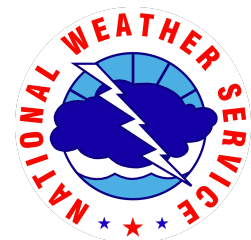


Green and Yampa Rivers: Current Conditions and Forecasts

March 23, 2016
Flaming Gorge Working Group Meeting

Ashley Nielson-Senior Hydrologist
Colorado Basin River Forecast Center
National Weather Service/NOAA



Today's Presentation

- Who is the Colorado Basin River Forecast Center?
- Weather Review (Fall +Winter)
- Current Conditions Impacting Forecasts
 - Soil Moisture (modeled)
 - Snow
- Forecasts
 - April-July Water Supply Volumes
 - Peak Flows
- Weather Outlooks

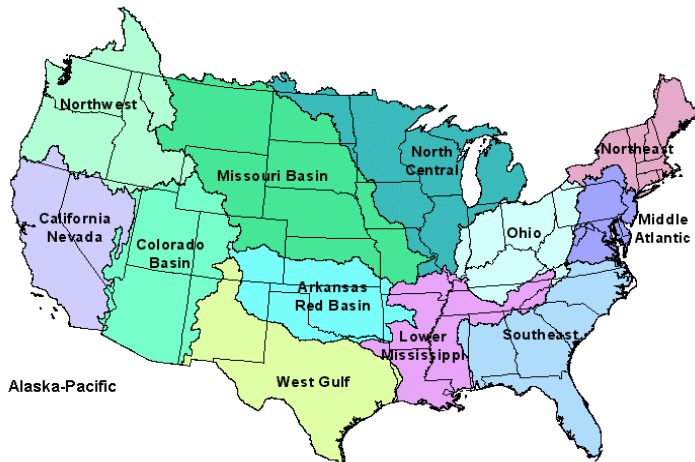
Who is the Colorado Basin River Forecast Center?



Mission: To understand and predict changes in the Earth's environment...to meet our Nation's economic, social and environmental needs



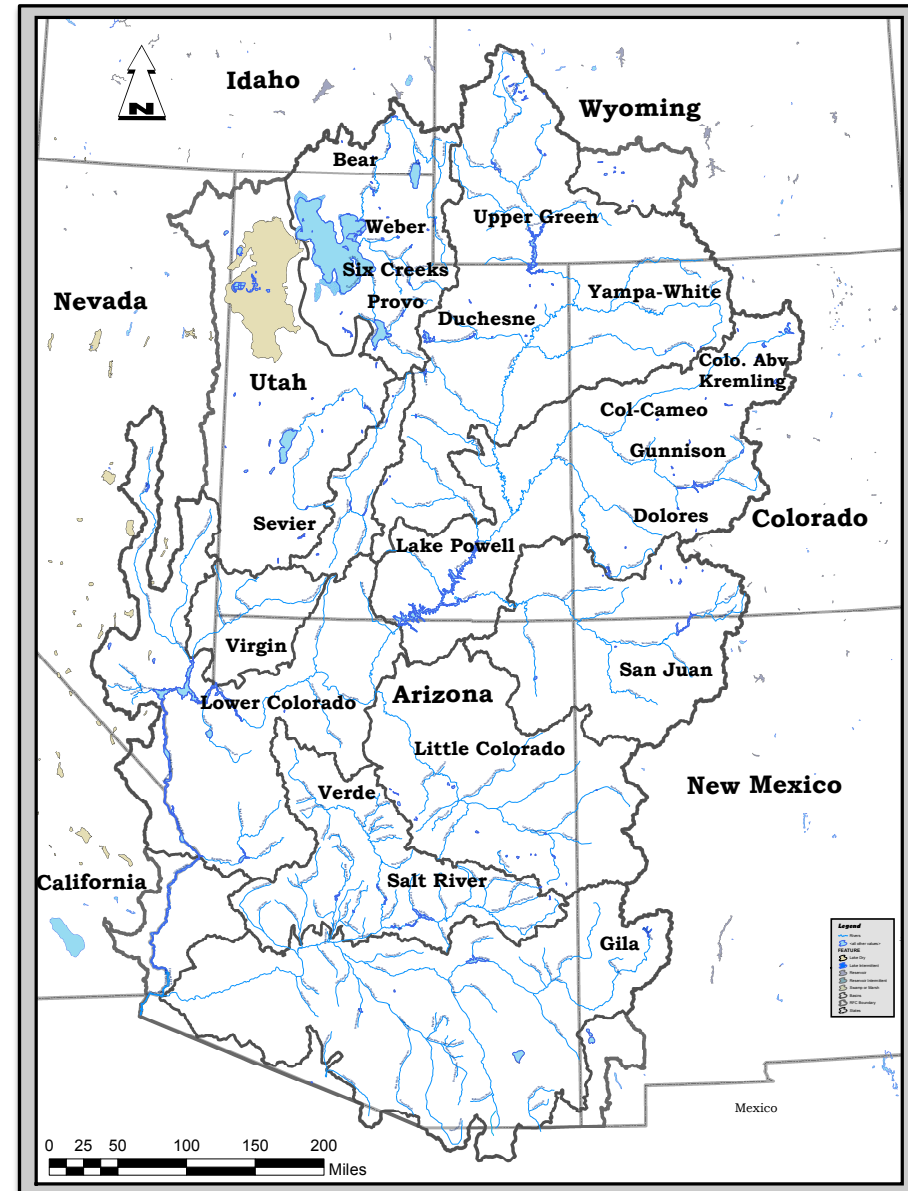
Mission: The NWS provides, weather, hydrologic, and climate forecasts and warnings....for the protection of life and property and the enhancement of the national economy



The NWS has 13 river forecast centers defined by major river basins across the country that produce timely and accurate water forecasts to support the NWS/NOAA missions

CBRFC: Who are we?

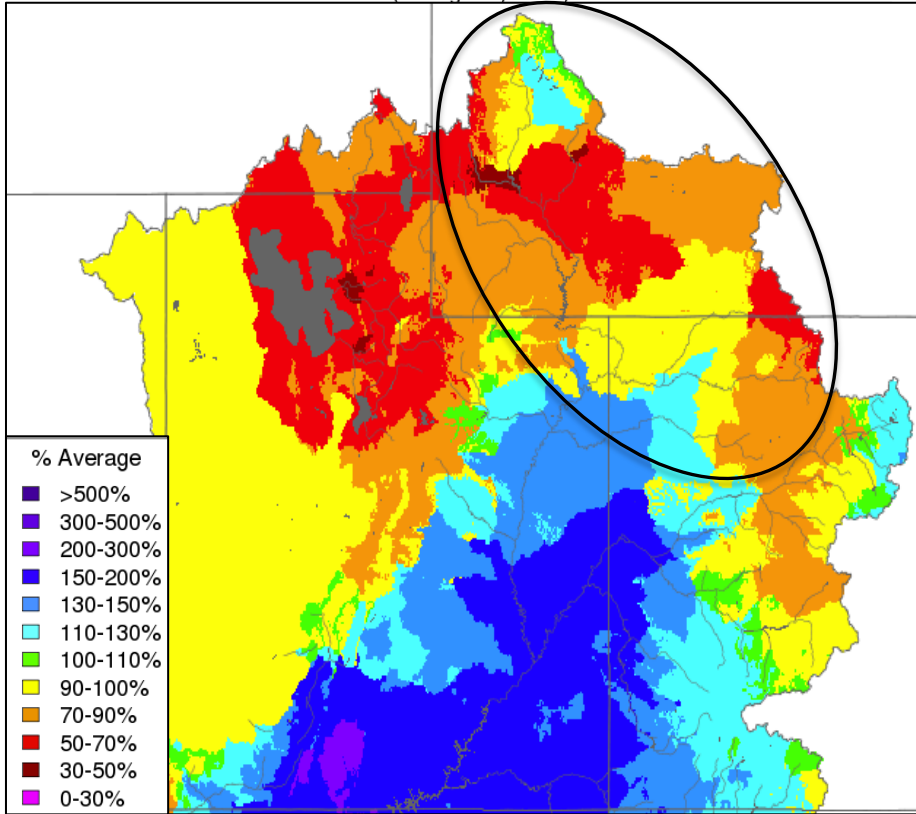
- One of 13 NWS River Forecast Centers
- Major Programs Include
 - Flood and routine river forecasts
 - Water Supply Forecasts
 - Flash Flood Support
- 14 person staff includes meteorologists, hydrologists, and IT
- Forecasts drive a broad range of important stakeholder decisions



