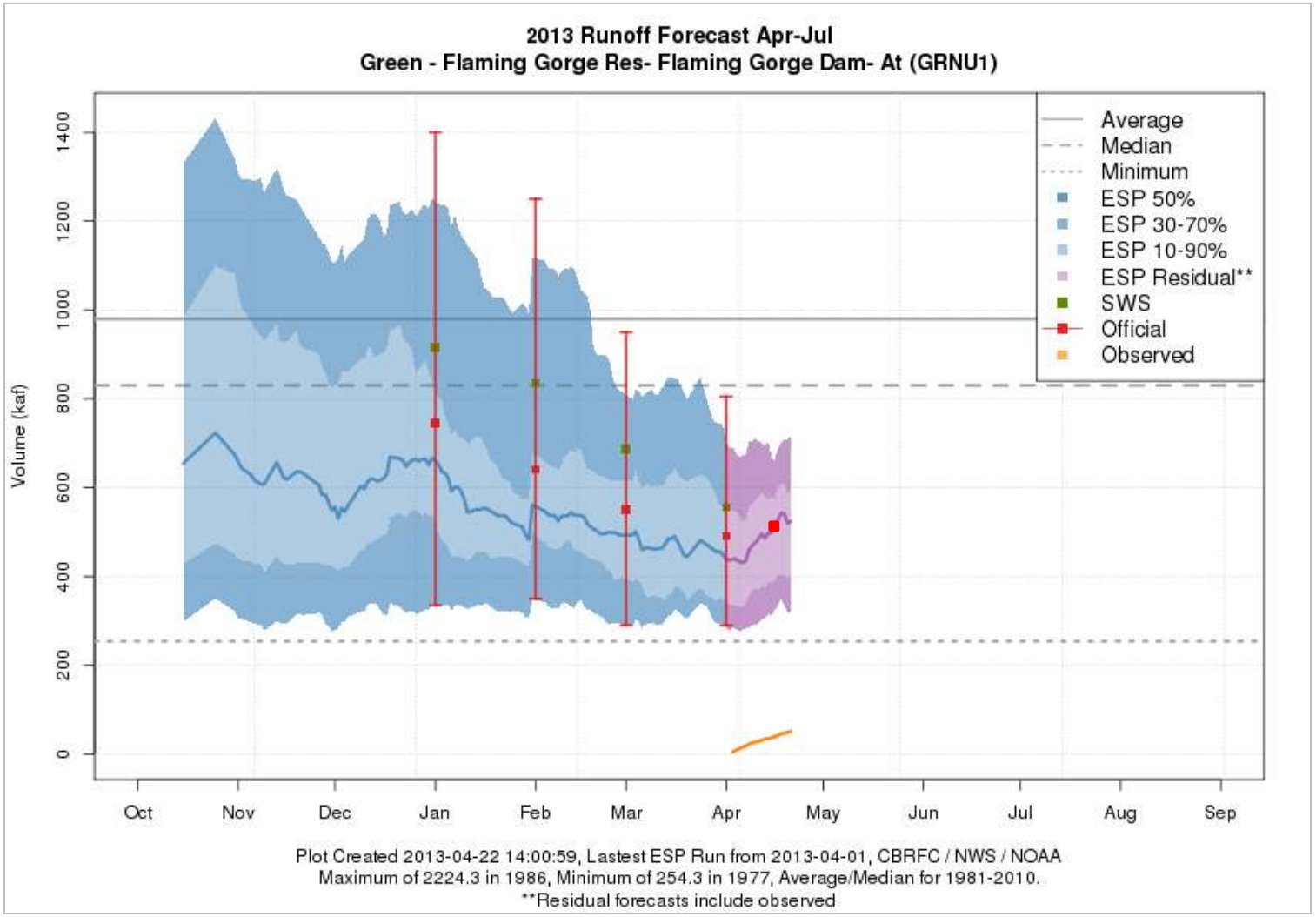


Daily Model Guidance (ESP) and Official Forecast Evolution Plot



Residual= April observed volume + model guidance to July 31

FORECASTS: Upper Green



April 1st:

