

CBRFC Forecast Update: Upper Green and Yampa

April 30, 2015

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NWS Colorado Basin River Forecast Center





Today's Presentation

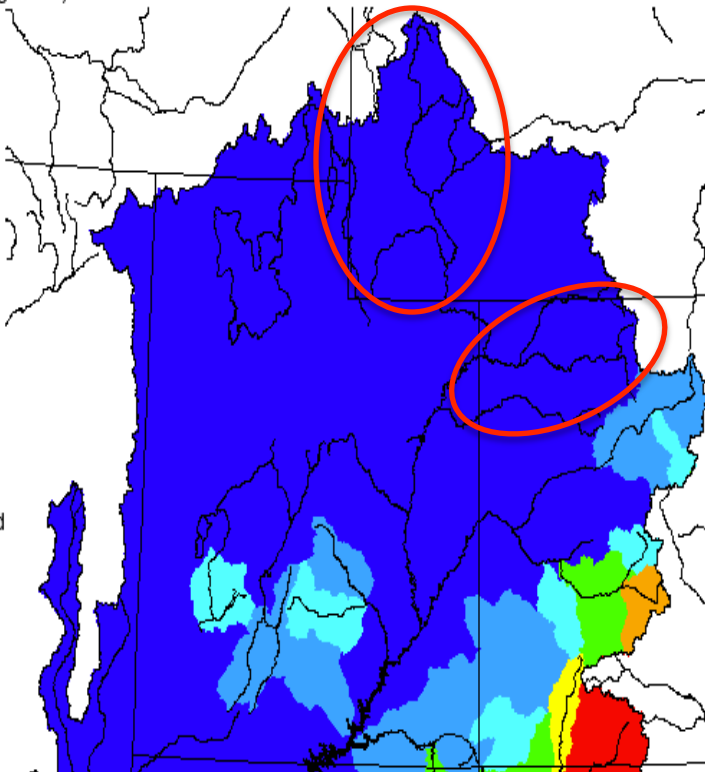
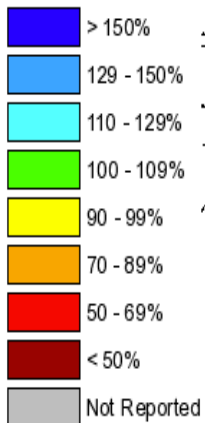
- Weather Review (Fall + Winter)
- Current conditions driving forecast:
 - Soil Moisture
 - Snow Conditions
- Forecasts
 - April-July Water Supply Volumes
 - Yampa Peak Flow
- Upcoming Weather

Late Summer/ Fall Precipitation

Monthly Precipitation for August 2014

(Averaged by Hydrologic Unit)

% Average

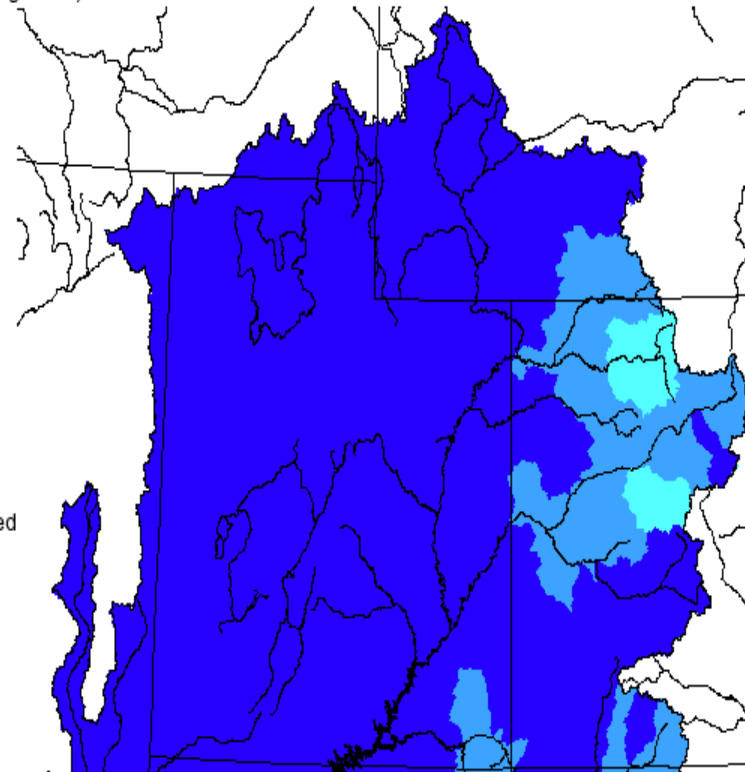
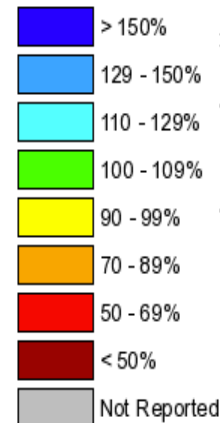


Green: 250%
Yampa: 280%

Monthly Precipitation for September 2014

(Averaged by Hydrologic Unit)

% Average



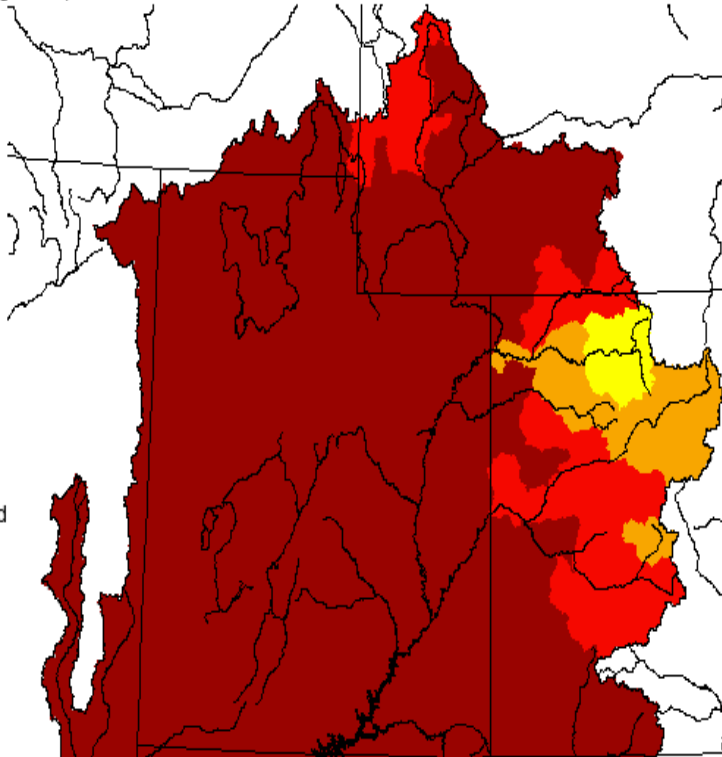
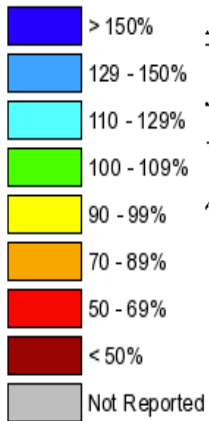
Green: 210%
Yampa: 145%

Fall Precipitation

Monthly Precipitation for October 2014

(Averaged by Hydrologic Unit)

% Average

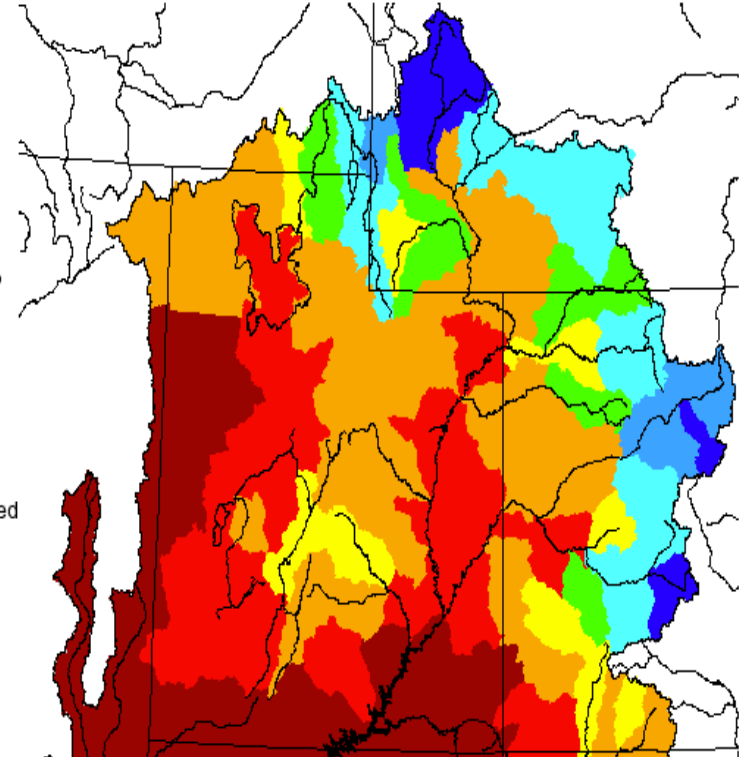
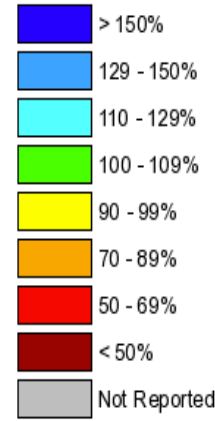


