

April 2015
Navajo Unit Operations Meeting

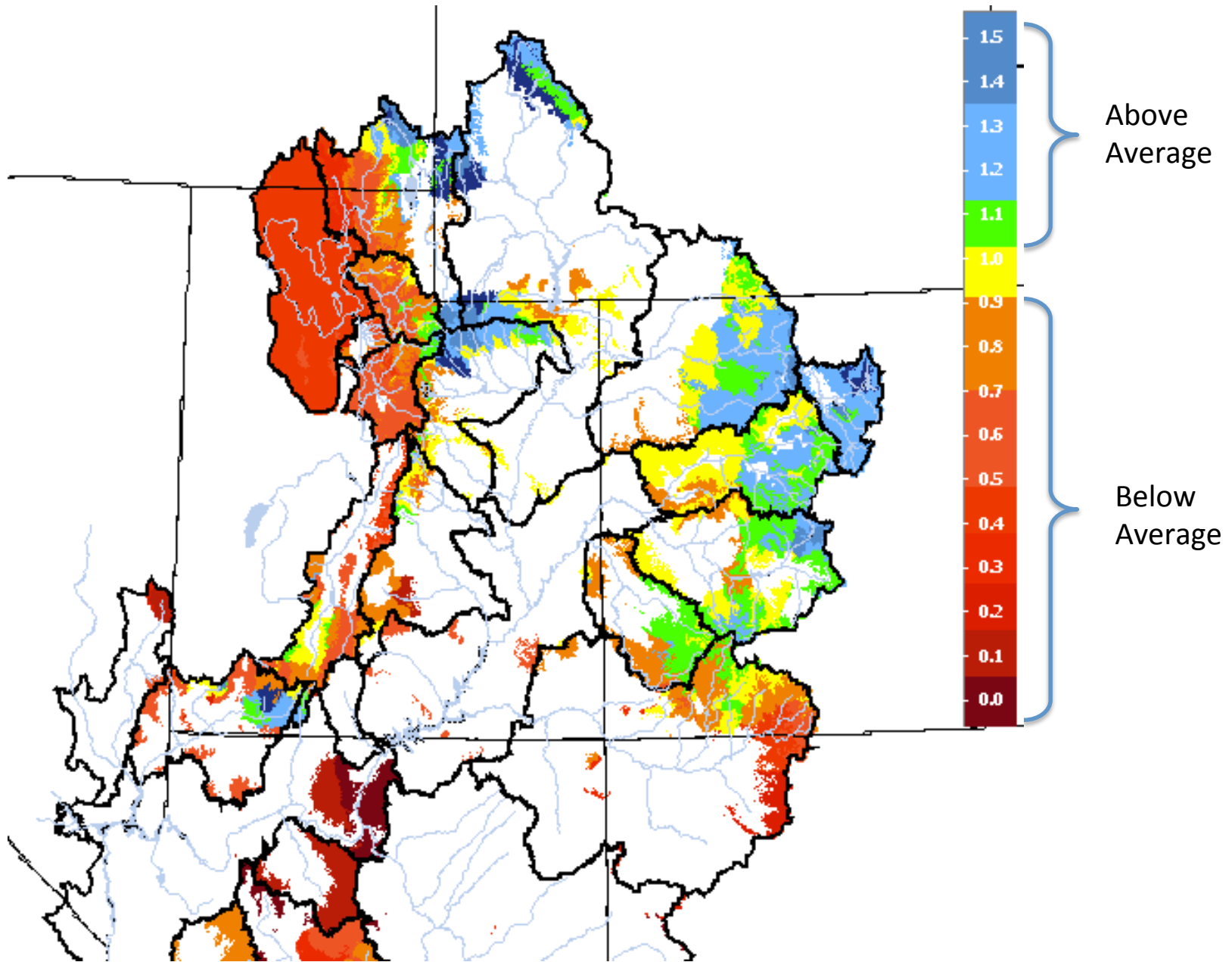
Runoff Forecast Discussion

Greg Smith

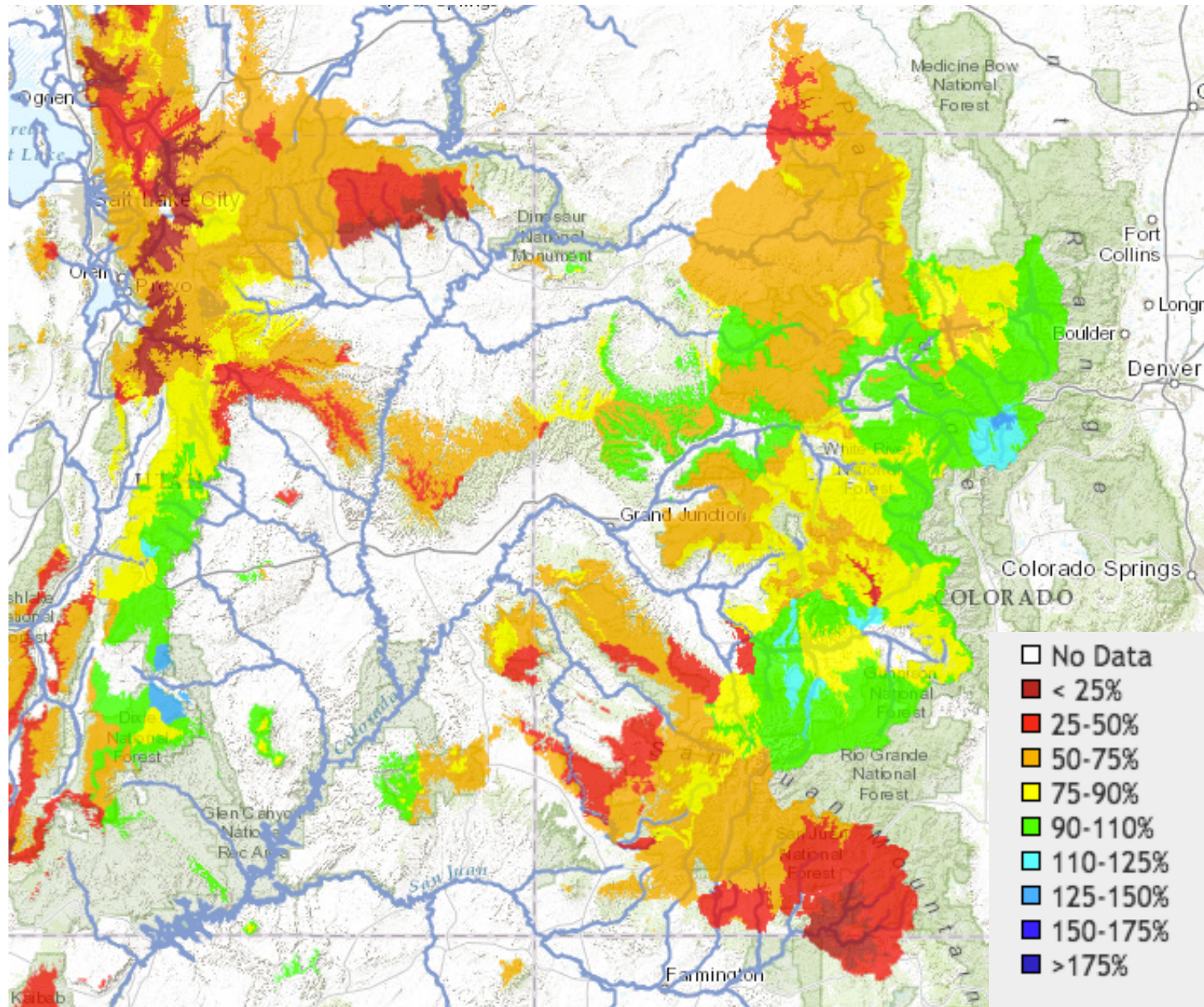
Senior Hydrologist

Colorado Basin River Forecast Center