Weather Review: Fall Precipitation/Temperatures

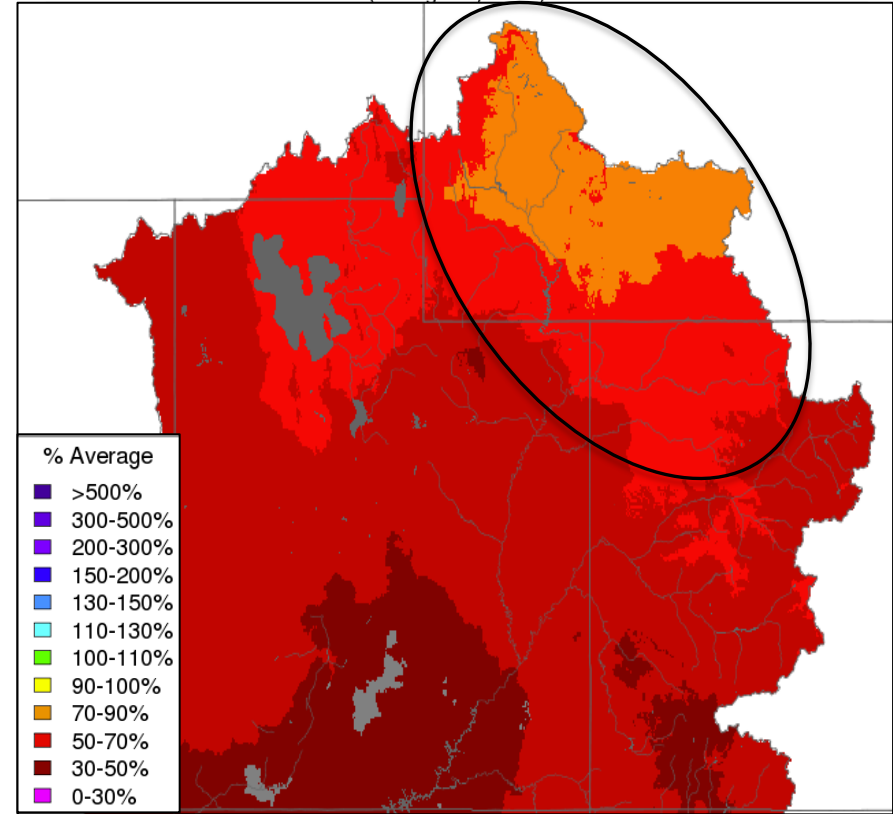
Water Year Precipitation, October 2014 - November 2015

(Averaged by Basin)



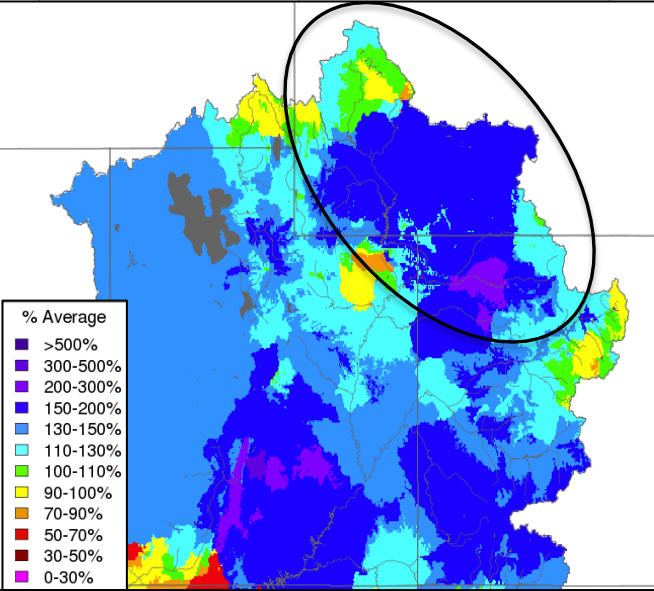
Max Temp - Monthly Deviation - October 2015

(Averaged by Basin)



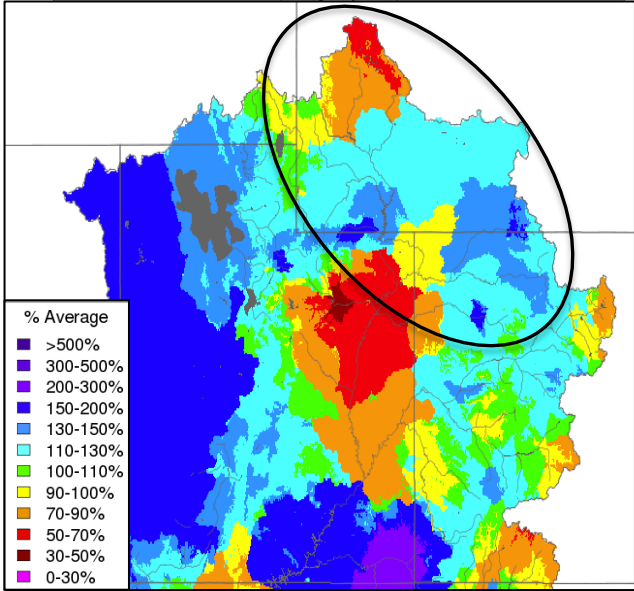
Weather Review: Winter Precipitation

Monthly Precipitation - December 2015
(Averaged by Basin)



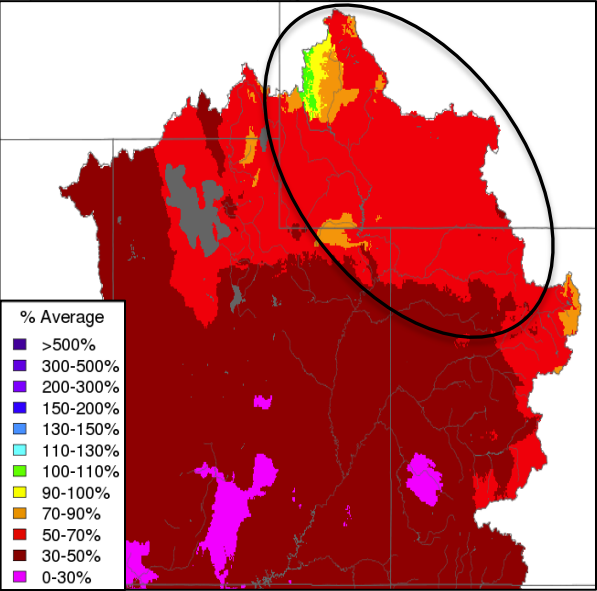
Above Flaming Gorge: 115%
Yampa River: 125%

Monthly Precipitation - January 2016
(Averaged by Basin)



Above Flaming Gorge: 93%
Yampa River: 125%

Monthly Precipitation - February 2016
(Averaged by Basin)