Green: 35%
Yampa: 70%

Monthly Precipitation for November 2014

(Averaged by Hydrologic Unit)

% Average



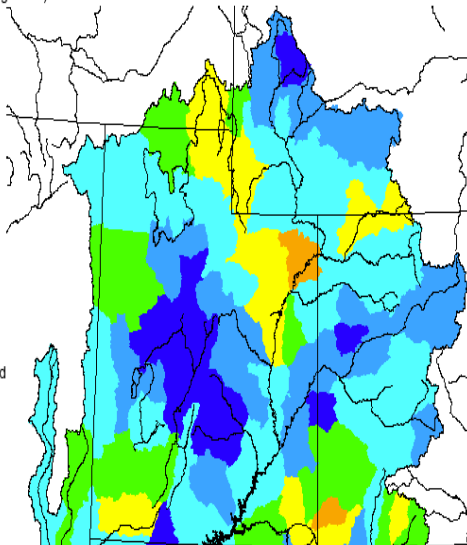
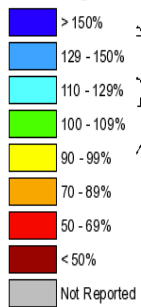
Green: 120%
Yampa: 105%

Winter Precipitation

Monthly Precipitation for December 2014

(Averaged by Hydrologic Unit)

% Average

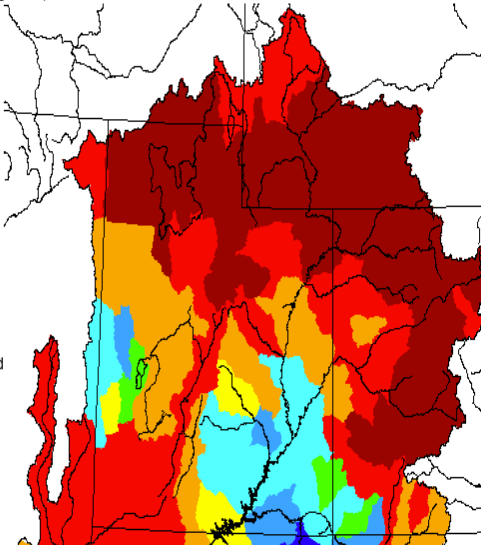
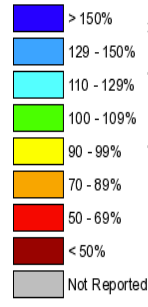


Green: 130%
Yampa: 115%

Monthly Precipitation for January 2015

(Averaged by Hydrologic Unit)

% Average

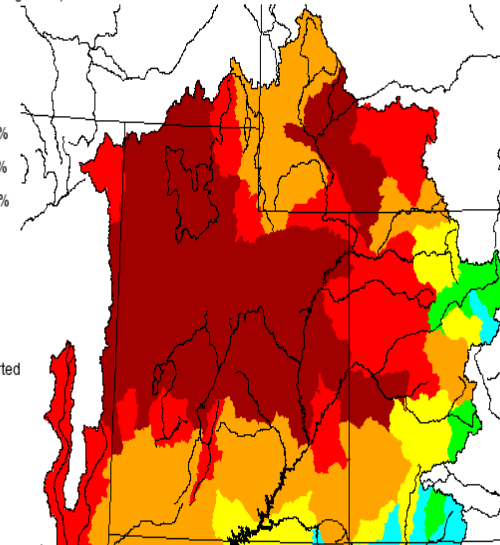
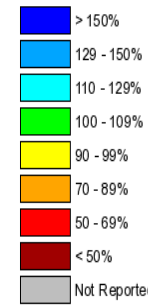


Green: 45%
Yampa: 40%

Monthly Precipitation for February 2015

(Averaged by Hydrologic Unit)

% Average



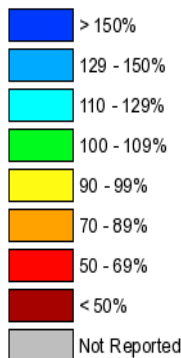
Green: 60%
Yampa: 65%

Spring and Seasonal Precipitation

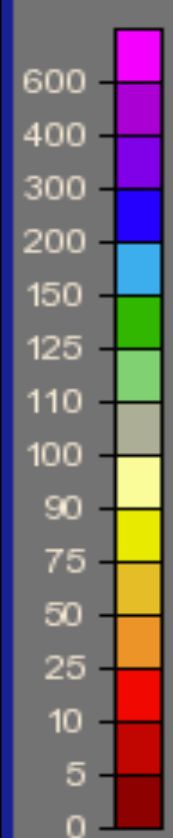
Seasonal Precipitation: Water Year to Date

Monthly Precipitation
(Averaged by Hydrologic Unit)

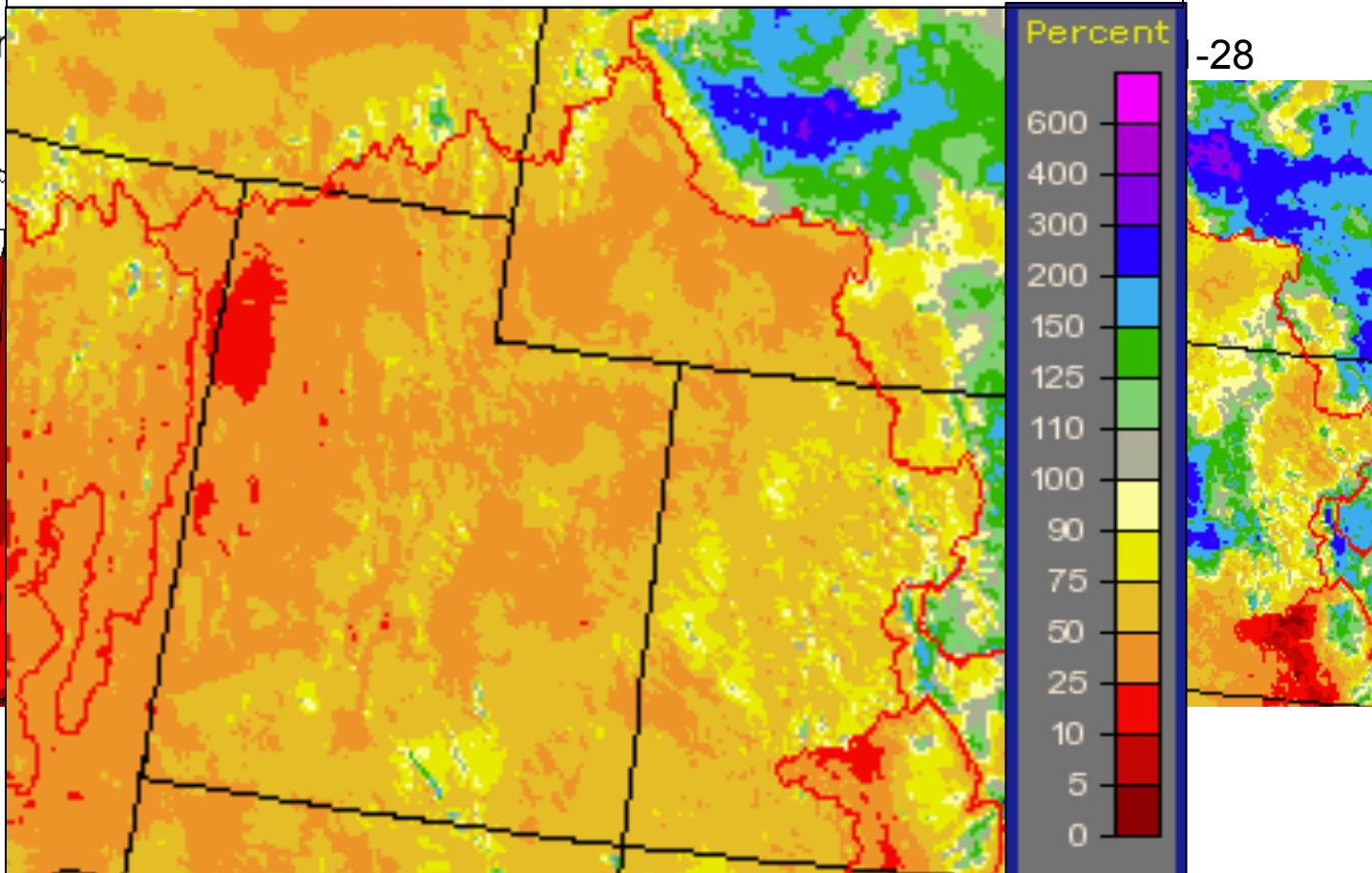
% Average



Percent



-28



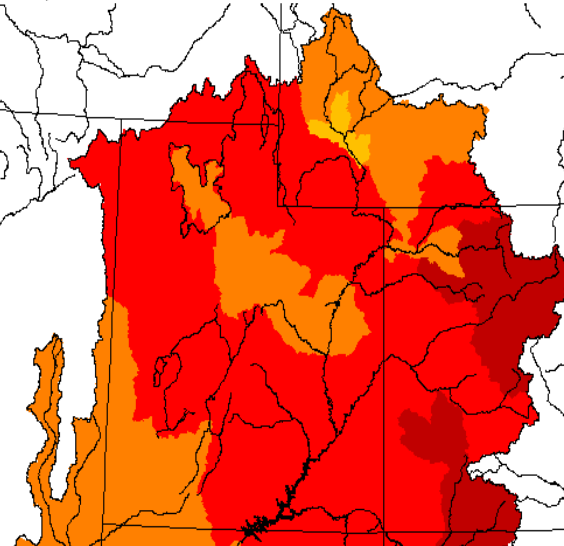
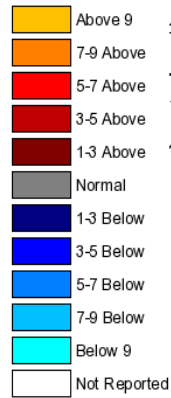
February/March Temperatures