MAX (10%): 805 kaf

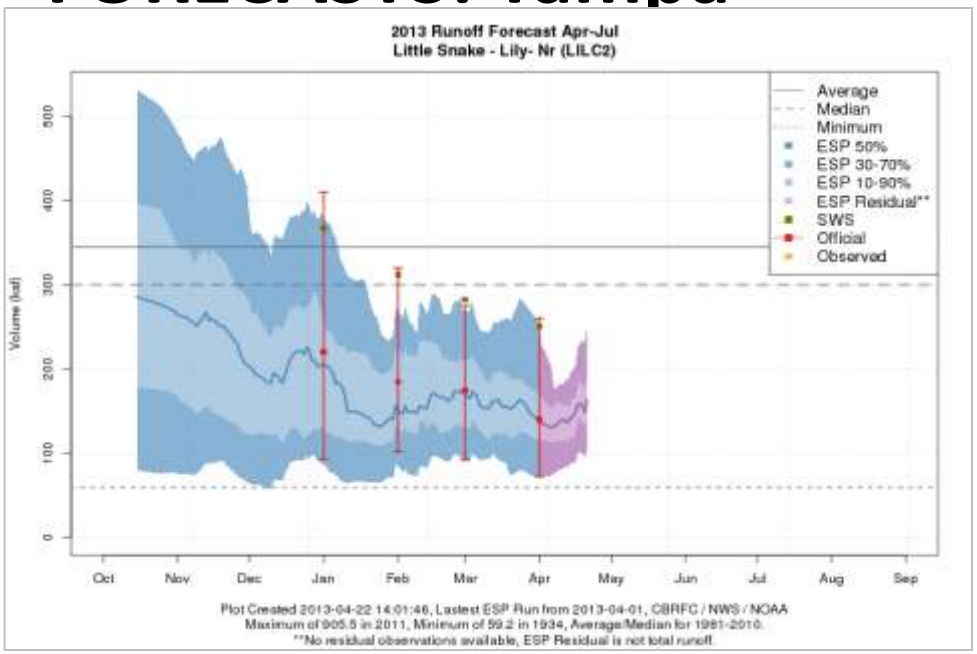
MP (50%): 490 kaf 50% avg

MIN (90%): 290 kaf

April 16 Update:

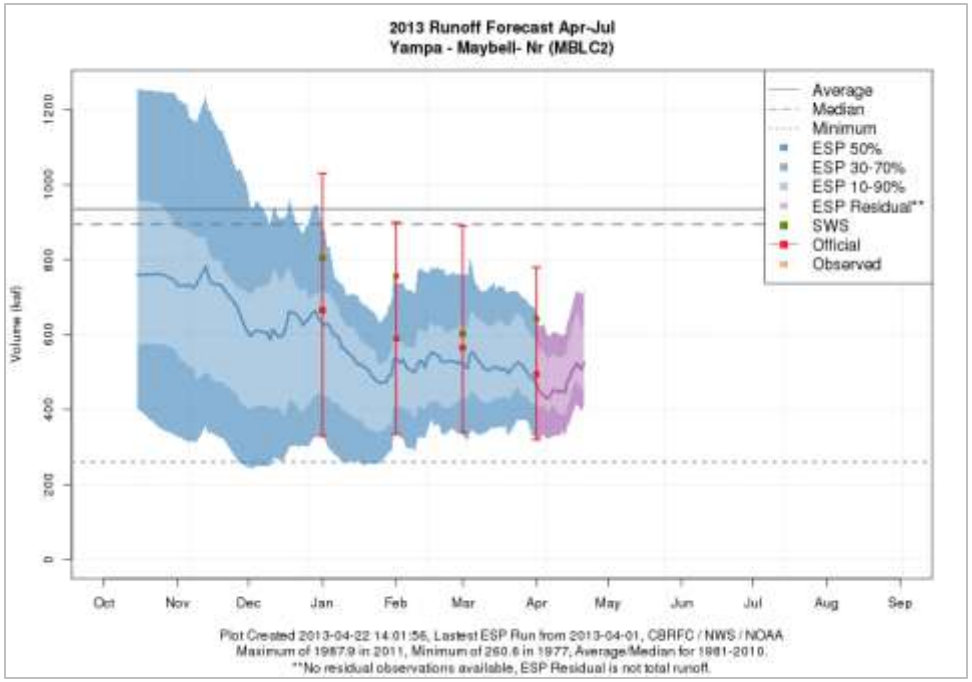
MP (50%): 530 kaf 54% avg

FORECASTS: Yampa



April 1st:
MAX (10%): 260 kaf
MP (50%): 140 kaf 41% avg
MIN (90%): 72 kaf

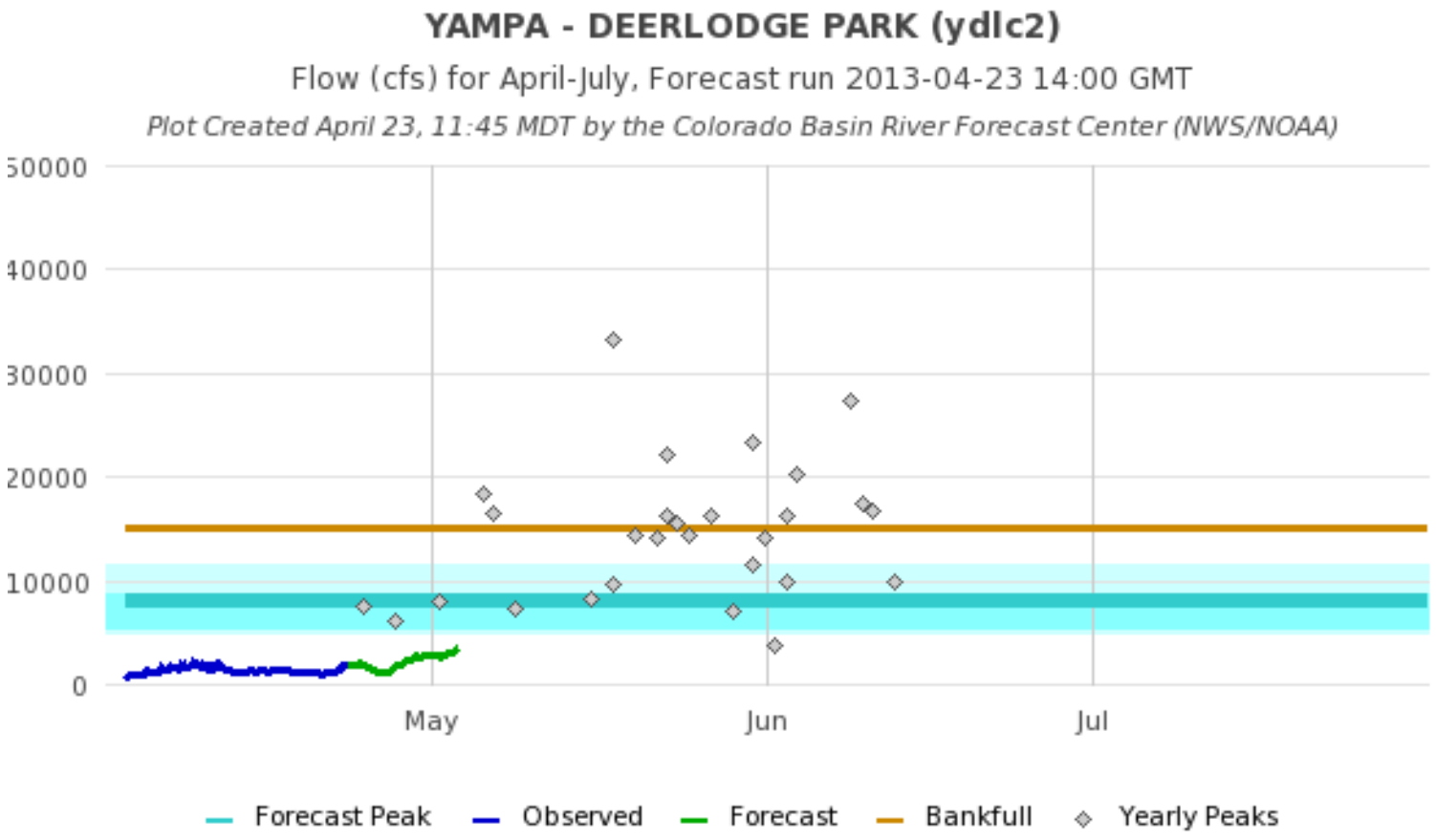
April 16 Update:
MP (50%): 166 kaf 48% avg