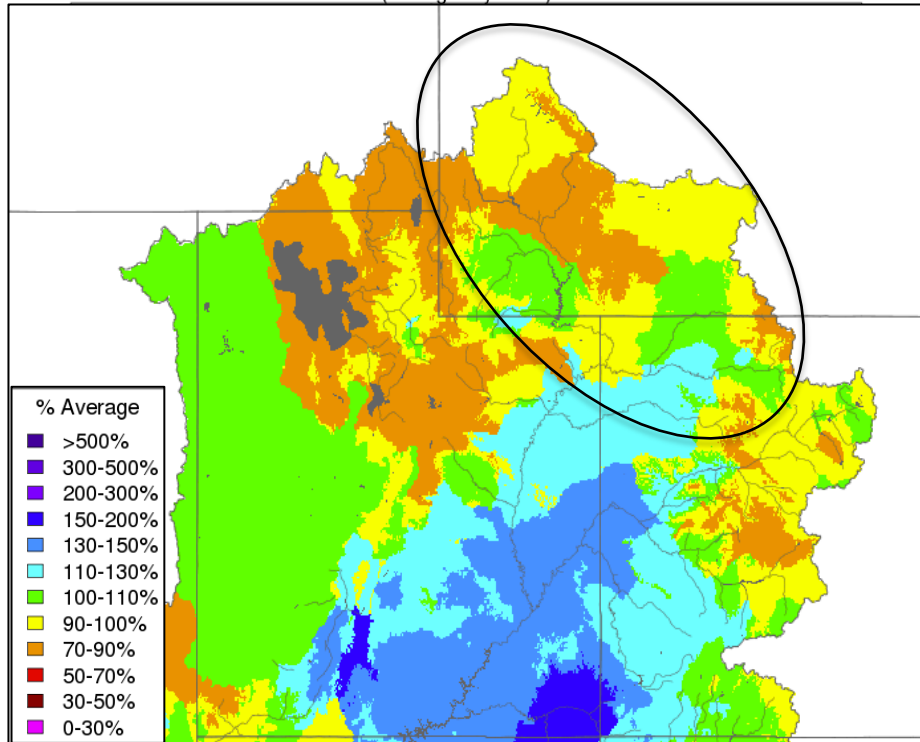


Above Flaming Gorge: 65%
Yampa River: 55%

Weather Review: Water Year and March Precipitation

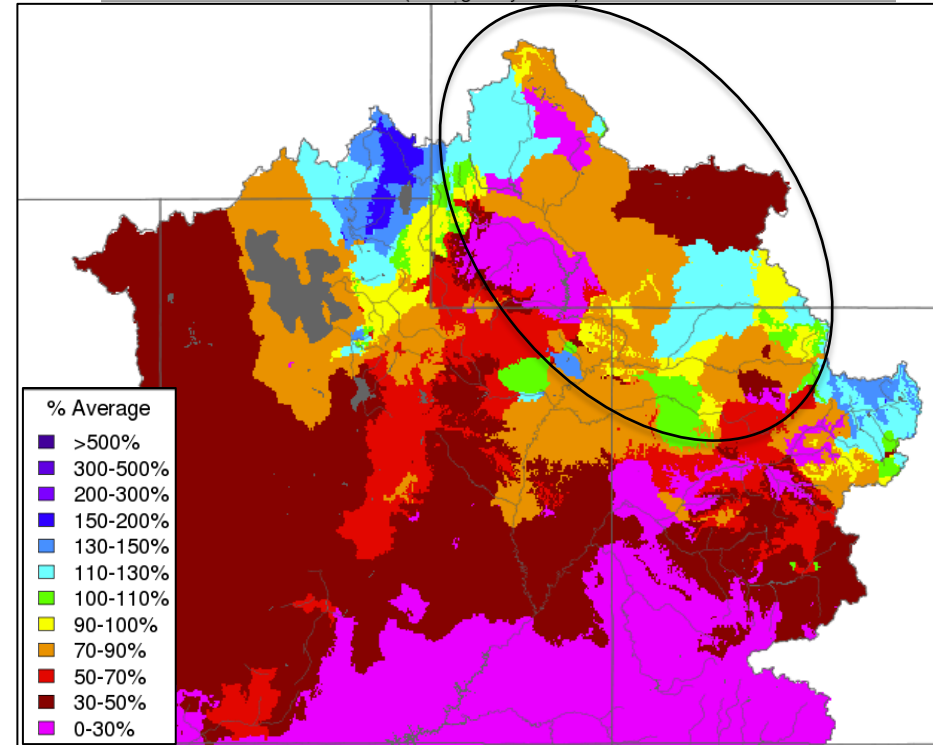
Water Year Precipitation, October 2015 - February 2016

(Averaged by Basin)



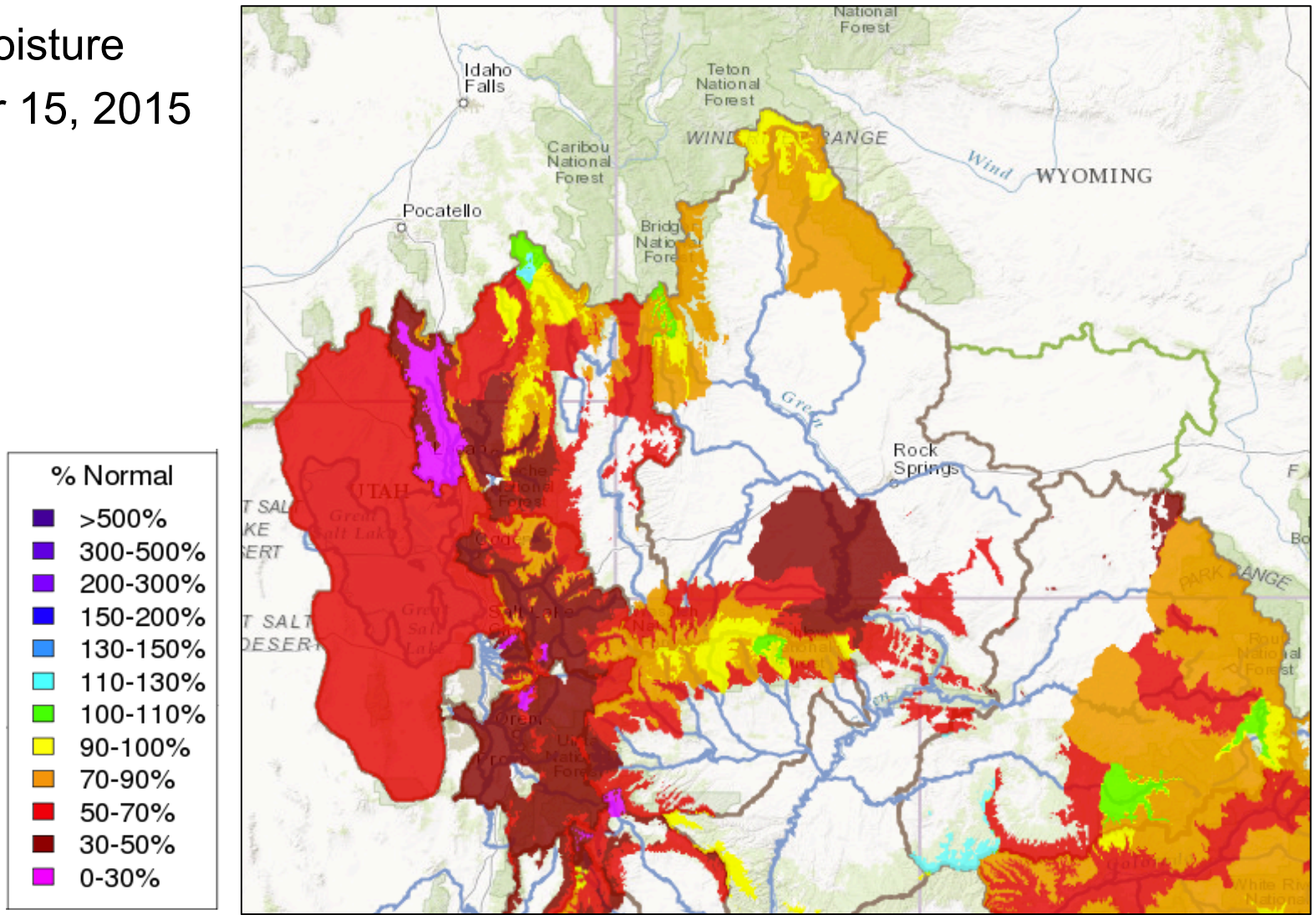
Month to Date Precipitation - March 23 2016

(Averaged by Basin)