* Warmest February/March on Record – Several Locations *

Monthly Max Temp Deviation for February 2015

(Averaged by Hydrologic Unit)

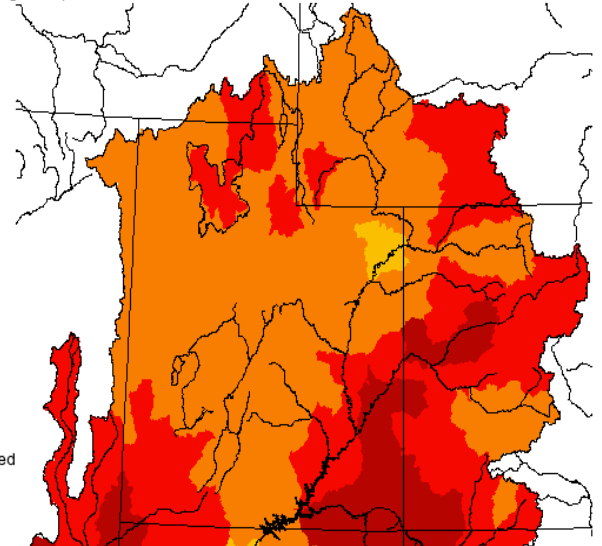
Degrees (F)



Monthly Min Temp Deviation for February 2015

(Averaged by Hydrologic Unit)

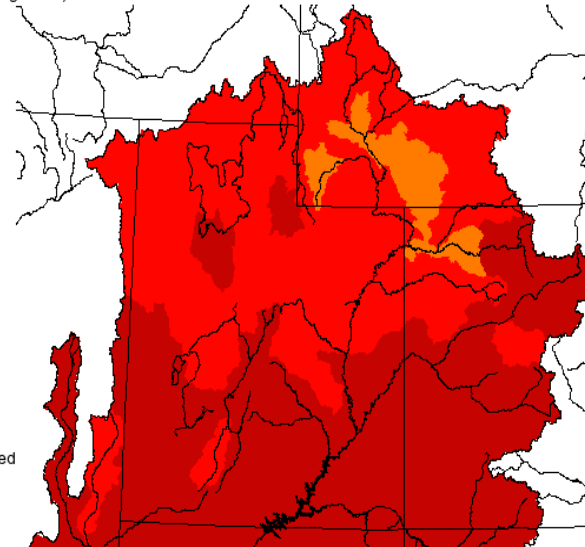
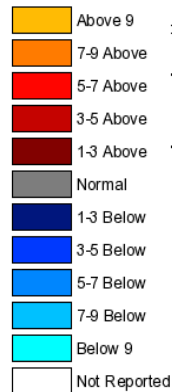
Degrees (F)



Monthly Max Temp Deviation for March 2015

(Averaged by Hydrologic Unit)

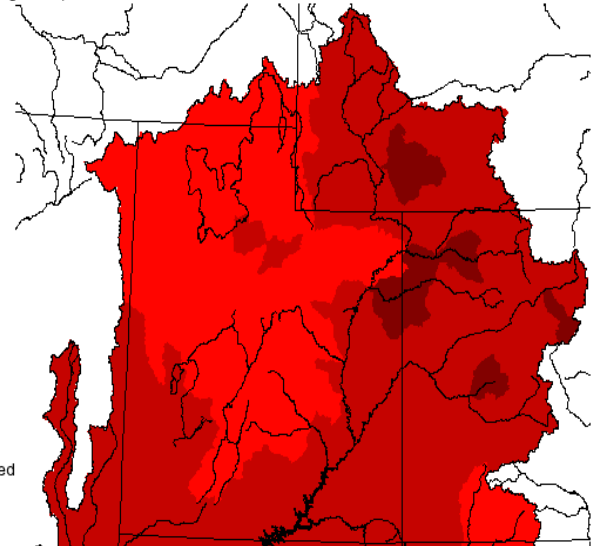
Degrees (F)



Monthly Min Temp Deviation for March 2015

(Averaged by Hydrologic Unit)

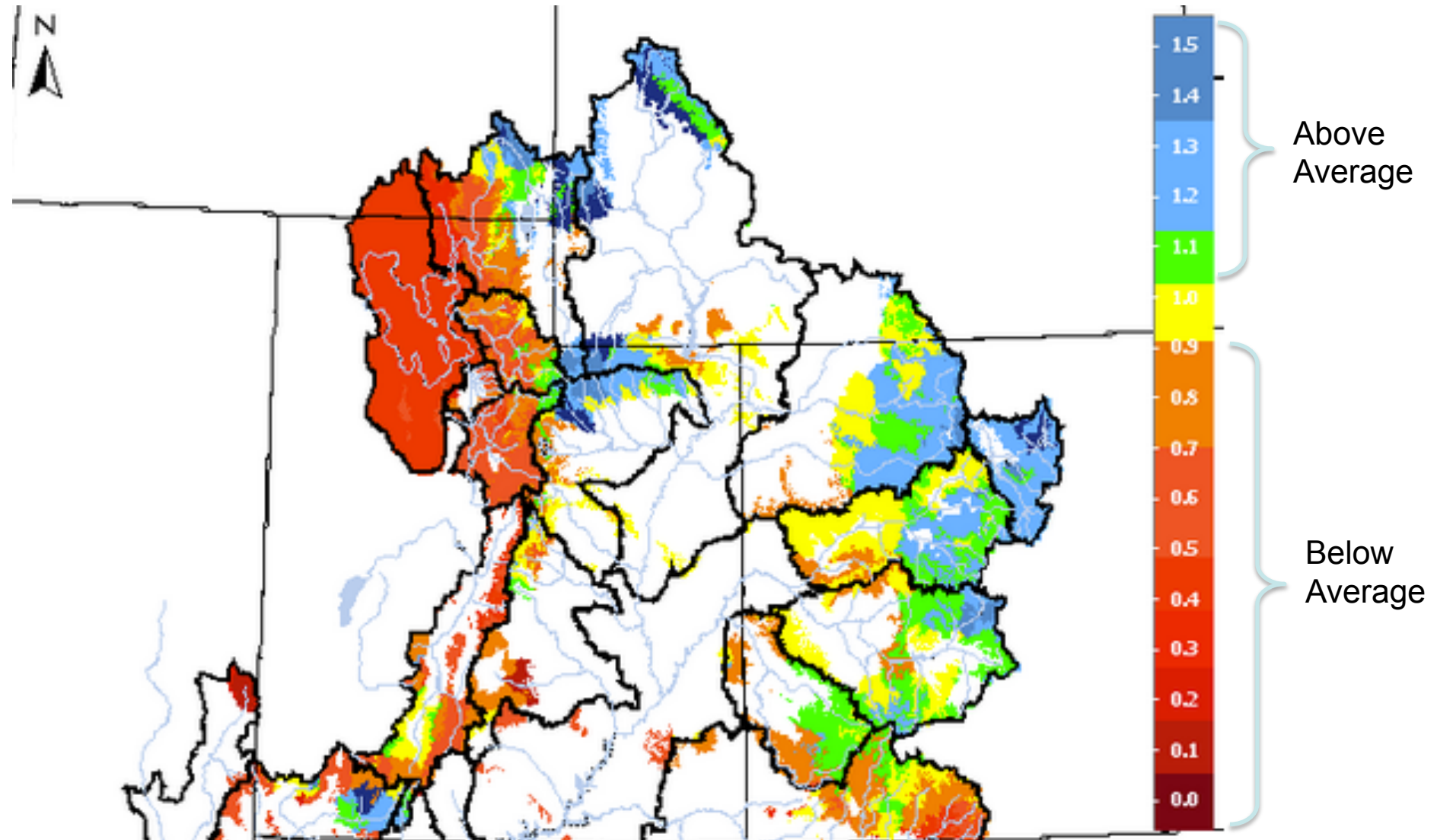
Degrees (F)