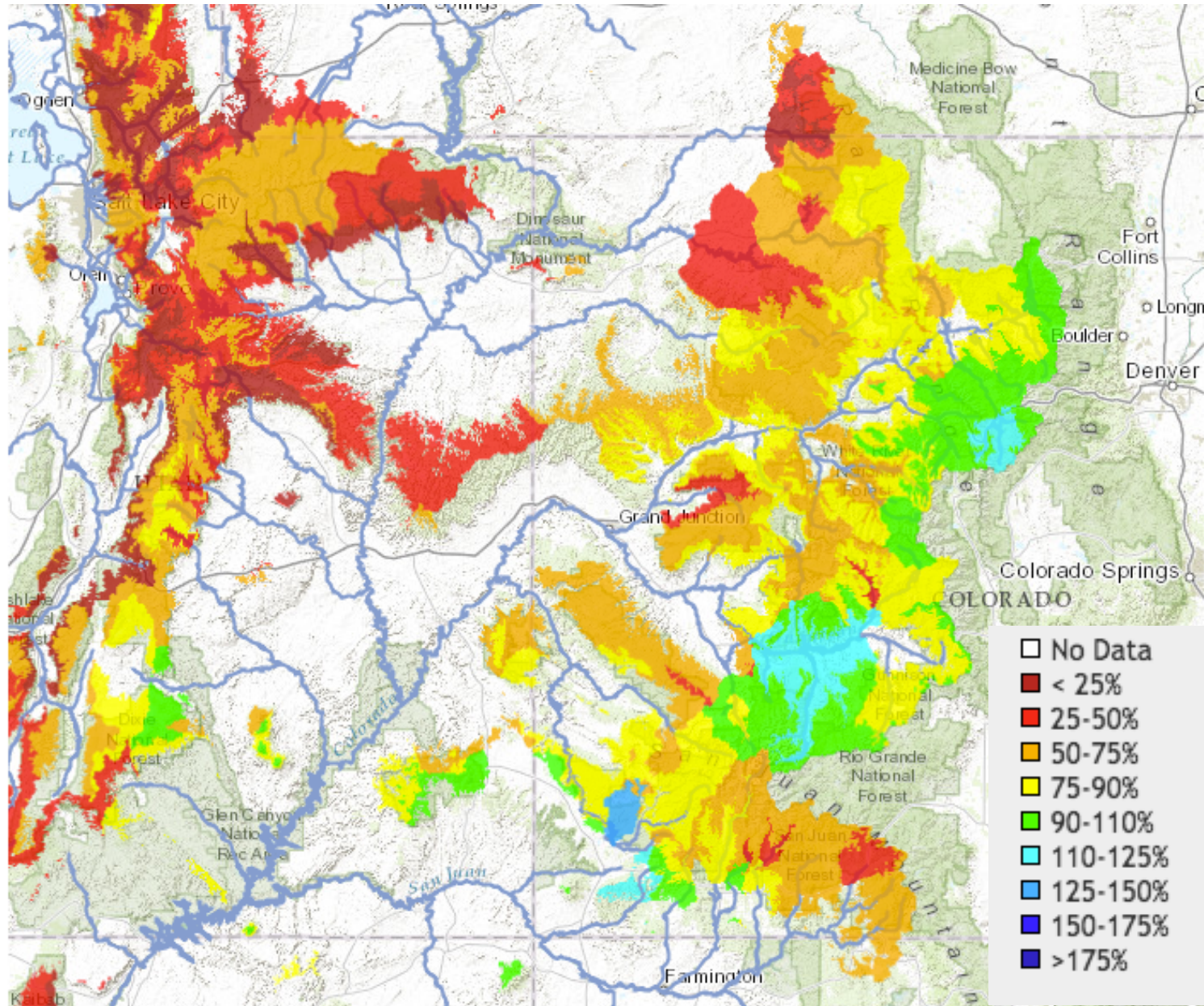
Model Soil Moisture – Entering the Winter Season



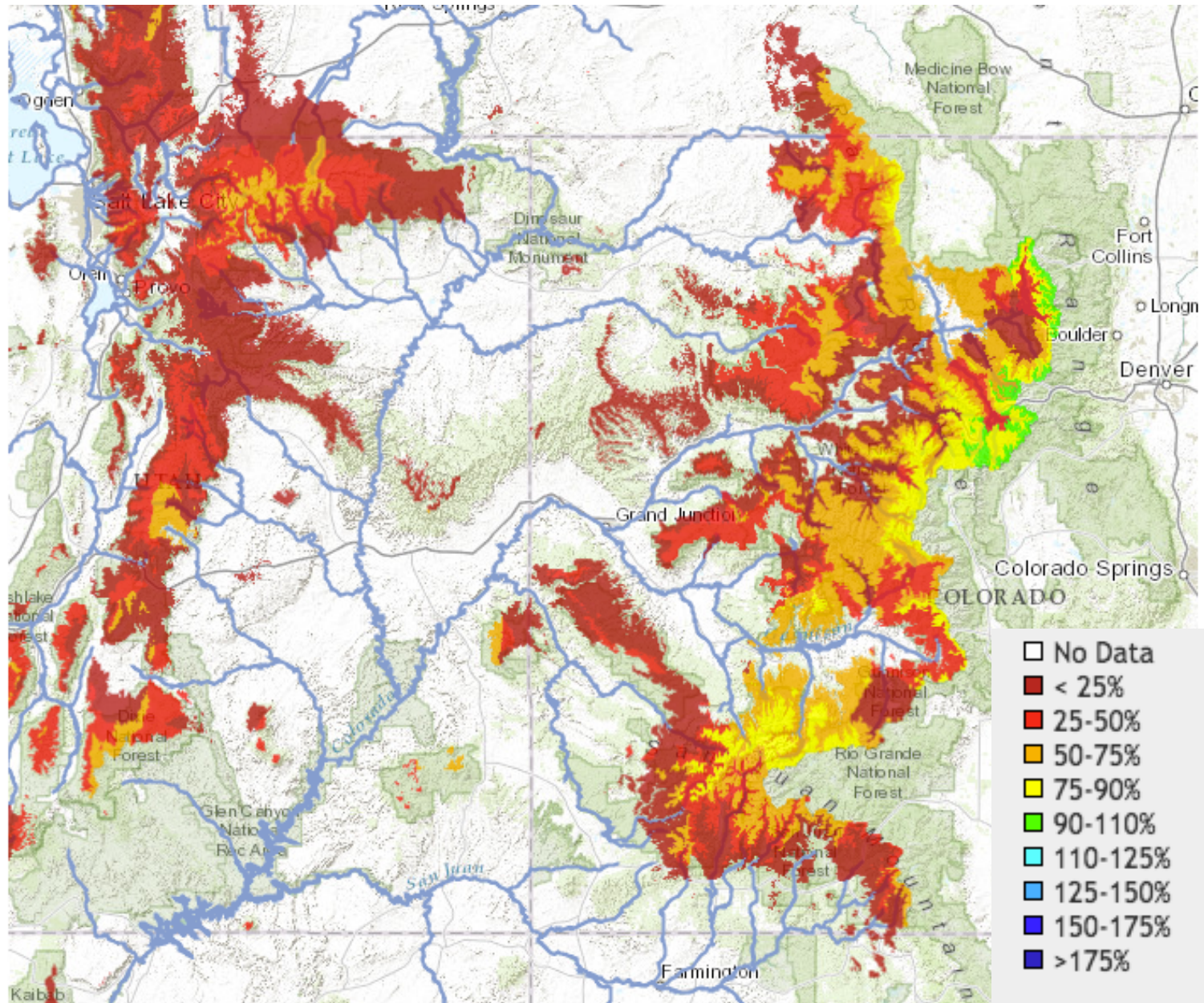
SNOW (as a % of average) – In the CBRFC Forecast Model on 2-1-2015