Fall Soil Moisture

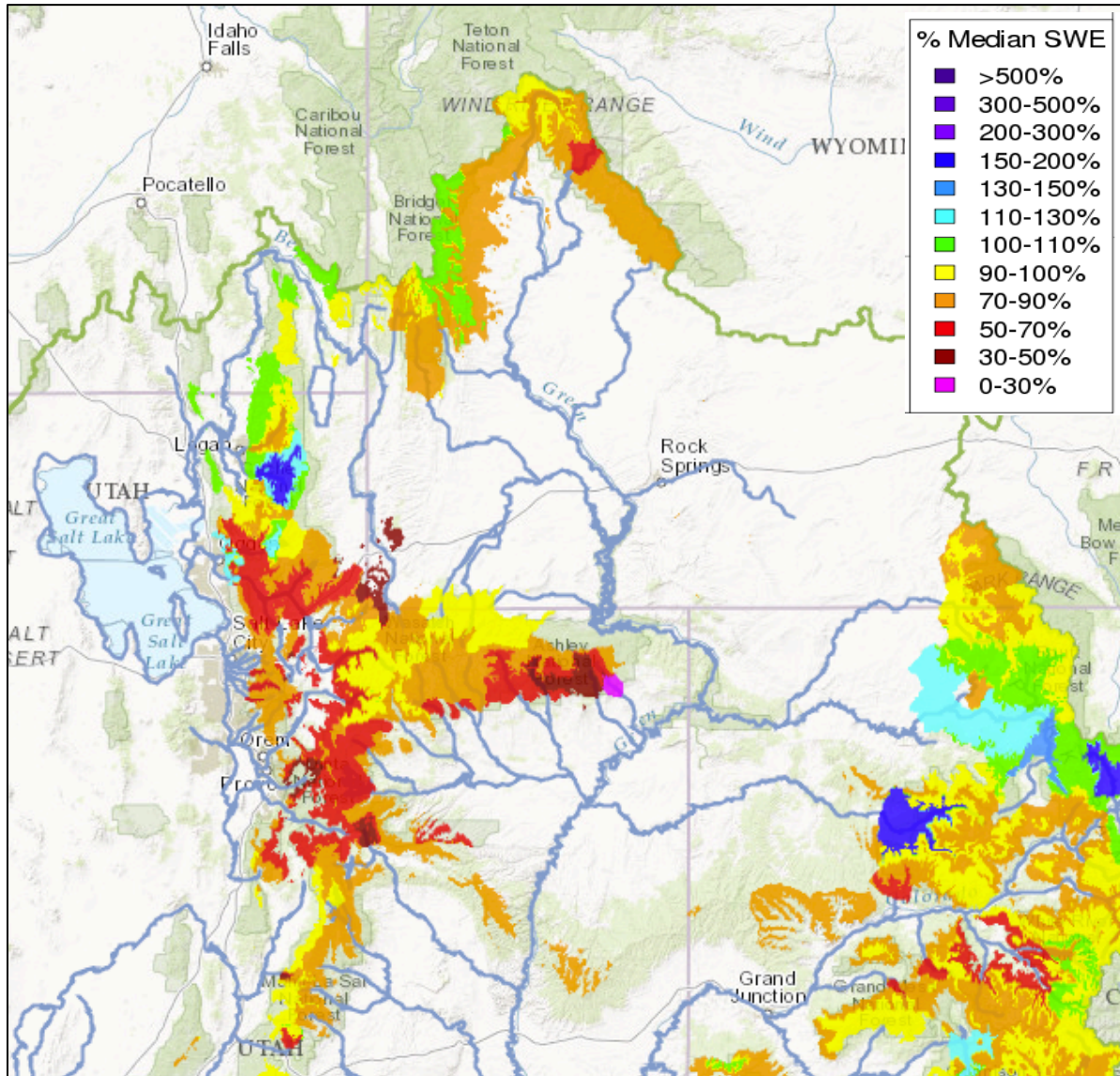
Soil Moisture
November 15, 2015



Soil Moisture representation from the CBRFC hydrologic model

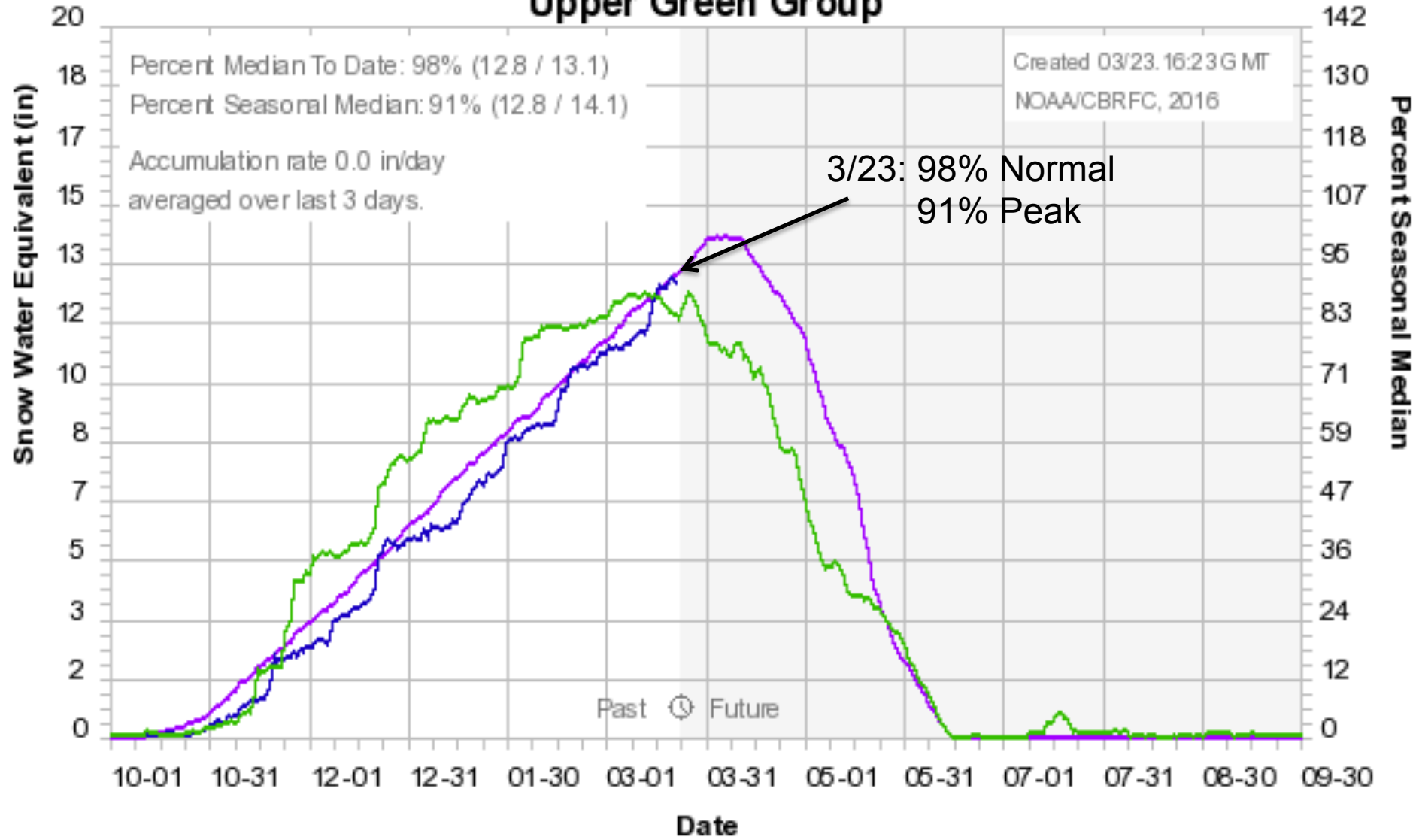
Snow (CBRFC Hydrologic Model)

March 22th 2016
Significant Runoff Areas



Snow (Upper Green SNOTELS)