February

March

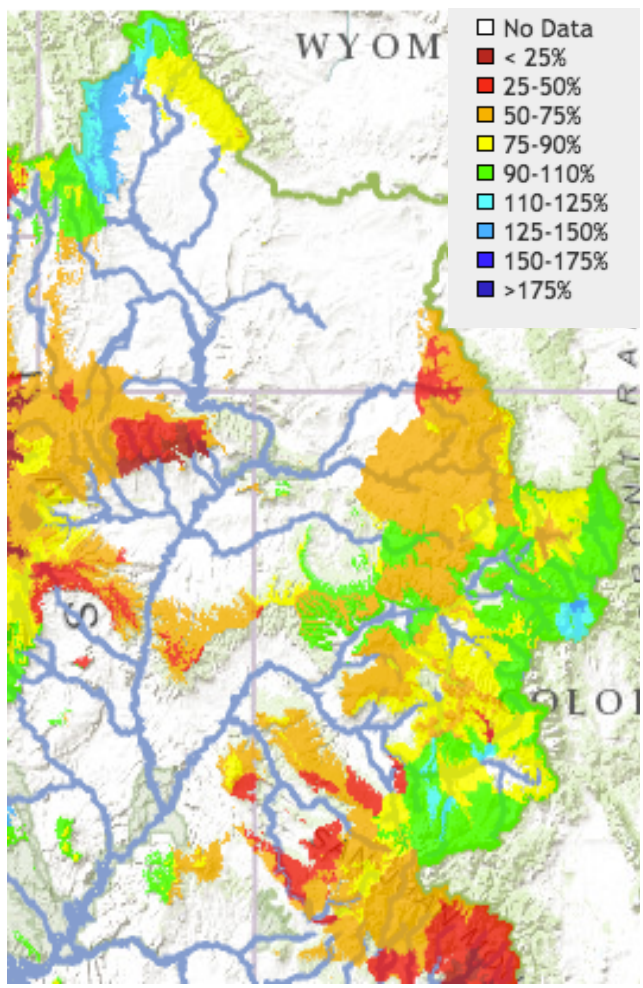
Forecast Drivers: Soil Moisture Entering Winter



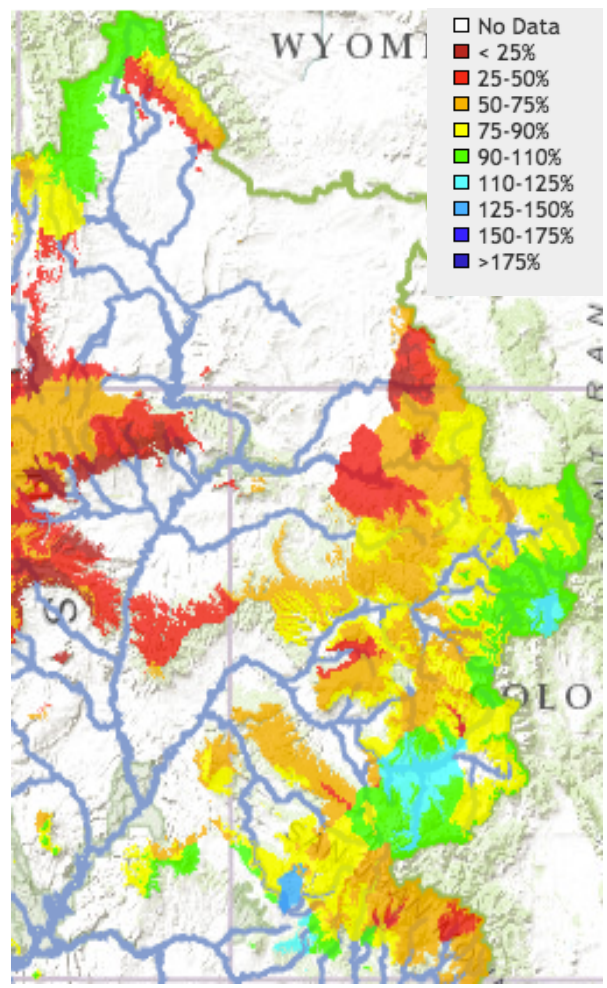
Soil Moisture (as a % of average): CBRFC Forecast Model

Forecast Drivers: Snow Conditions

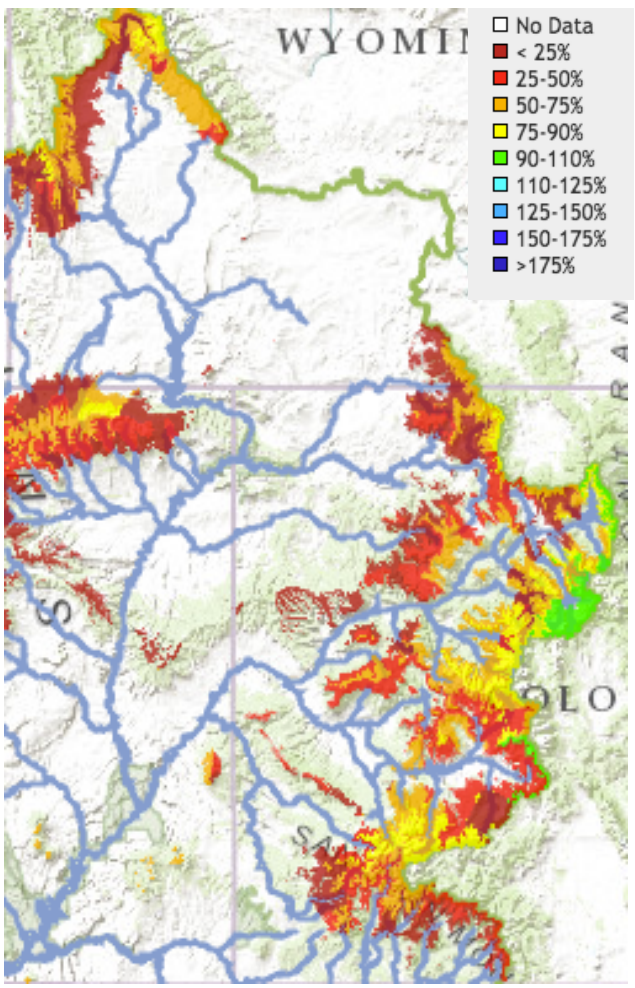
Snow (as a % of average): CBRFC Forecast Model