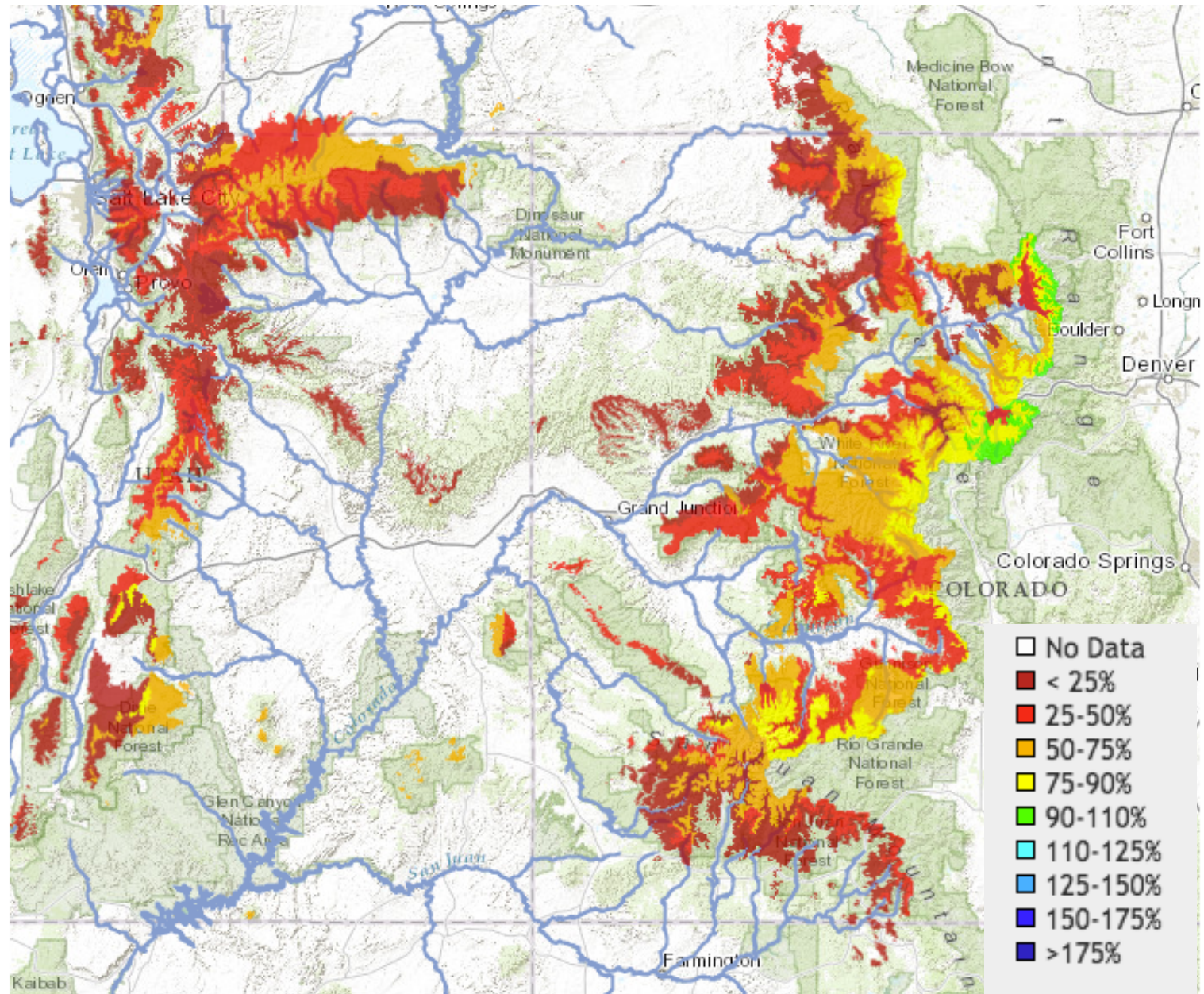
SNOW (as a % of average) – In the CBRFC Forecast Model on 3-1-2015