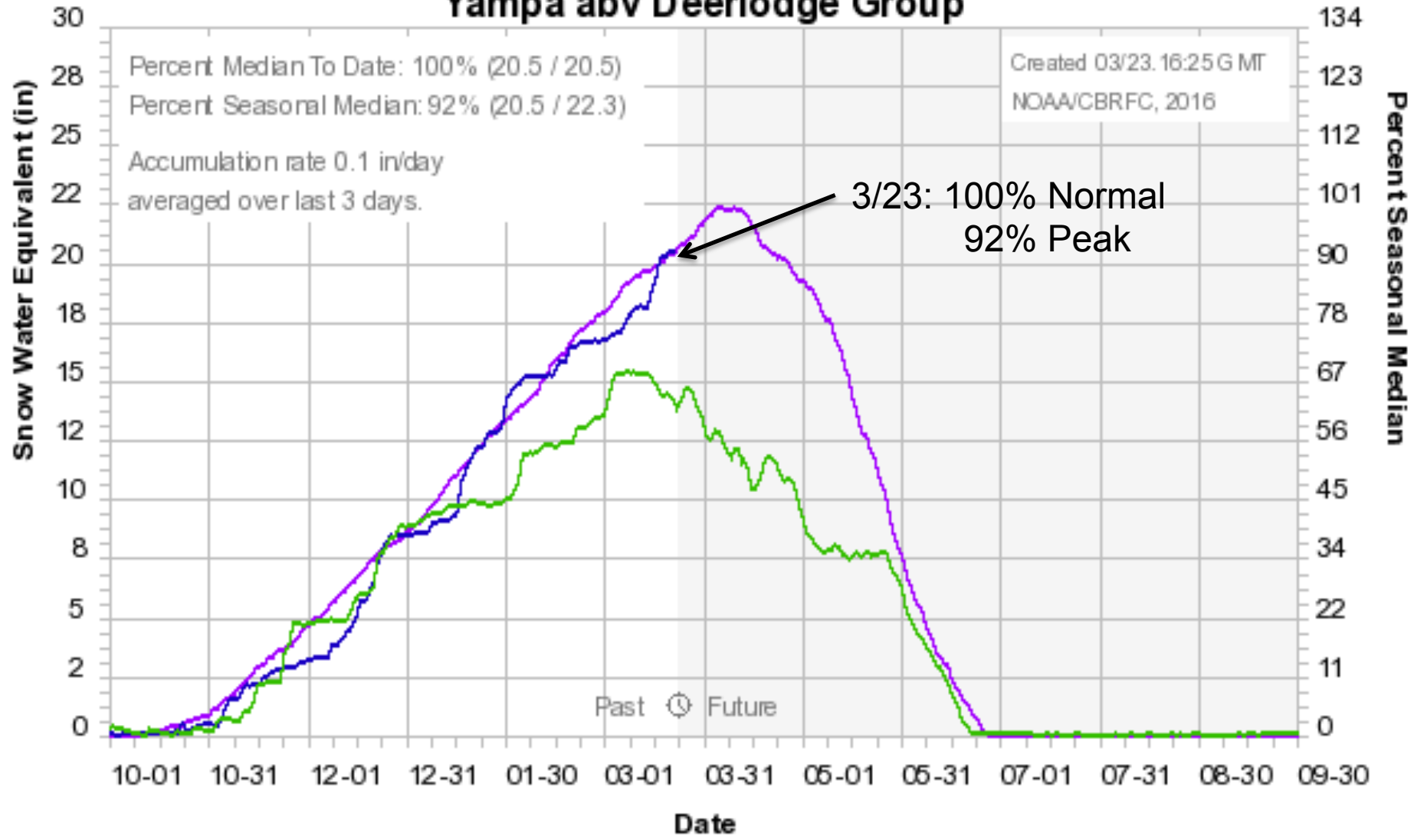
Colorado Basin River Forecast Center Upper Green Group



Median 1981-2010 2016 2015 2014

Snow (Yampa River SNOTELS)

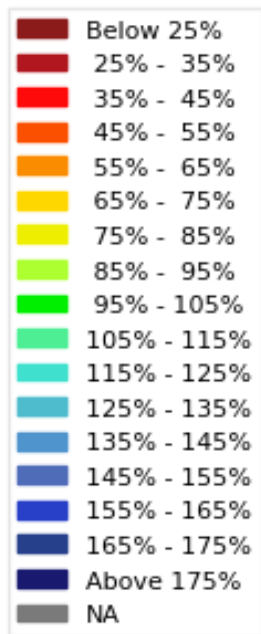
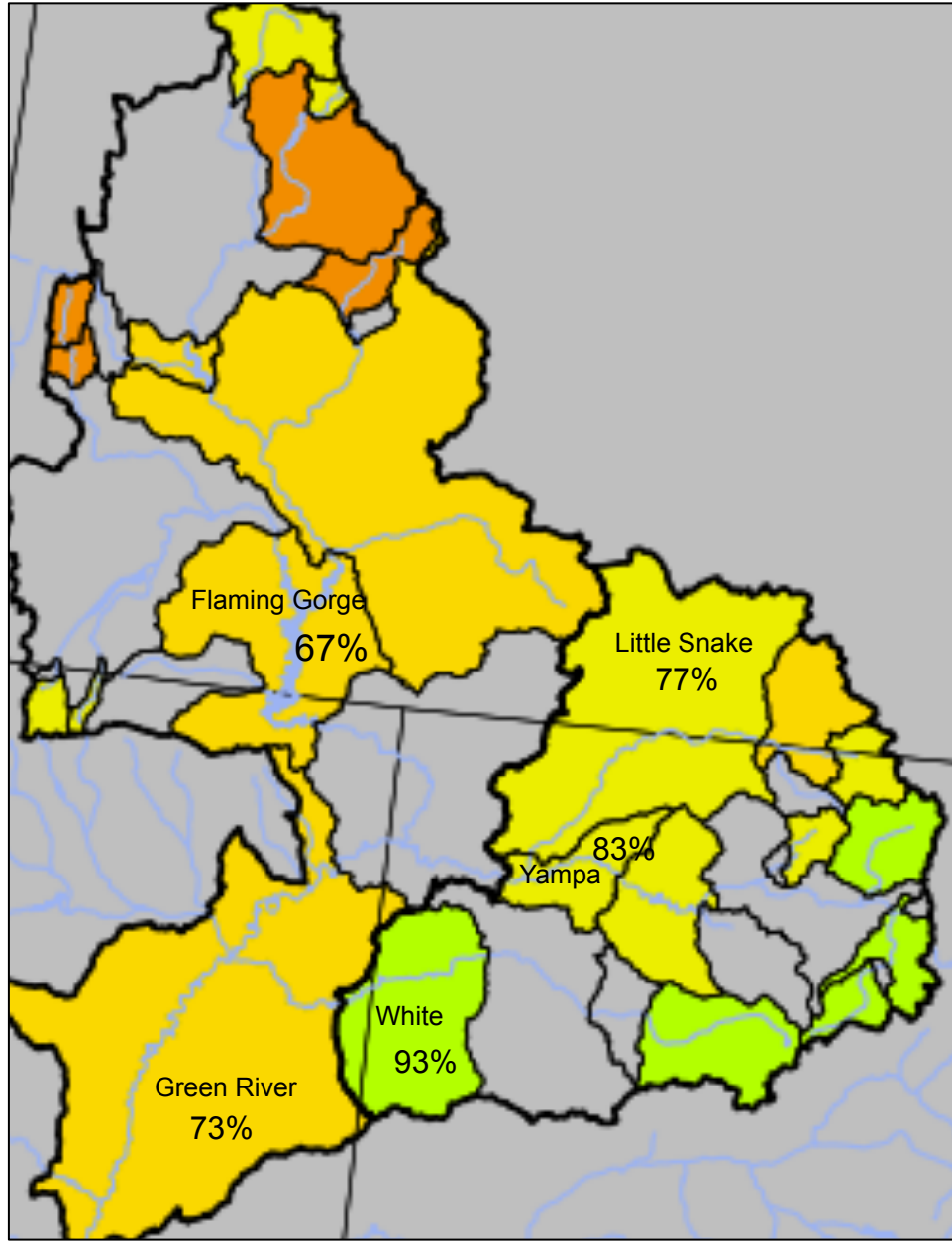
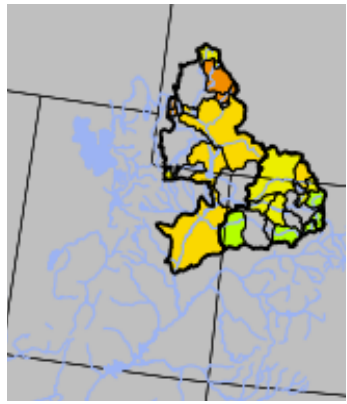
Colorado Basin River Forecast Center Yampa abv Deerlodge Group



Median 1981-2010 — 2016 — 2015 —

March 1st Water Supply Forecasts

Upper Green and Yampa River Basins
 April-July Forecast Streamflow Volumes
 (% of 1981-2010 average)