February 1st



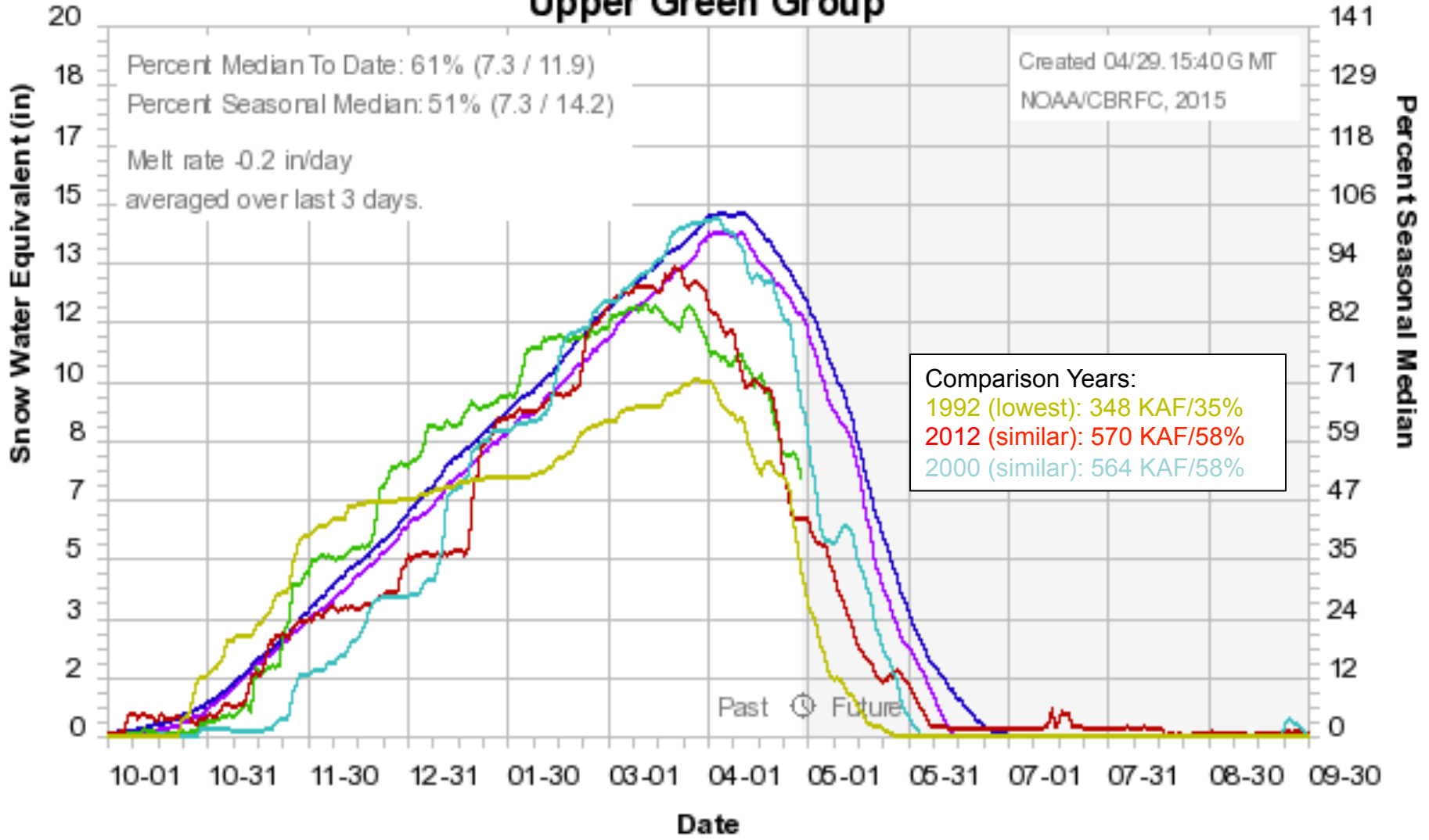
March 1st



April 27th

Forecast Drivers: Snow Conditions

Colorado Basin River Forecast Center Upper Green Group

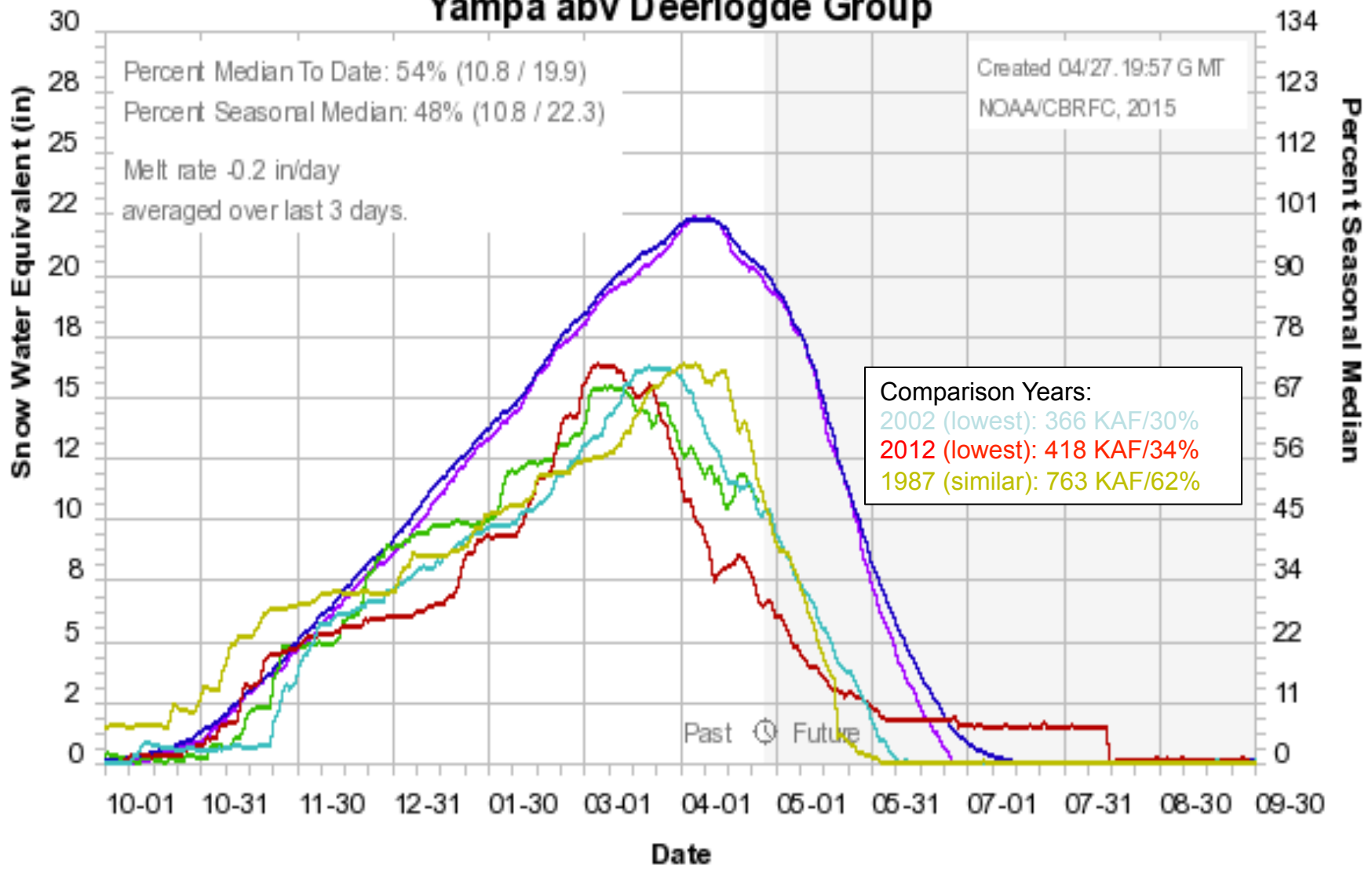


Median 1981-2010 Average 1981-2010 2015 2012 2000 1992 1992

Forecast Drivers: Snow Conditions

Colorado Basin River Forecast Center

Yampa abv Deerlogde Group

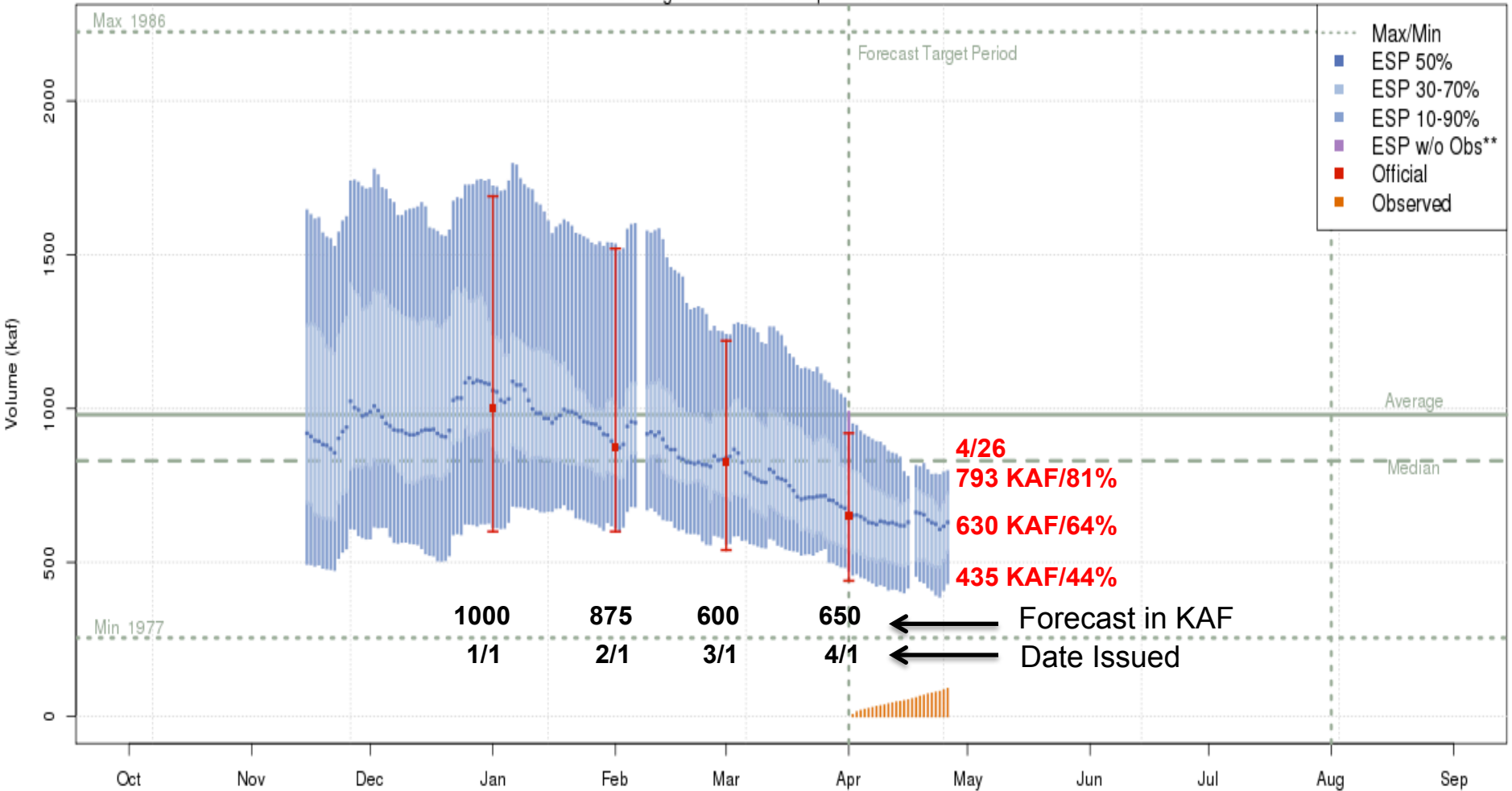


Median 1981-2010 Average 1981-2010 2015 2012 2002 1987

Forecast: Flaming Gorge Inflow

Seasonal Forecast Progression

Green - Flaming Gorge Res- Flaming Gorge Dam- At (GRNU1)
 2015-04-01 Apr-Jul Official 50% Forecast: 650 kaf (66% of average)
 ESP is Unregulated and No Precipitation Forecast Included