SNOW (as a % of average) – In the CBRFC Forecast Model on 4-1-2015

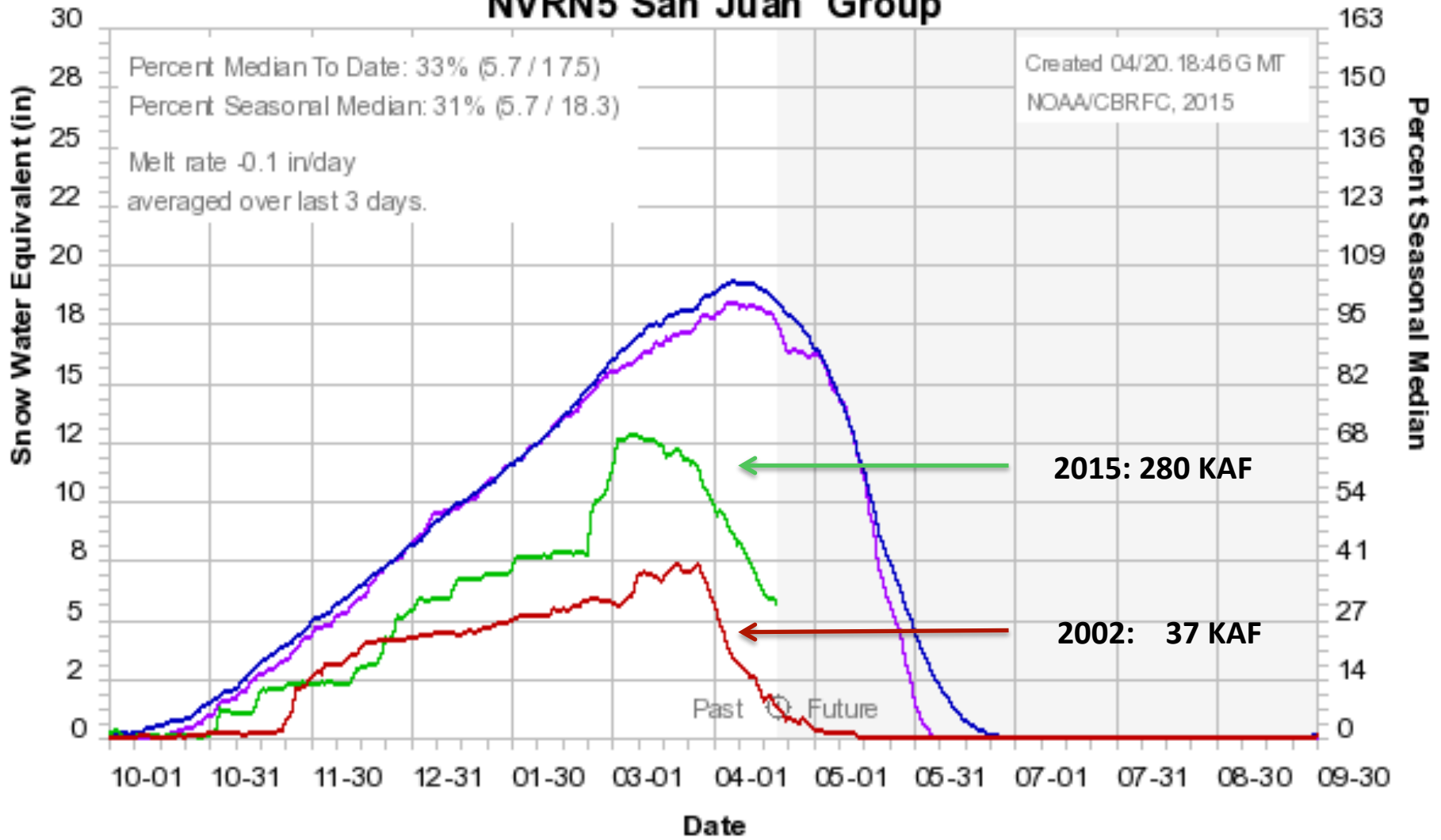


SNOW (as a % of average) – In the CBRFC Forecast Model on 4-19-2015



SNOTEL GROUP COMPARISON: 2015 with **Lowest** Snow Years

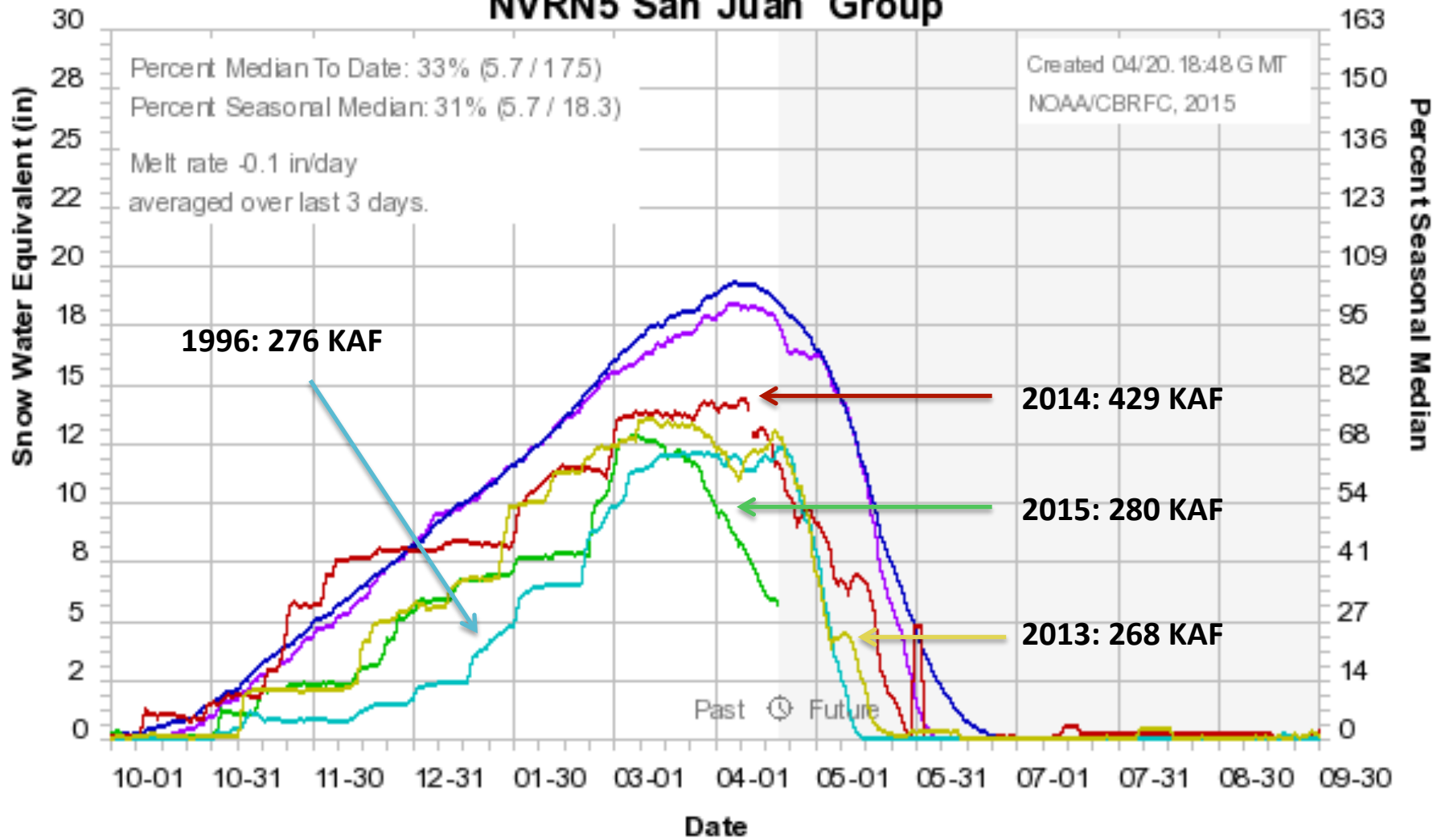
Colorado Basin River Forecast Center
NVRN5 San Juan Group



Median 1981-2010 Average 1981-2010 2015 2002 (Red line)

SNOTEL GROUP COMPARISON: 2015 with *Similar Patterned* Snow Years

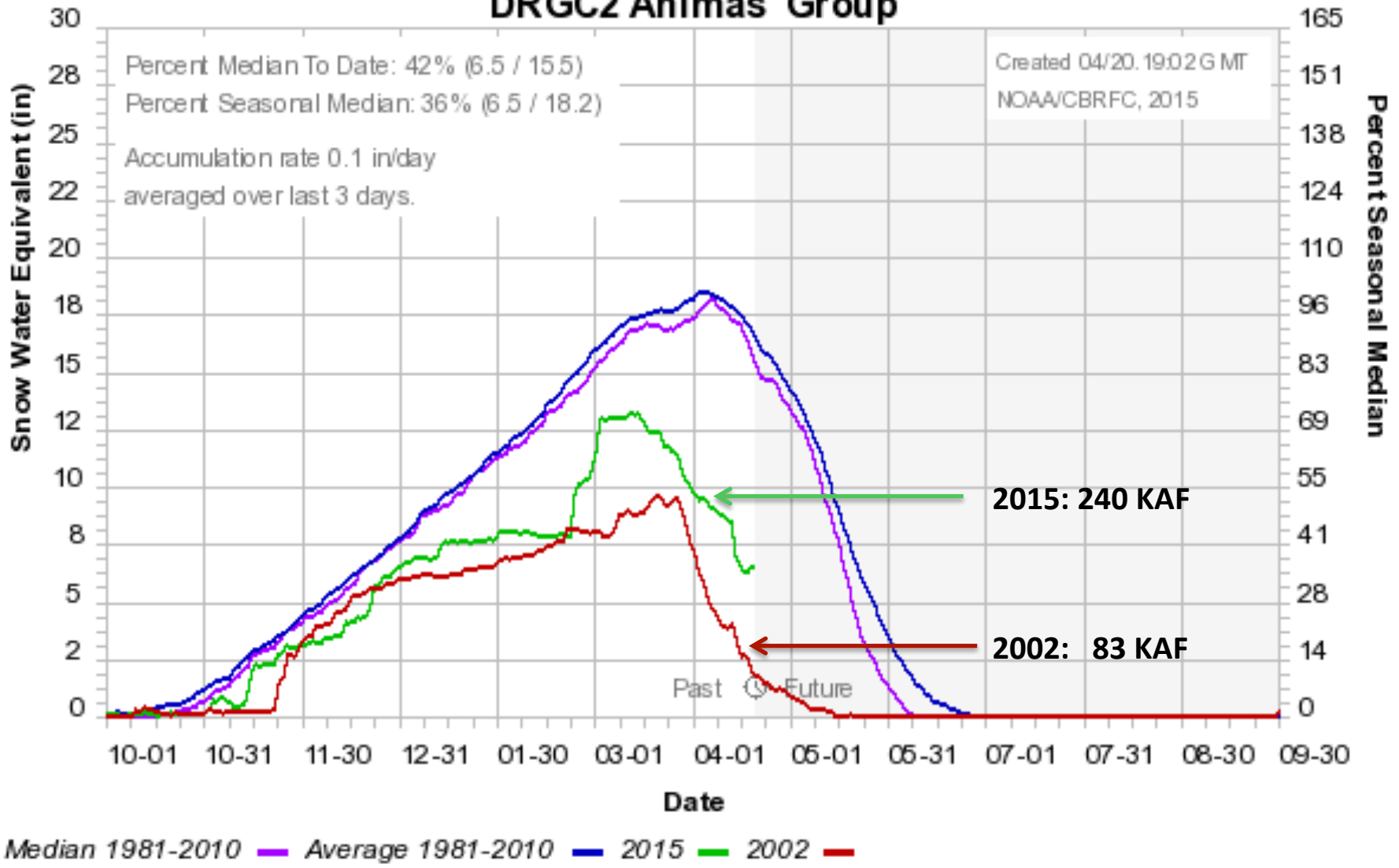
Colorado Basin River Forecast Center
NVRN5 San Juan Group