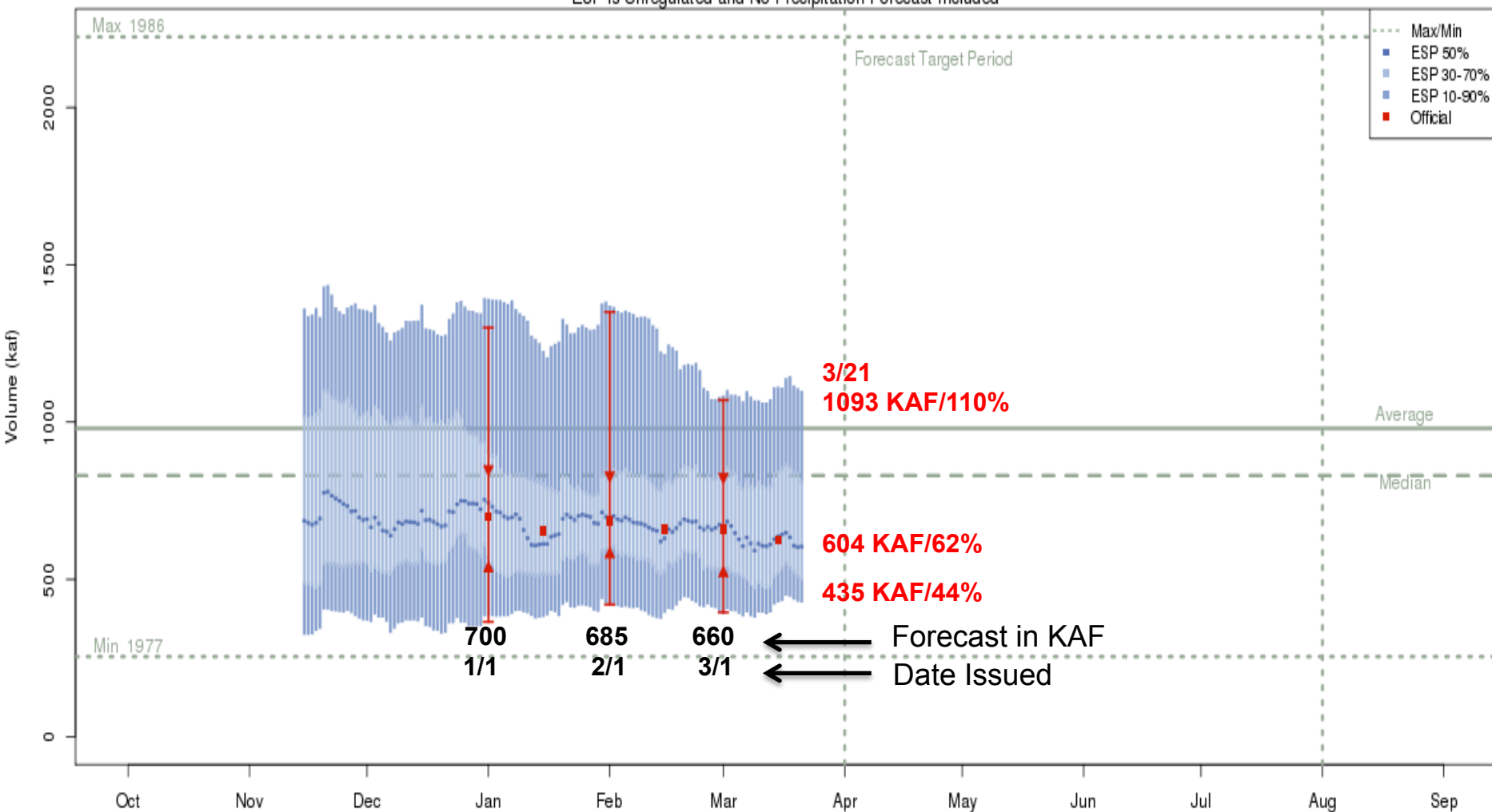


March 23 Forecasts:
 Flaming Gorge: 62%
 Yampa: 80%
 White: 91%

Forecast: Flaming Gorge Inflow

Seasonal Forecast Progression

Green - Flaming Gorge Res- Flaming Gorge Dam- At (GRNU1)
2016-03-15 Apr-Jul Official 50% Forecast: 625 kaf (64% of average)
ESP is Unregulated and No Precipitation Forecast Included

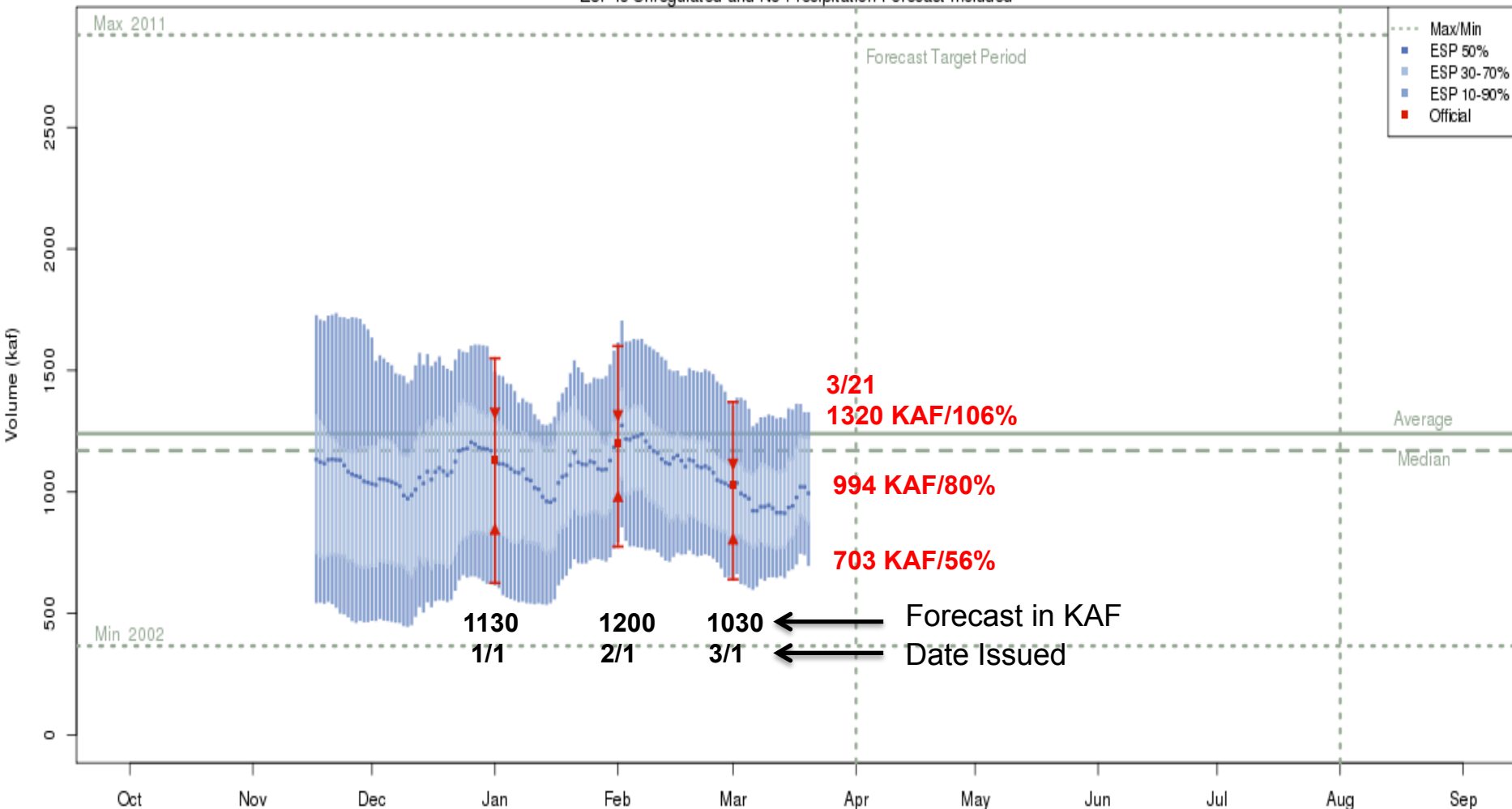


The latest (2016-03-21) 50% ESP forecast is 604 kaf.
Plot Created 2016-03-21 14:03:49, NOAA / NWS / CBRFC
Forecasts in the forecast target period include observed values.