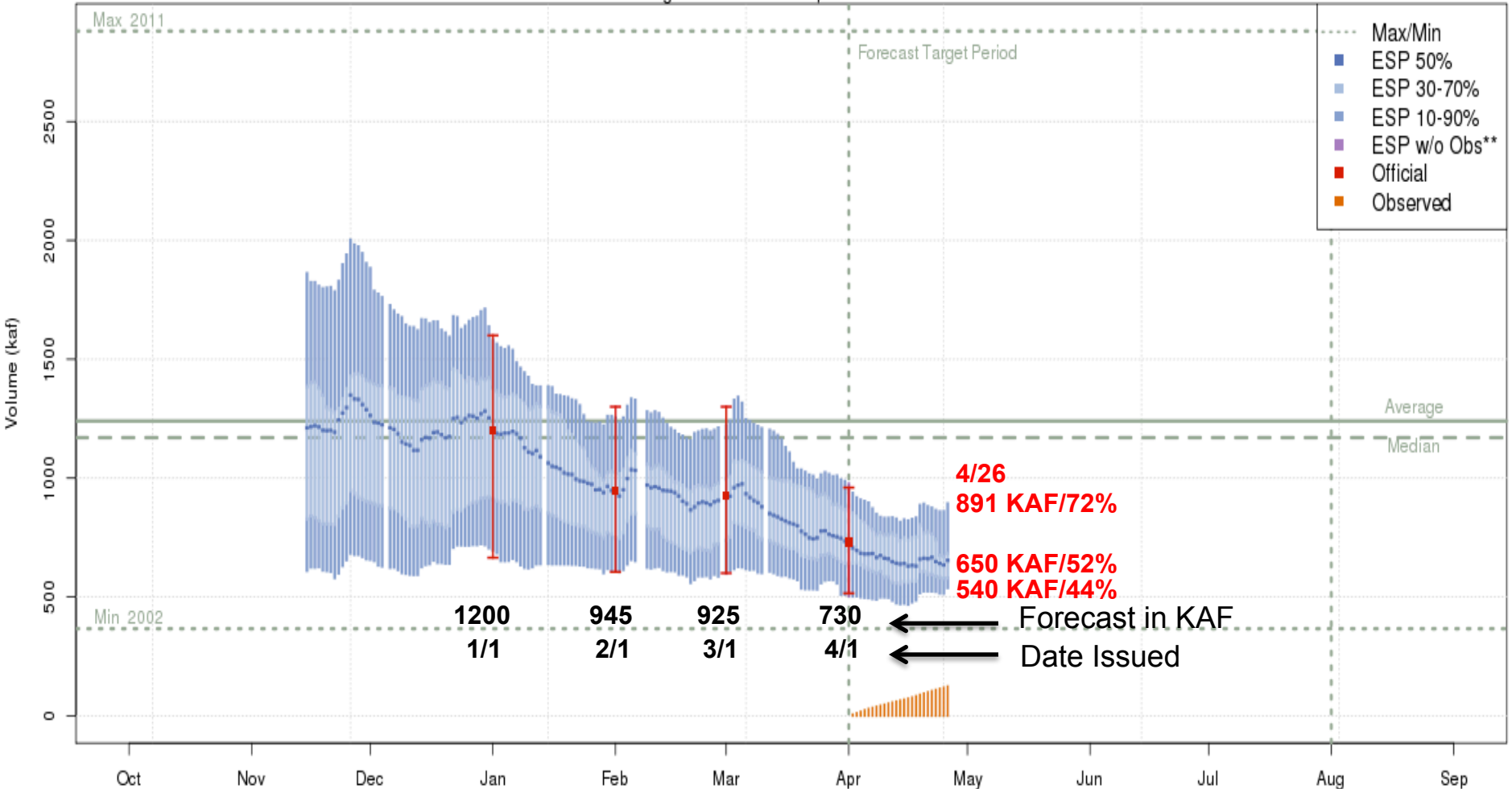


The latest (2015-04-26) 50% ESP forecast is 630 kaf.
 Plot Created 2015-04-26 14:16:34, NOAA / NWS / CBRFC
 Forecasts in the forecast target period include observed values.

Forecast: Yampa near Deerlodge

Seasonal Forecast Progression

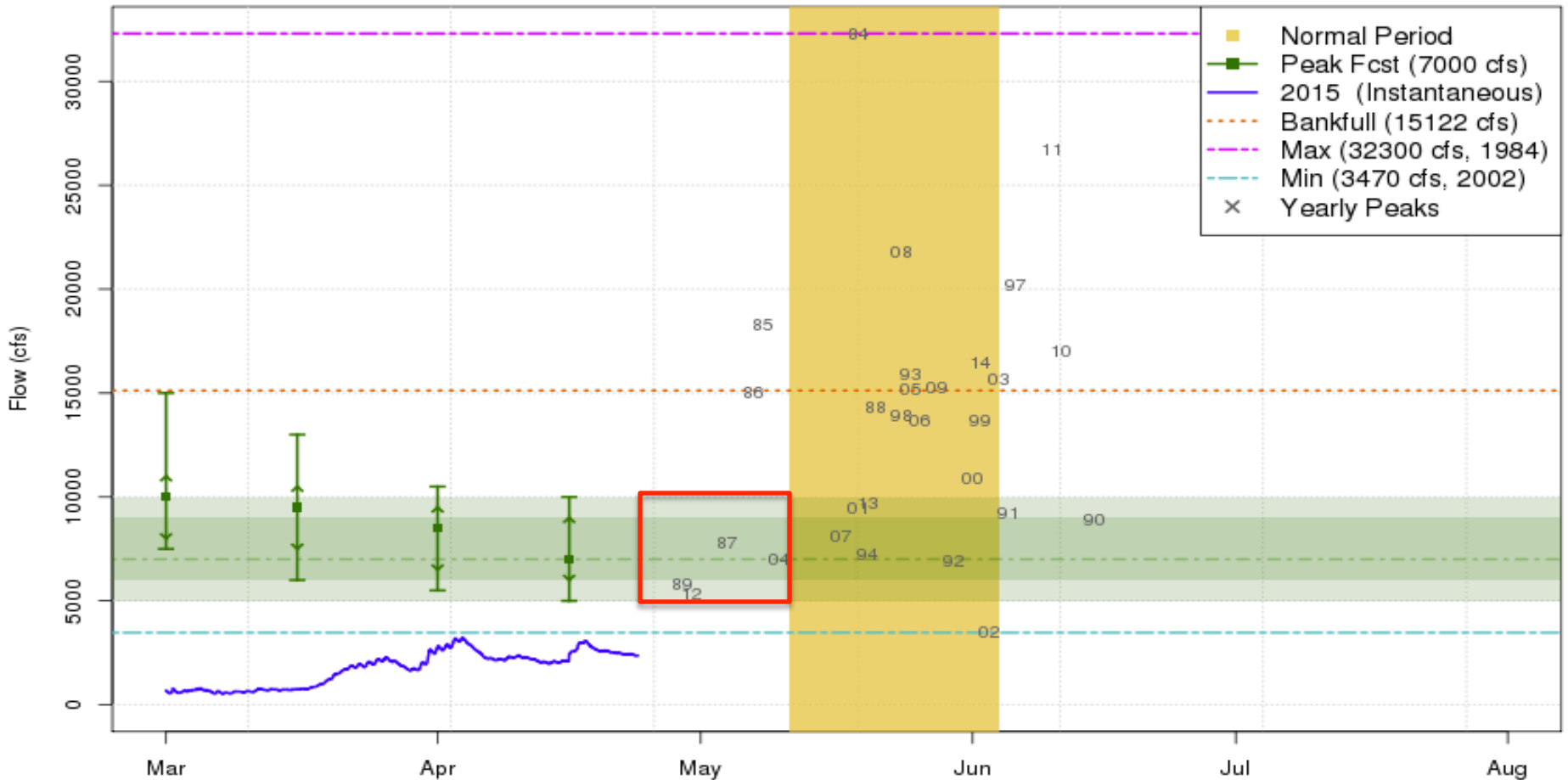
Yampa - Deerlodge Park (YDLC2)
 2015-04-01 Apr-Jul Official 50% Forecast: 730 kaf (59% of average)
 ESP is Unregulated and No Precipitation Forecast Included



The latest (2015-04-26) 50% ESP forecast is 653 kaf.
 Plot Created 2015-04-26 14:42:53, NOAA / NWS / CBRFC
 Forecasts in the forecast target period include observed values.