Median 1981-2010 Average 1981-2010 2015 2014 1996 2013 2015

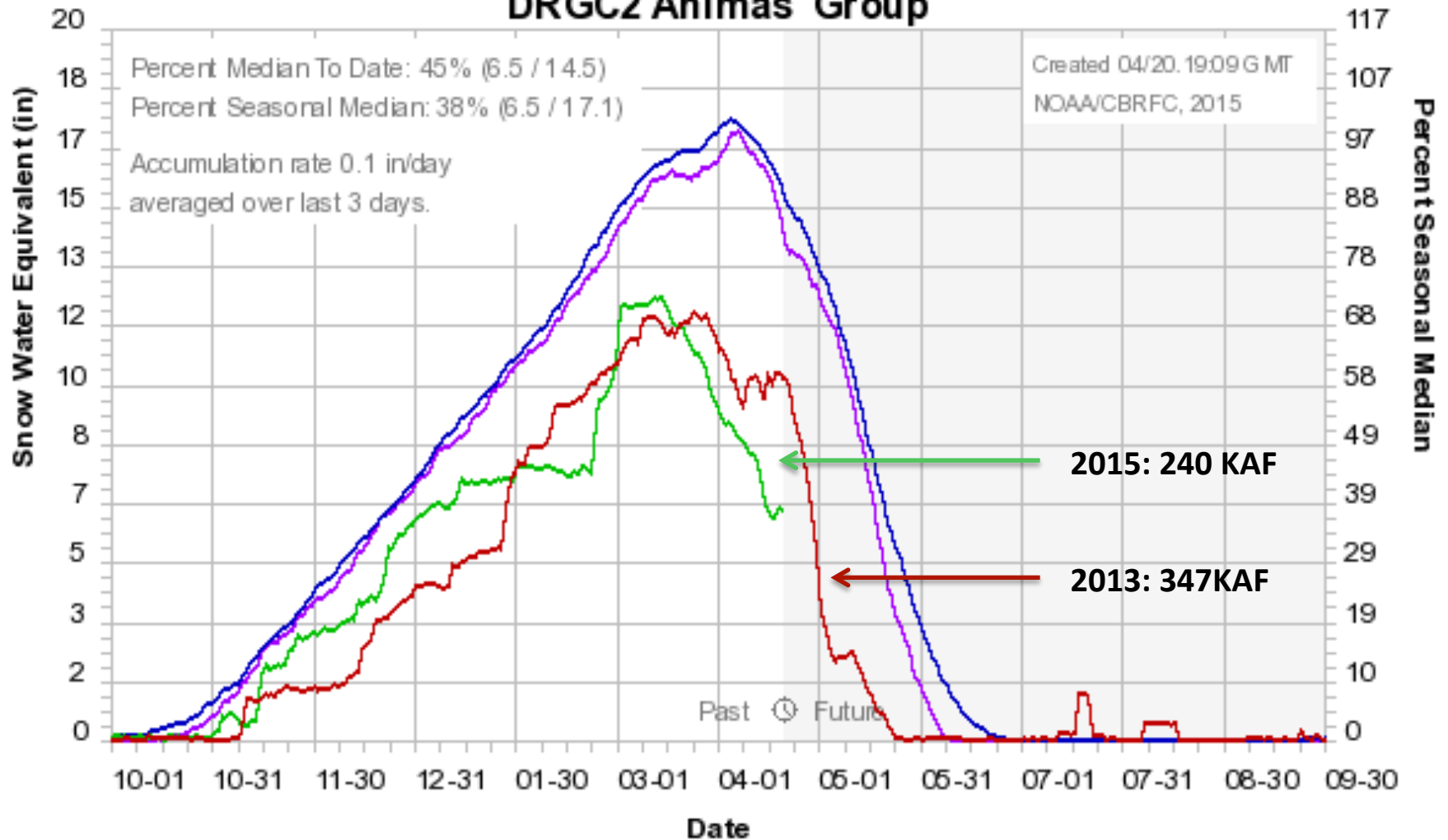
SNOTEL GROUP COMPARISON: 2015 with **Lowest** Snow Years

**Colorado Basin River Forecast Center
DRGC2 Animas Group**



SNOTEL GROUP COMPARISON: 2015 with *Similar Patterned* Snow Years

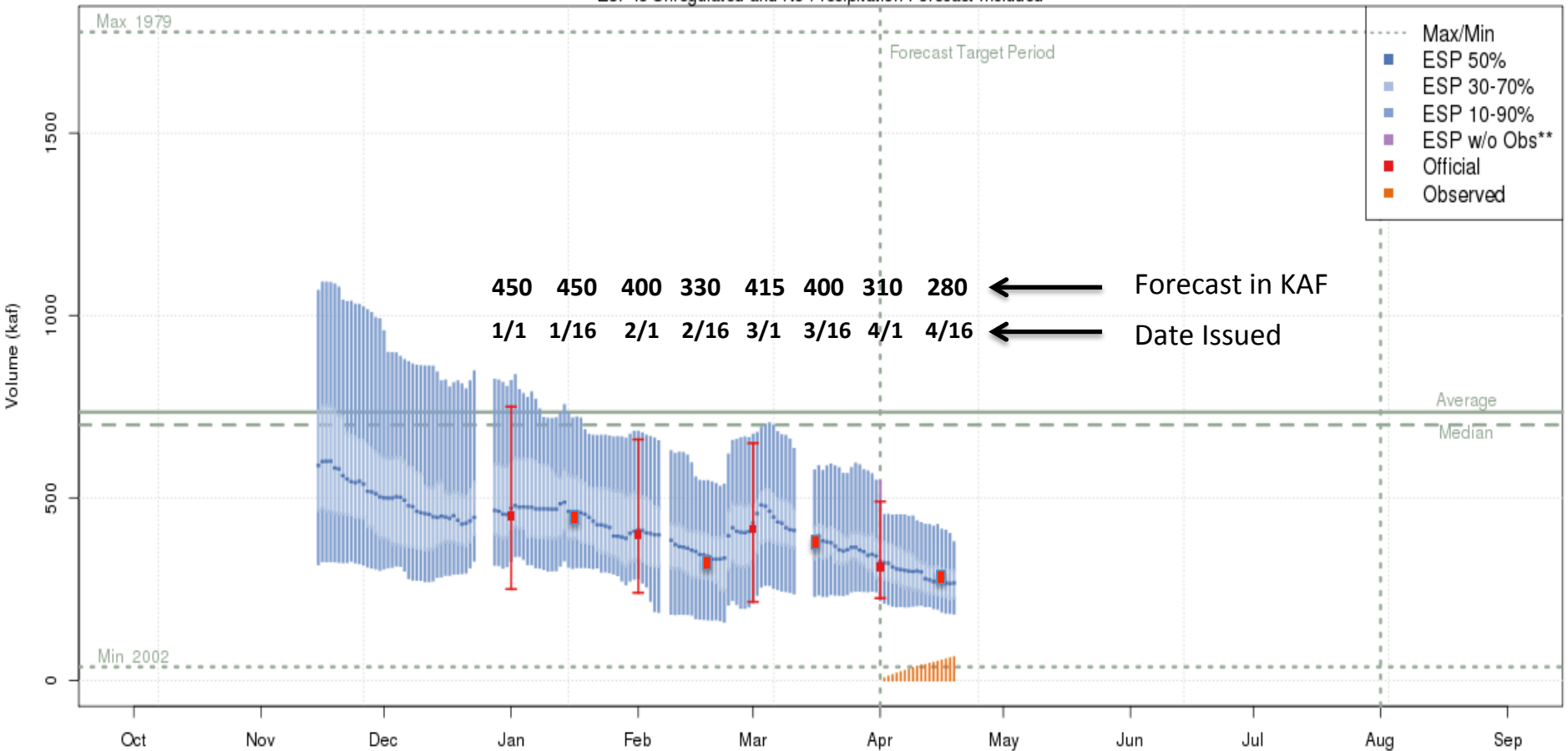
Colorado Basin River Forecast Center
DRGC2 Animas Group