Forecast: Yampa River-Deerlodge

Seasonal Forecast Progression

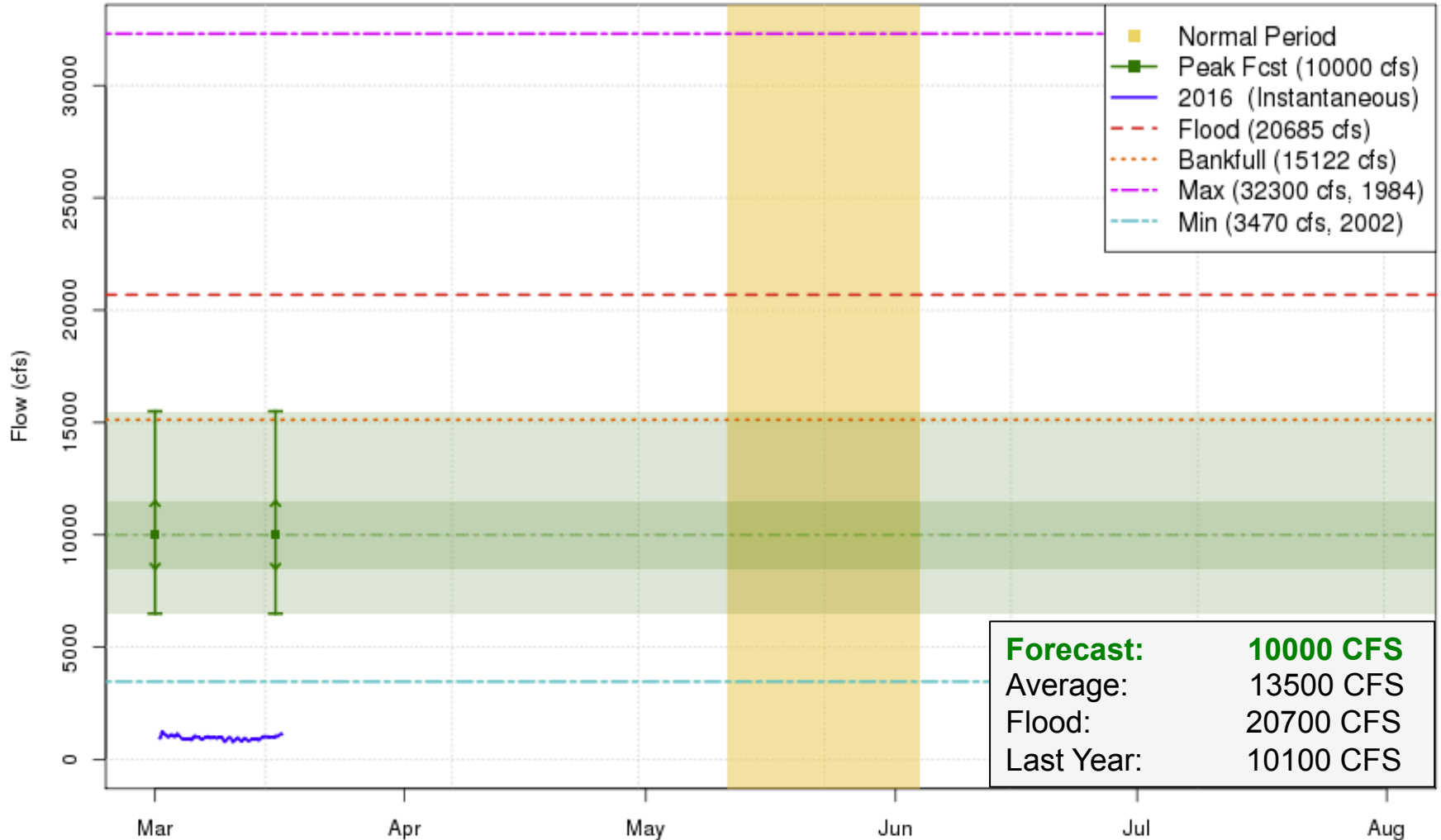
Yampa - Deerlodge Park (YDLC2)
 2016-03-01 Apr-Jul Official 50% Forecast: 1030 kaf (83% of average)
 ESP is Unregulated and No Precipitation Forecast Included



The latest (2016-03-20) 50% ESP forecast is 994 kaf.
 Plot Created 2016-03-21 13:13:52, NOAA / NWS / CBRFC
 Forecasts in the forecast target period include observed values.