Peak Flow Forecast

2015 Mean Daily Peak Flow Forecast
Yampa - Deerlodge Park (YDLC2)



These graphics are updated approximately every two weeks between 3/1 and 5/1

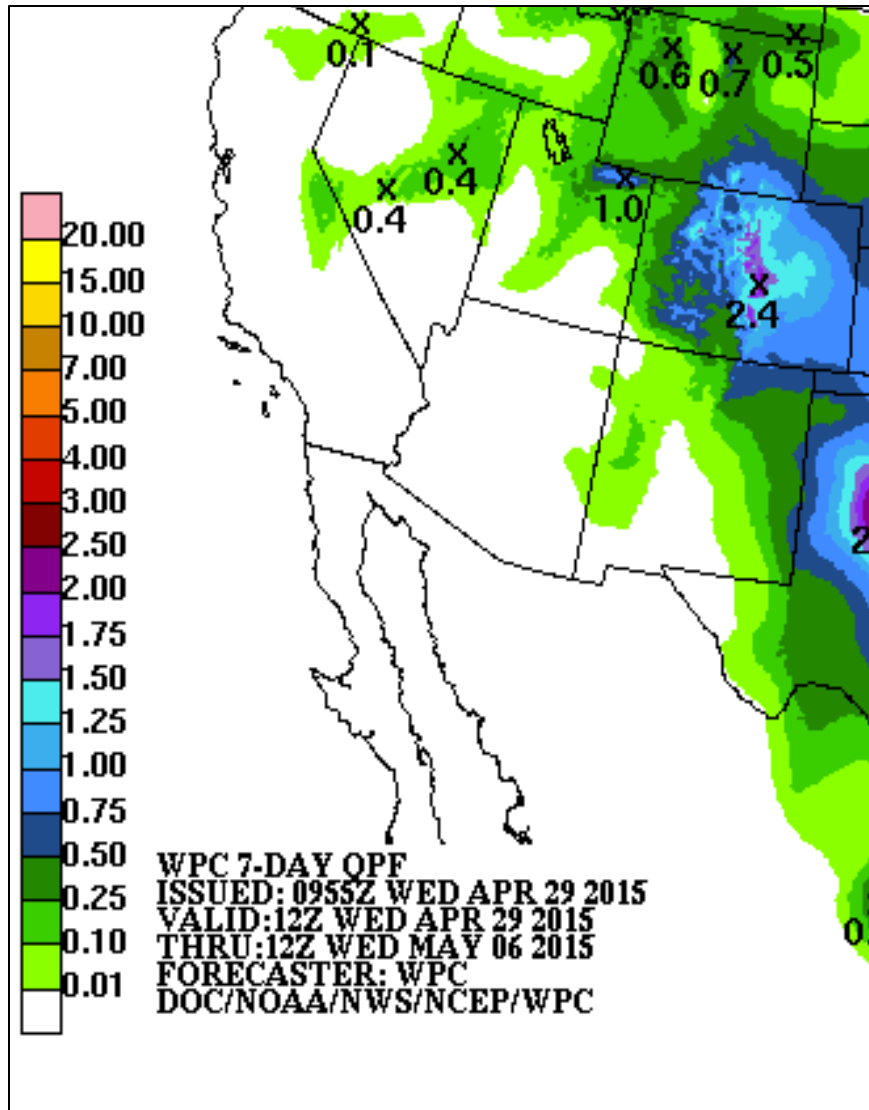
Plot Created 2015-04-23 15:23:16

CBRFC / NWS / NOAA

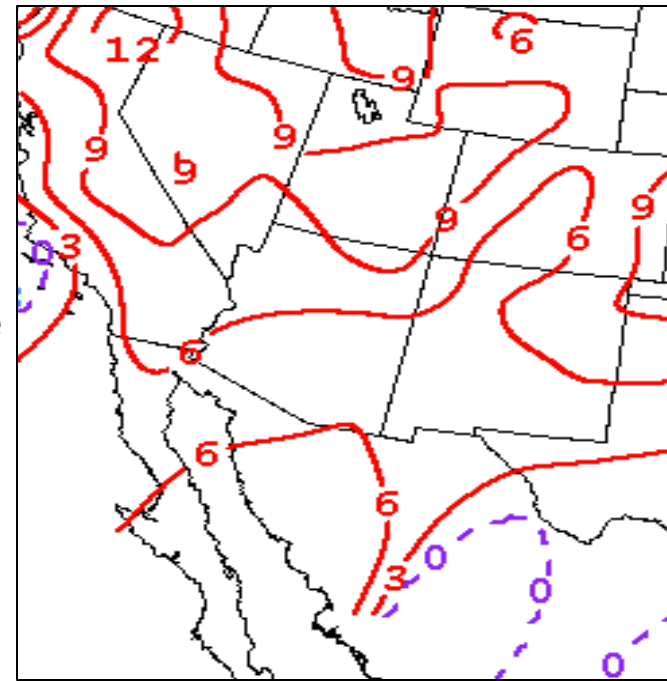
ID	River	Location	Flood Flow	PI	Issue Date	Mean Daily 90	Mean Daily 75	Mean Daily 50	Mean Daily 25	Mean Daily 10	Inst 90	Inst 75	Inst 50	Inst 25	Inst 10
YDLC2	Yampa	Deerlodge Park	NA	◆	2015-04-16	5000	6000	7000	9000	10000	5400	6400	7400	9400	10000

Weather Forecasts

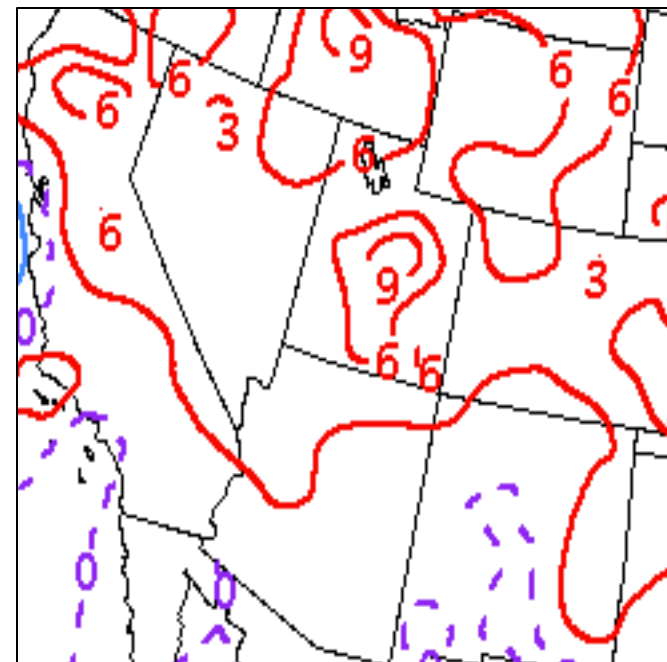
7 Day Forecast Precipitation
Issued 4/29



Days 1-5
Mean Max
Temperature
Anomaly
Issued 4/29

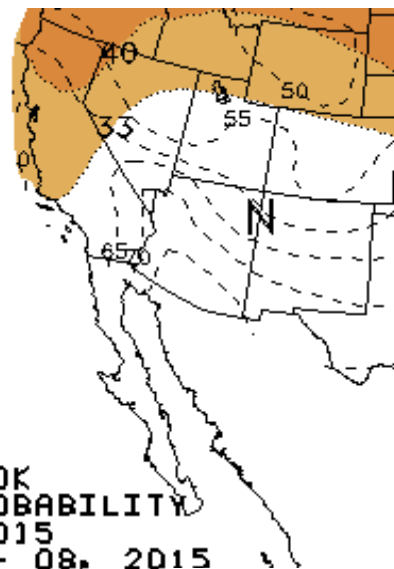


Days 3-7
Mean Max
Temperature
Anomaly
Issued 4/29

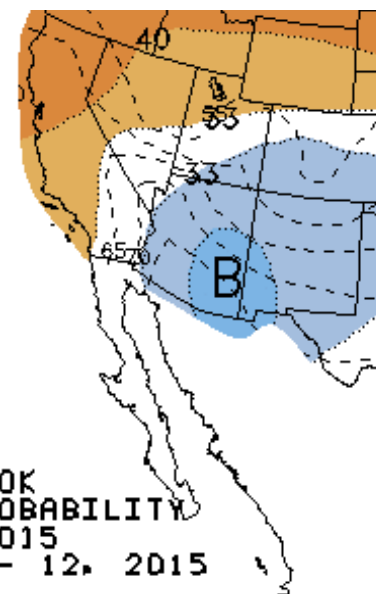


Weather Forecasts

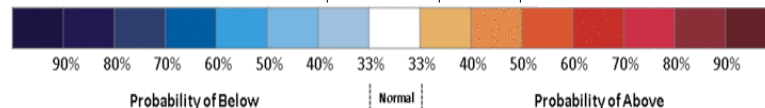
Temperature



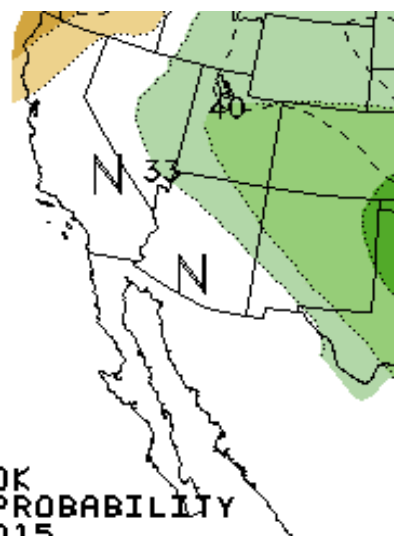
6-10 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 28 APR 2015
VALID MAY 04 - 08, 2015