Median 1981-2010 Average 1981-2010 2015 2013 2013

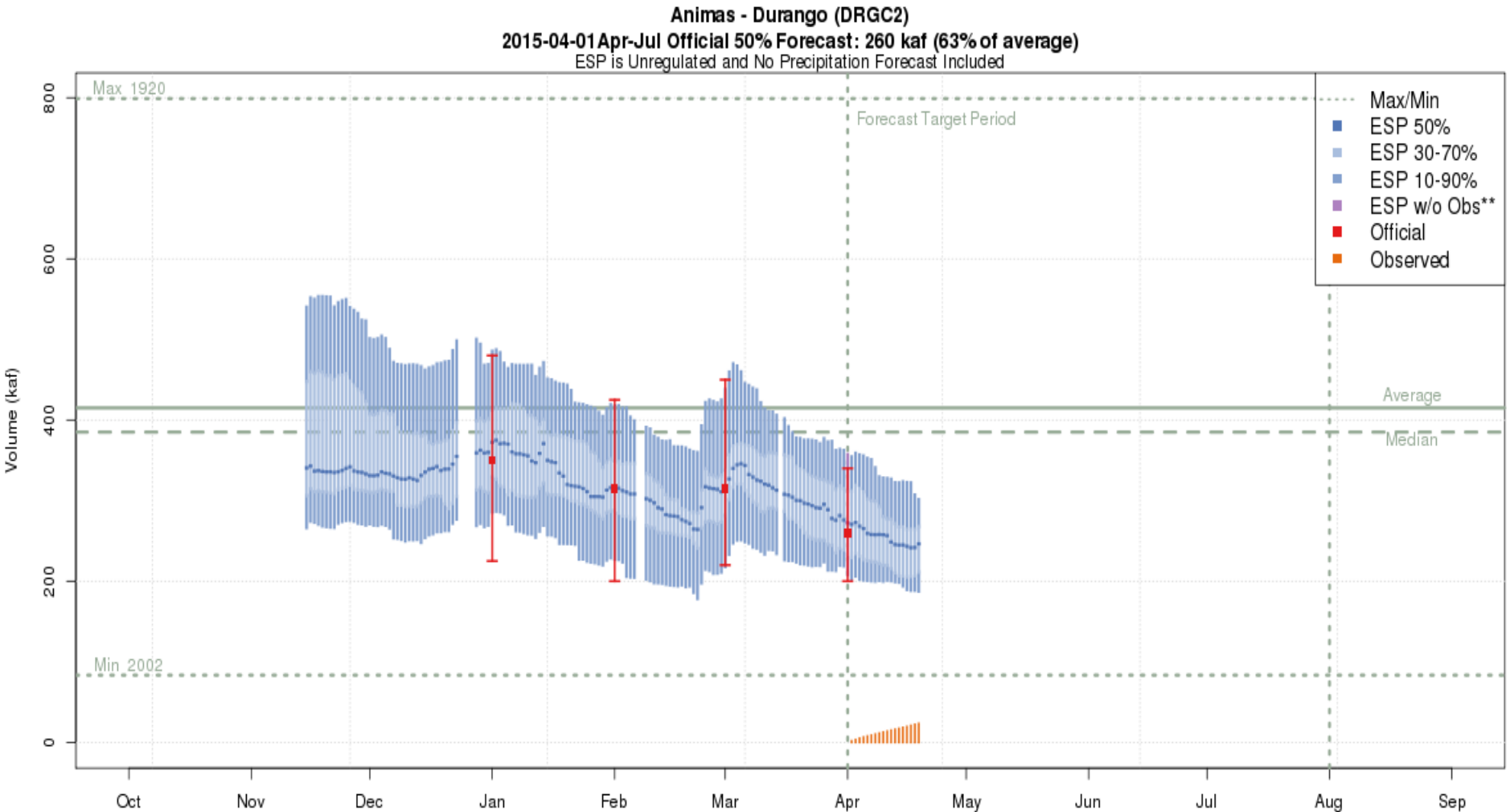
Navajo Reservoir Inflow – Forecast Evolution 2015

San Juan - Navajo Res- Archuleta- Nr (NVRN5)
 2015-04-01 Apr-Jul Official 50% Forecast: 310 kaf (42% of average)
 ESP is Unregulated and No Precipitation Forecast Included



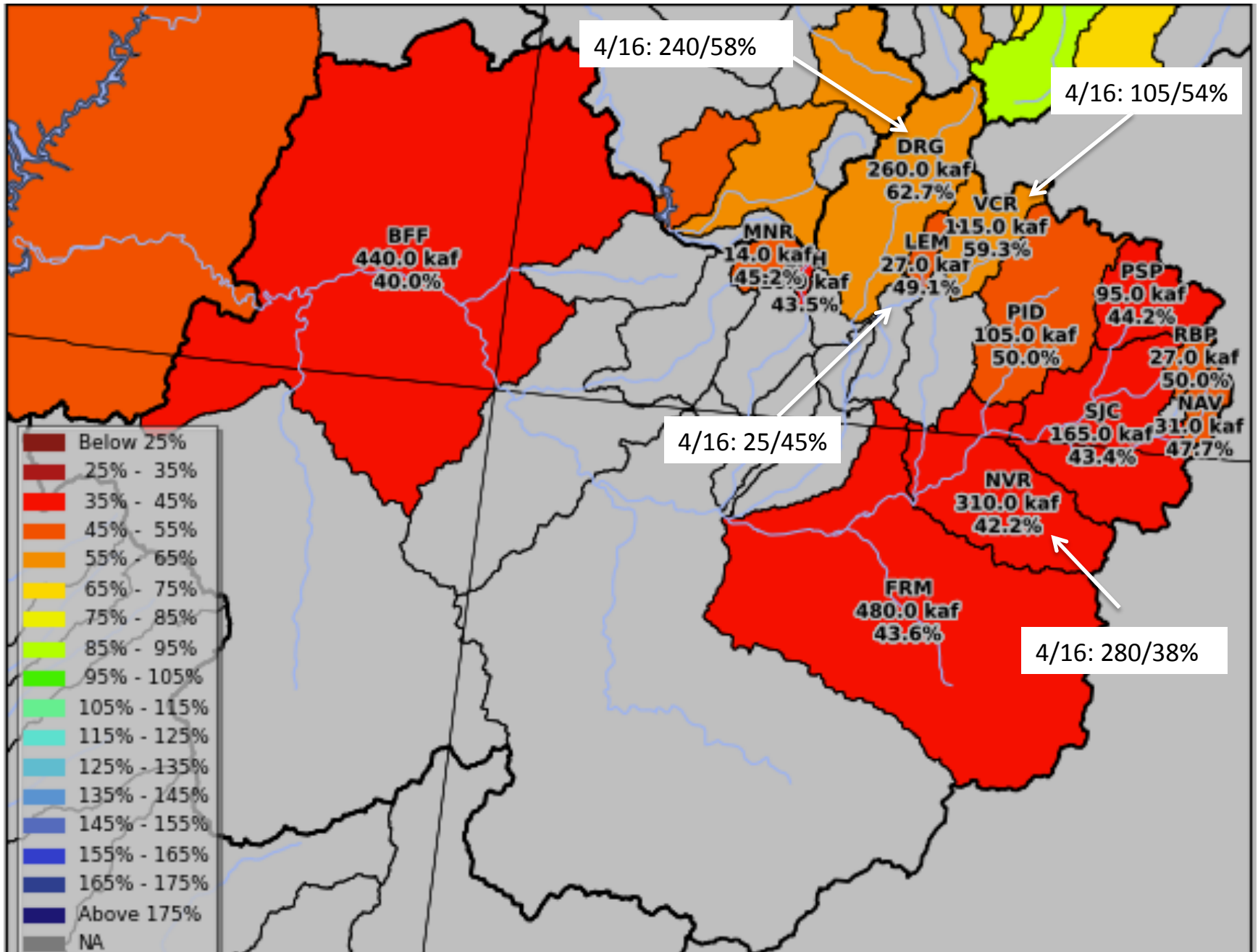
The latest (2015-04-19) 50% ESP forecast is 267 kaf.
 Plot Created 2015-04-19 15:29:52, NOAA / NWS / CBRFC
 Forecasts in the forecast target period include observed values.

Animas River – Forecast Evolution 2015



The latest (2015-04-19) 50% ESP forecast is 246 kaf.
Plot Created 2015-04-19 15:28:14, NOAA / NWS / CBRFC
Forecasts in the forecast target period include observed values.