Peak Flow Forecast: Yampa River-Deerlodge

2016 Mean Daily Peak Flow Forecast
Yampa - Deerlodge Park (YDLC2)

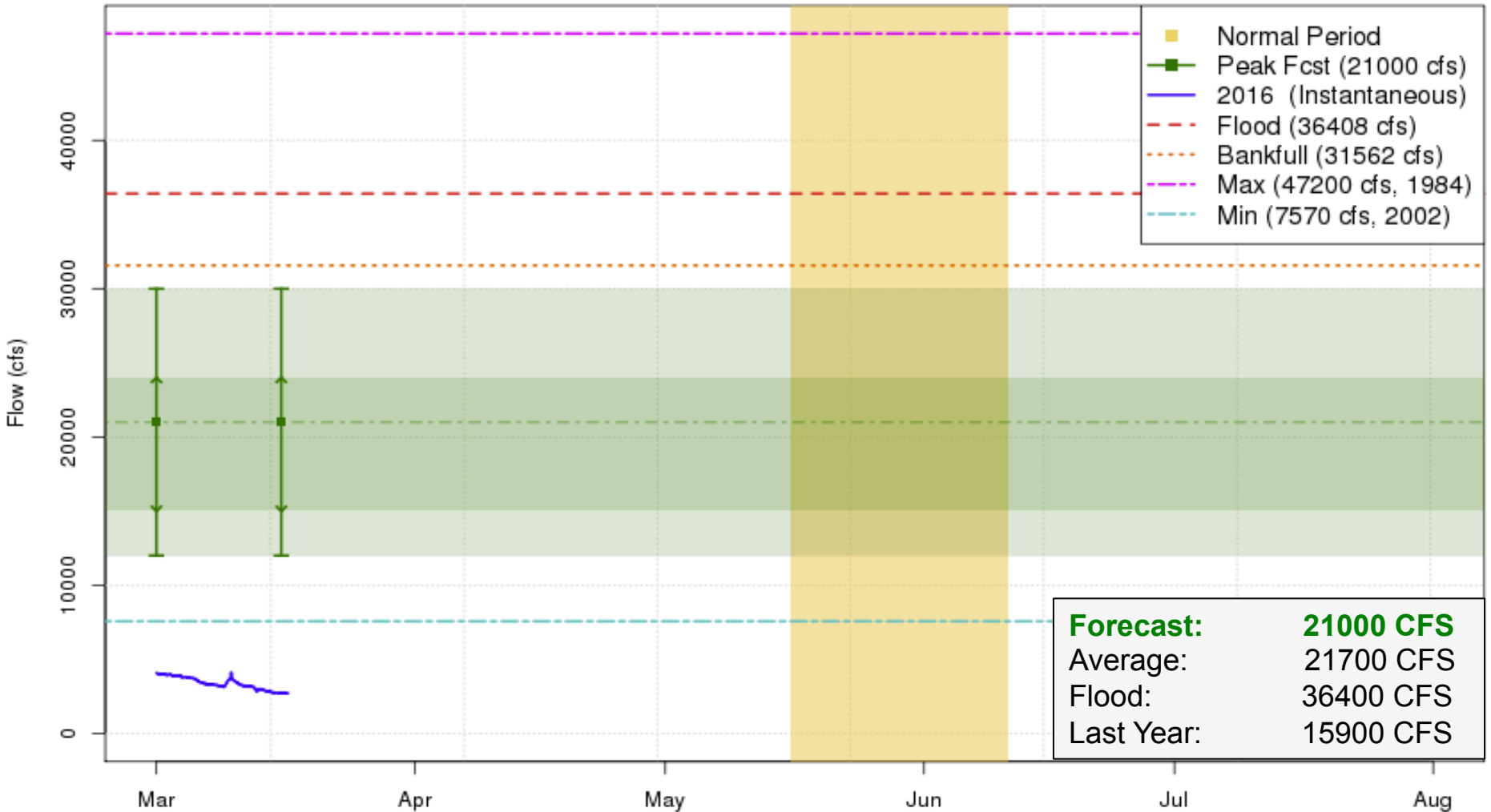


These graphics are updated approximately every two weeks between 3/1 and 5/1

Plot Created 2016-03-16 15:13:36
CBRFC / NWS / NOAA

Peak Flow Forecast: Green River- Green River, Utah

2016 Mean Daily Peak Flow Forecast
Green - Green River- Ut (GRVU1)

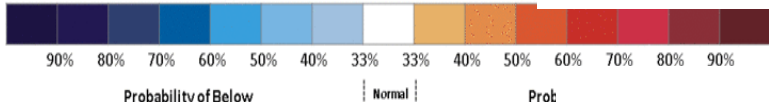
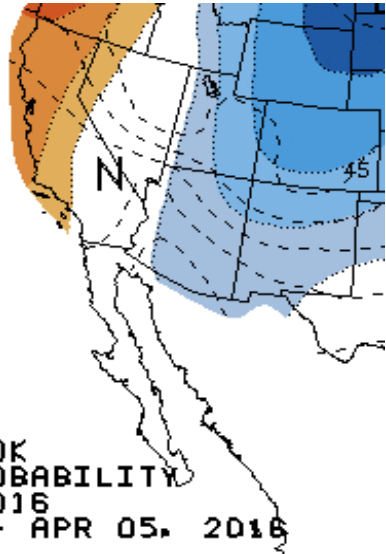
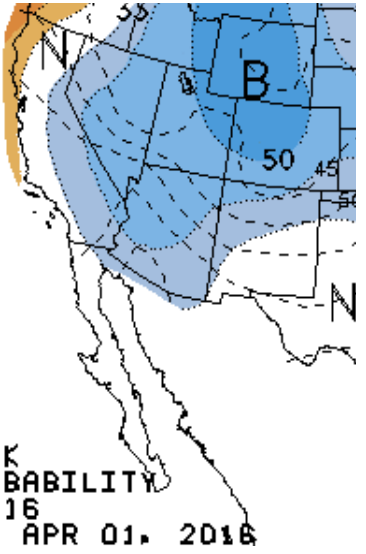


These graphics are updated approximately every two weeks between 3/1 and 5/1

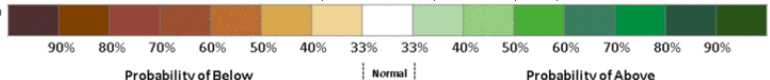
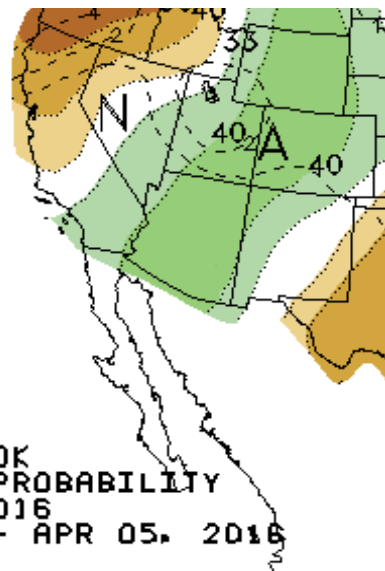
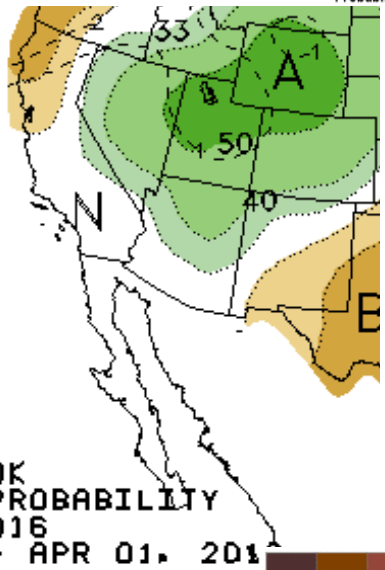
Plot Created 2016-03-16 15:12:46
CBRFC / NWS / NOAA

Weather Outlook: Short-Term

Temperature

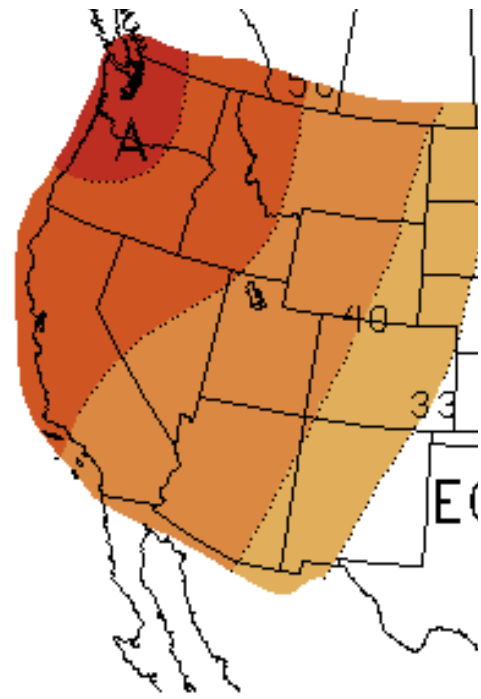


Precipitation

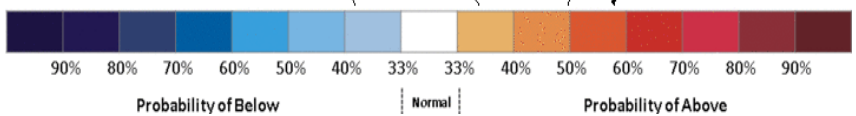


Weather Outlook: April

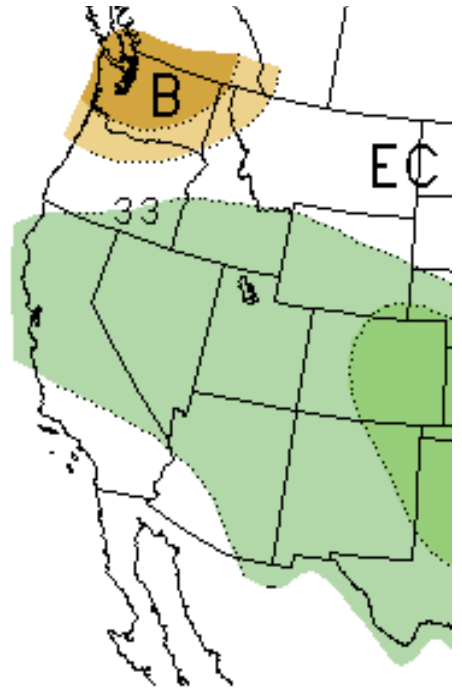
Temperature



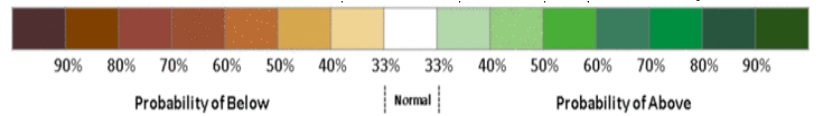
ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID APR 2016
MADE 17 MAR 2016



Precipitation



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID APR 2016
MADE 17 MAR 2016



Contact Us!

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 - michelle.stokes@noaa.gov
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COLORADO BASIN RIVER FORECAST CENTER
NATIONAL WEATHER SERVICE / NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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News Colorado River Basin Water Supply Briefing - April 7th 11 am MDT - Register here: [Read More...](#)
Great Basin Basin Water Supply Briefing - April 7th 1 pm MDT - Register here: [Read More...](#)

Conditions Map Help

River Conditions
Data Updated: 03/21/2022 Help

- Show [Hide Other Types](#)
- Data
- Forecast
- Reservoir Inflow
- Reservoir Outflow
- Official Flood
- Active
- Not Available
- Normal
- Significant Rise
- Near Bankfull
- Above Bankfull
- Above Flood Stage
- Outlook (> 3 days)
- Pop-up Alerts

Snow Conditions

Water Supply Forecasts

Peak Flood Probability

Reservoir Conditions

Daily Precipitation

Monthly Precipitation

Soil Moisture

Map Options

Search Points

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Questions?