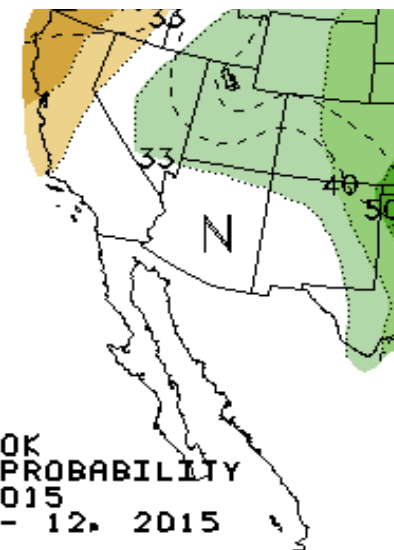
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 28 APR 2015
VALID MAY 06 - 12, 2015



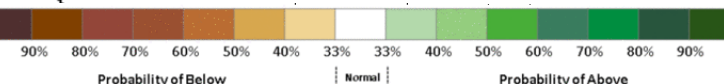
Precipitation



6-10 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 28 APR 2015
VALID MAY 04 - 08, 2015



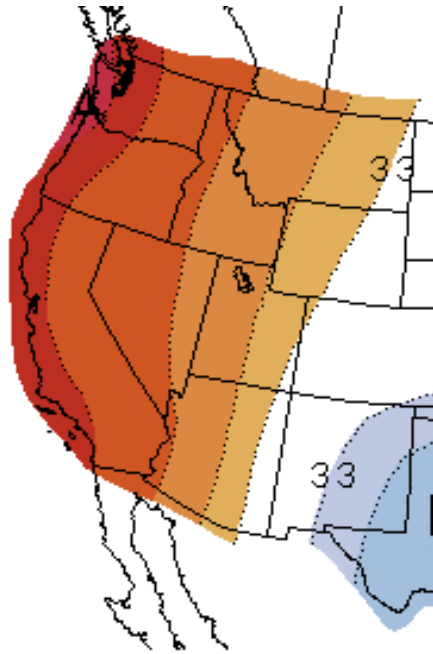
8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 28 APR 2015
VALID MAY 06 - 12, 2015



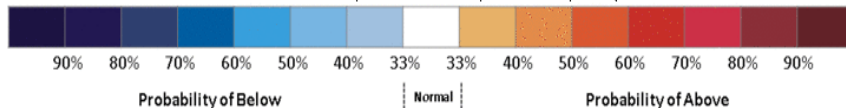
Long Term Weather Outlook

3 month Outlook: May-July

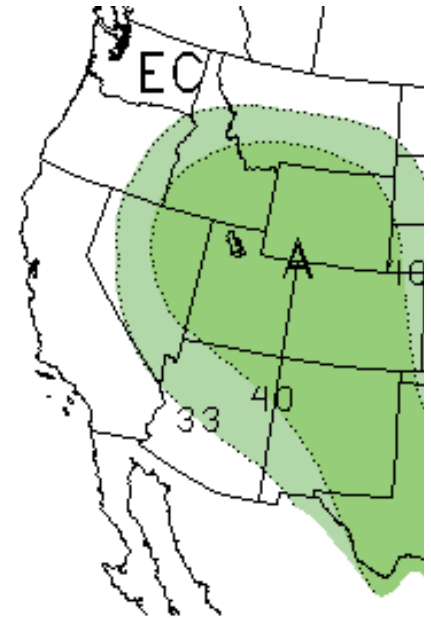
Temperature



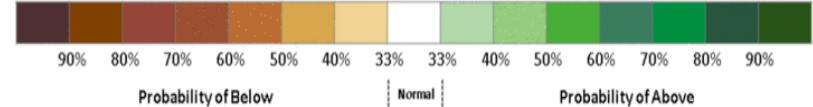
THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2015
MADE 16 APR 2015



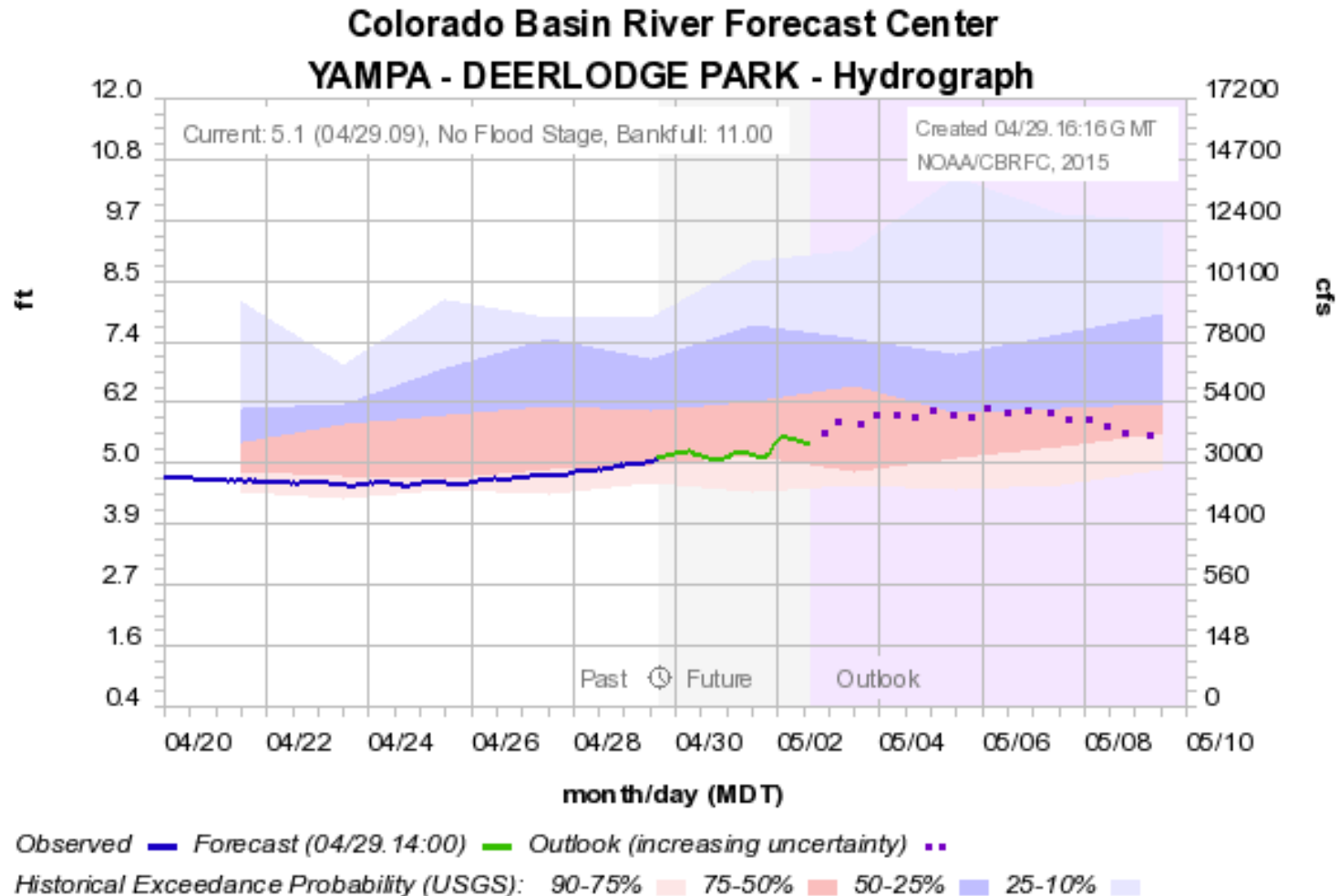
Precipitation



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID MJJ 2015
MADE 16 APR 2015



Yampa-10 day Streamflow Forecast

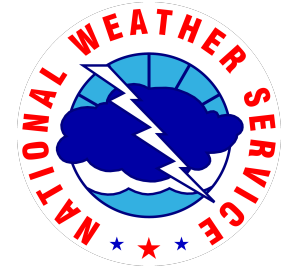


- Flows could get to ~5000 cfs late next week
- Uncertainty in temperature and precipitation forecasts

Questions??



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