Forecast Distribution: San Juan River Basin – April 1st & Mid-April Updates

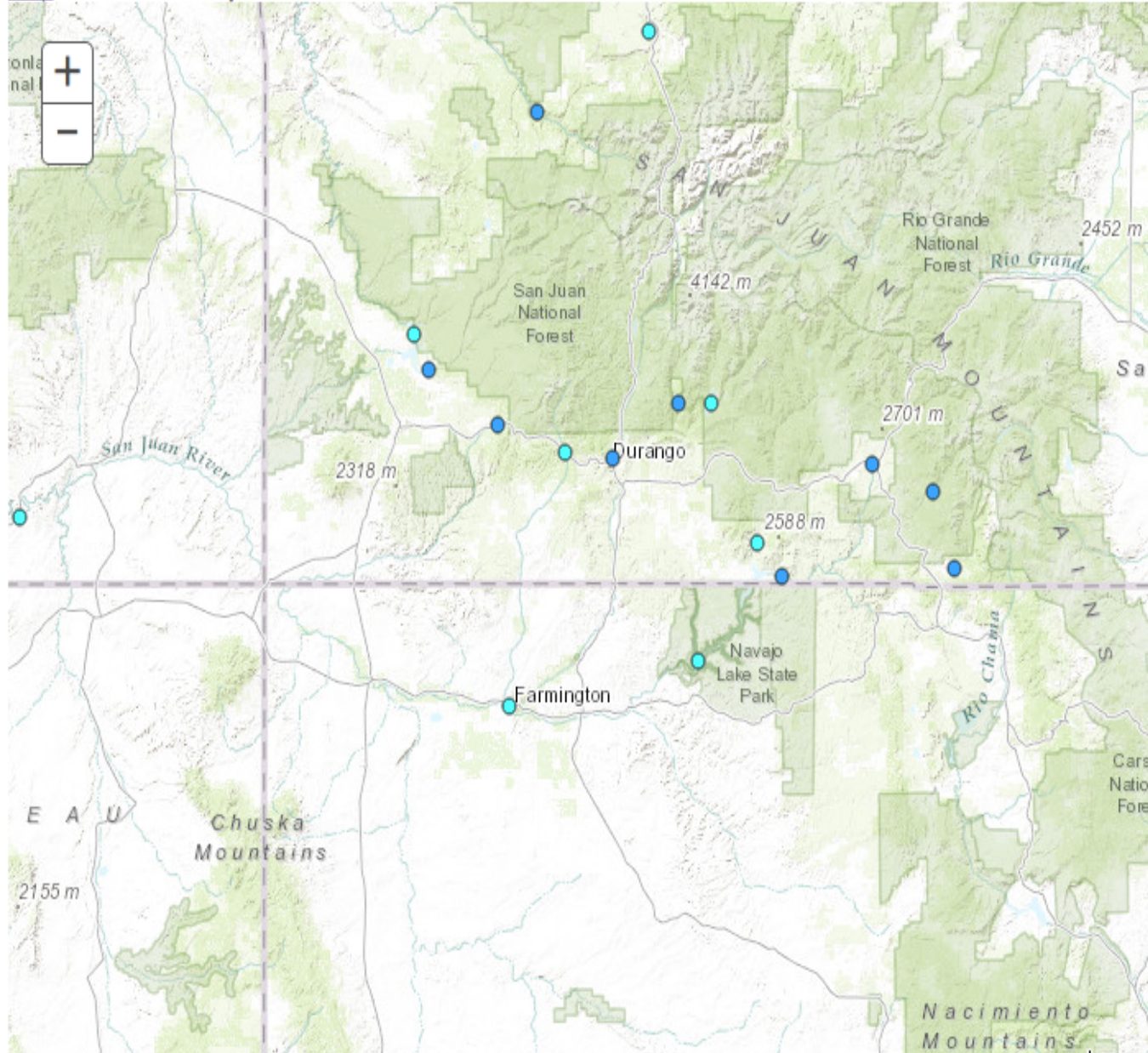


Historical Water Supply Verification - April

[Help](#) Double Click Map to Zoom

Forecast Month

- [January](#)
- [February](#)
- [March](#)
- [April](#)
- [May](#)
- [June](#)



% Error

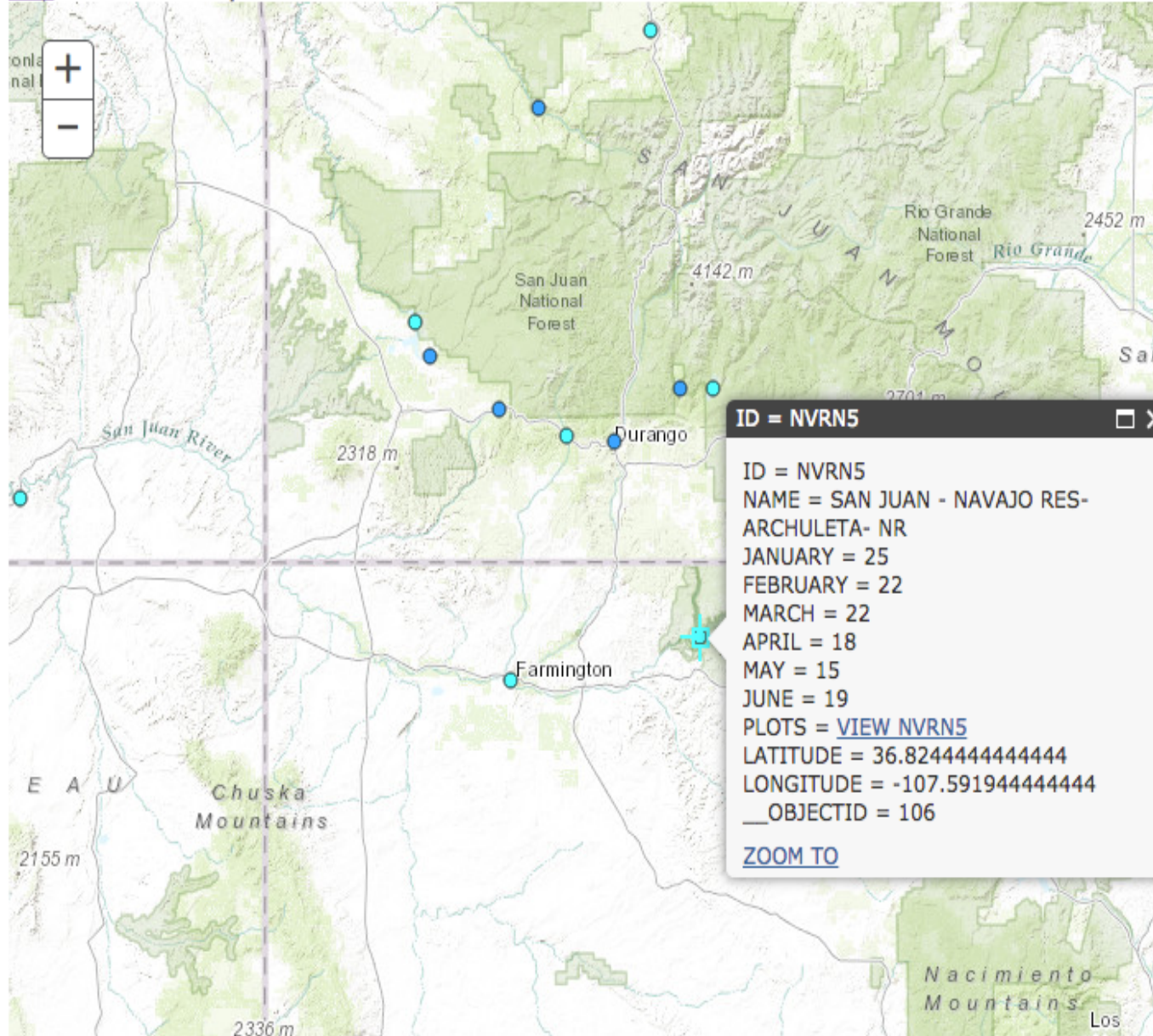
- No Data
- 1 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- >40

Historical Water Supply Verification - April

[Help](#) Double Click Map to Zoom

Forecast Month

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- [April](#)
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- [June](#)