April 1st:
MAX (10%): 780 kaf
MP (50%): 495 kaf 53% avg
MIN (90%): 320 kaf

April 16 Update:
MP (50%): 565 kaf 60% avg

PEAKFLOW FORECASTS

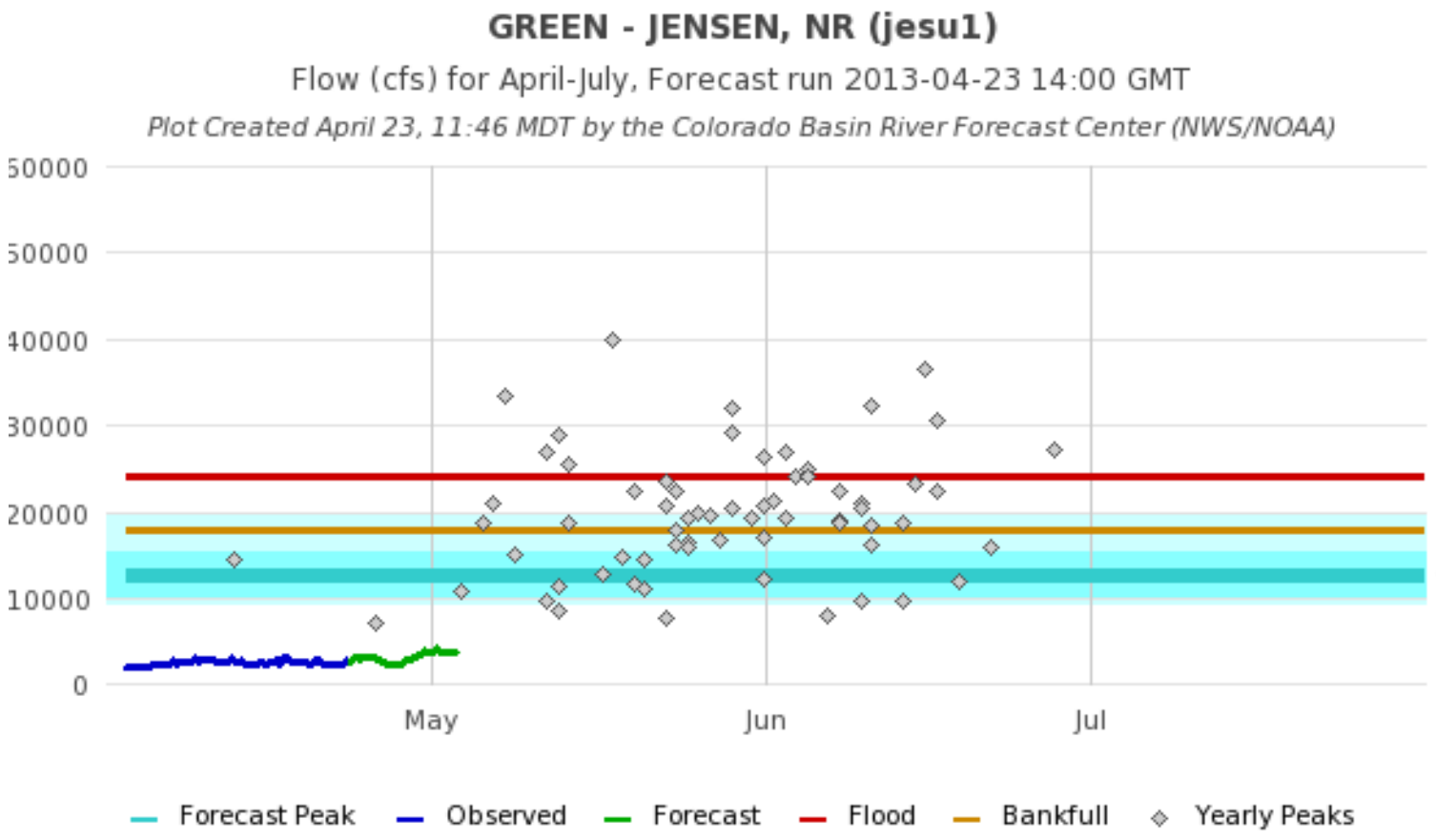


Exceedance Probability (cfs)

10% =	11,500
25% =	9,000
50% =	**8,000**
75% =	5,500
90% =	5,000

Web Reference: http://www.cbrfc.noaa.gov/gmap/list/list.php?type=peak

PEAKFLOW FORECASTS



Exceedance Probability (cfs)

10% = 20,000
25% = 15,500
50% = 12,500
75% = 10,000
90% = 9,500

Web Reference: http://www.cbrfc.noaa.gov/gmap/list/list.php?type=peak

Spring Weather Really Matters

- **Runoff characteristics are largely determined by the day-to-day spring weather.**
  - While large snow pack years increase chances for flooding, it is not an inevitability (dodged a bullet at many sites in 2011)
  - Small snow pack years can flood with the right sequence of spring temperatures and with flows enhanced by precipitation.
  - Rain events may play a larger role in the magnitude of the peak flow during very low snow years.
  - Keep an eye on our web page / daily forecasts

    (Daily Forecasts: http://www.cbrfc.noaa.gov/gmap/cmap2.php)

Feedback, Questions, Concerns always welcome….

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