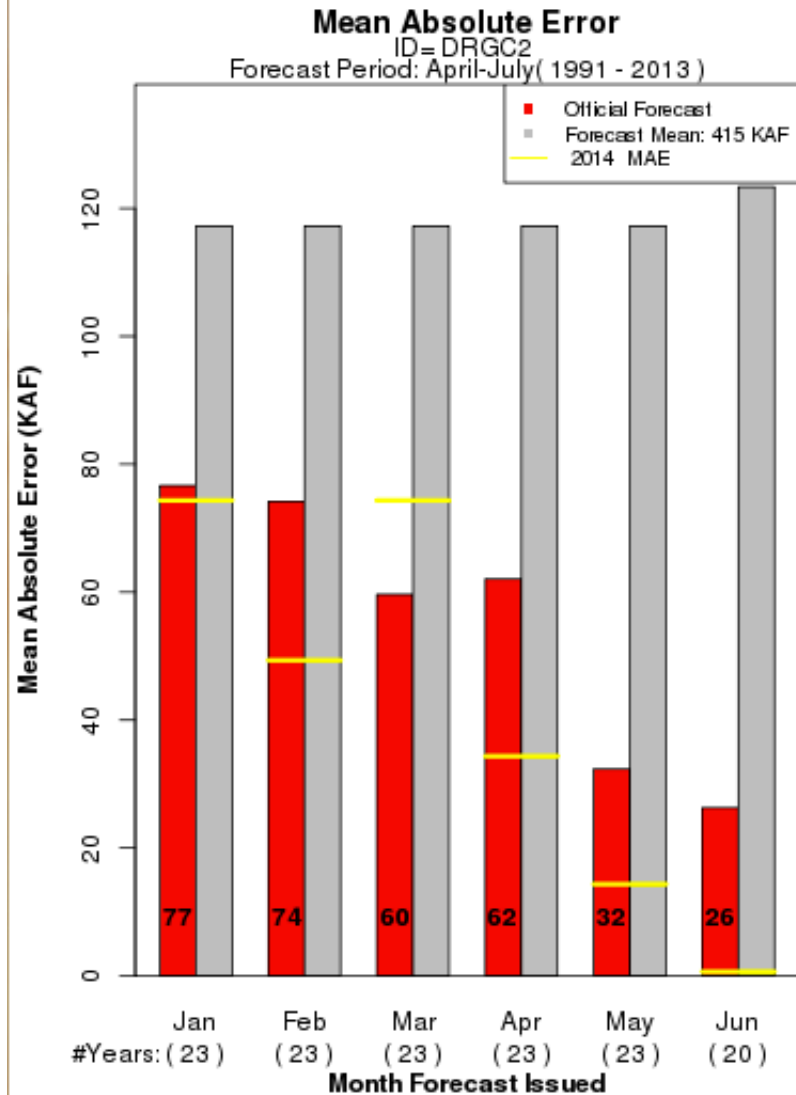
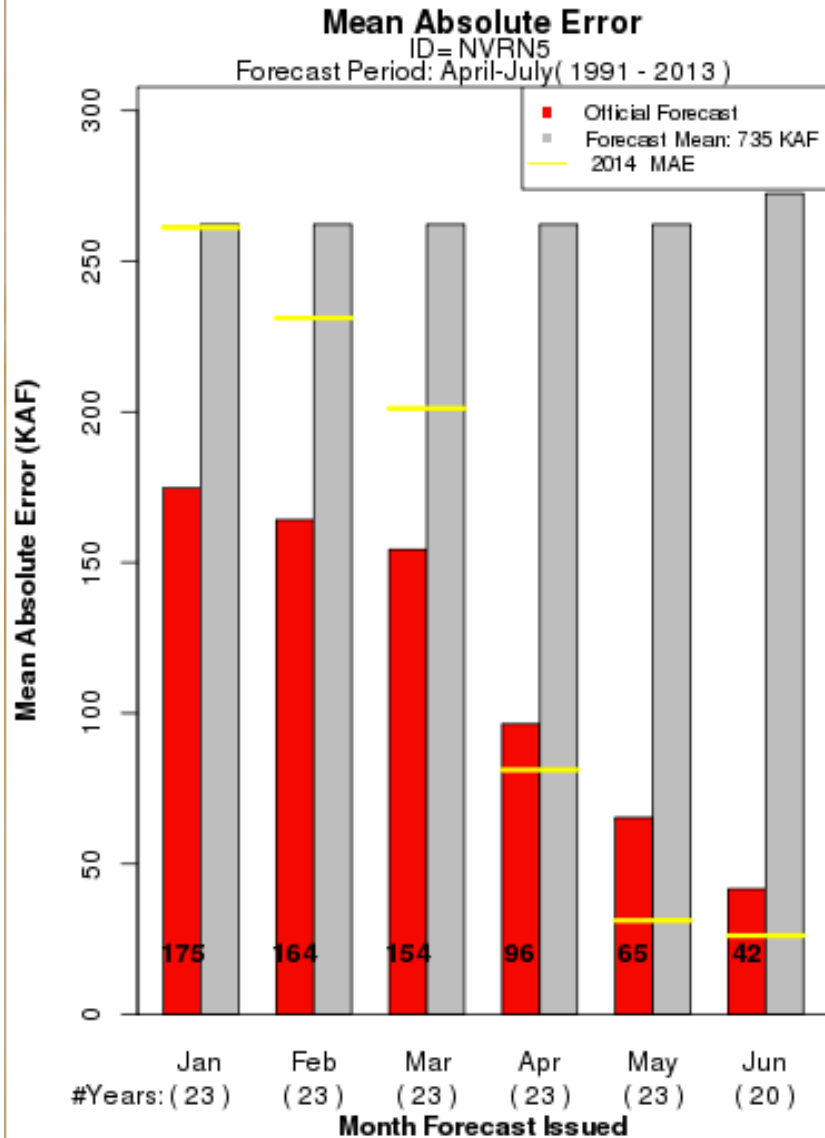


% Error

- No Data
- 1 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 - 25
- 25 - 30
- 30 - 35
- 35 - 40
- >40

How Good Is The Forecast ?

Mean Absolute Forecast Error (last 23 years)

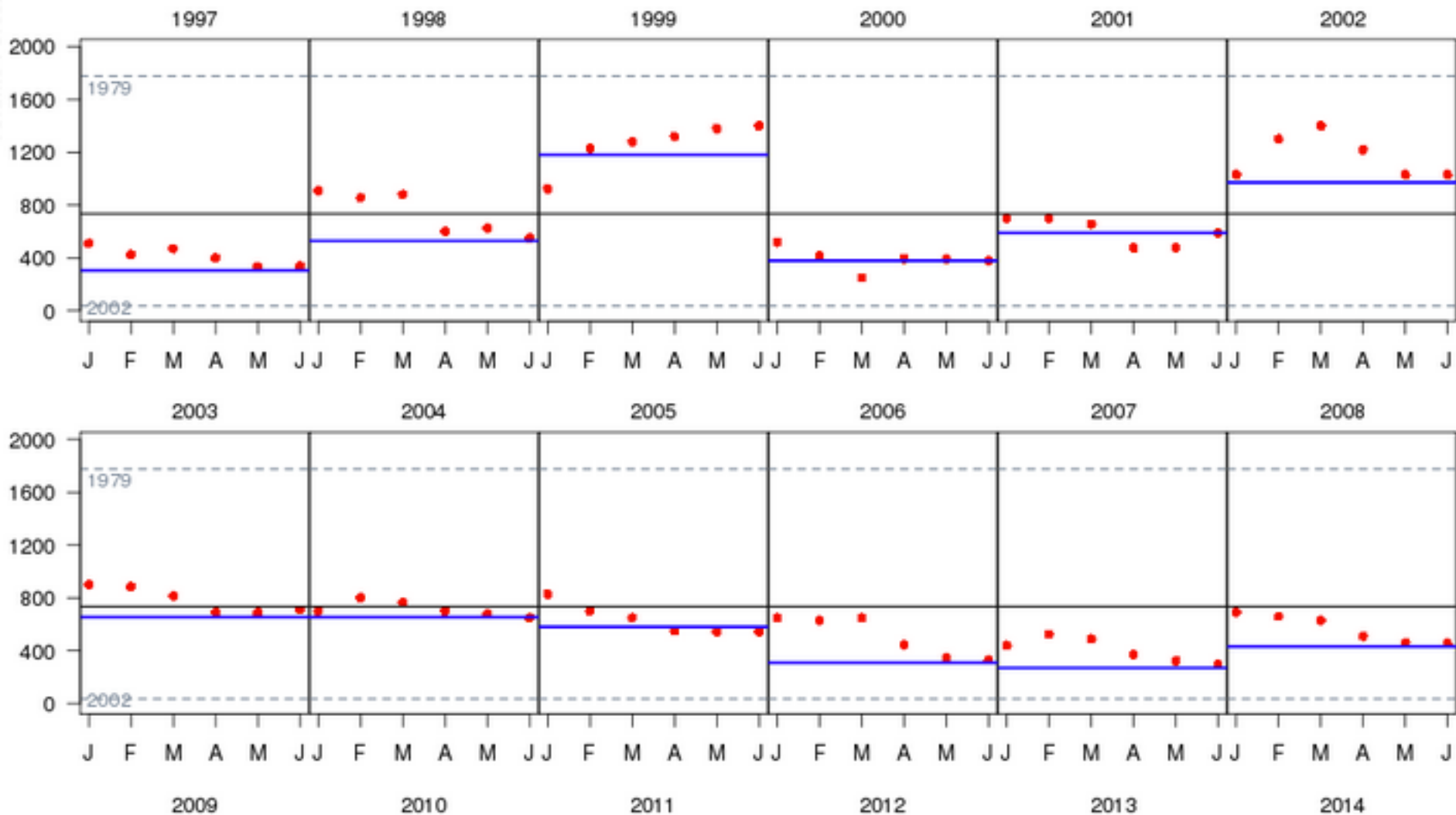


How Good Is The Forecast ?

Early Season Over Forecasts

— Apr-Jul Observed

● Apr-Jul Forecast



Questions or Comments

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