Winter 2010

Weekly Climate, Water & Drought Assessment

Today's Agenda

-Background Information

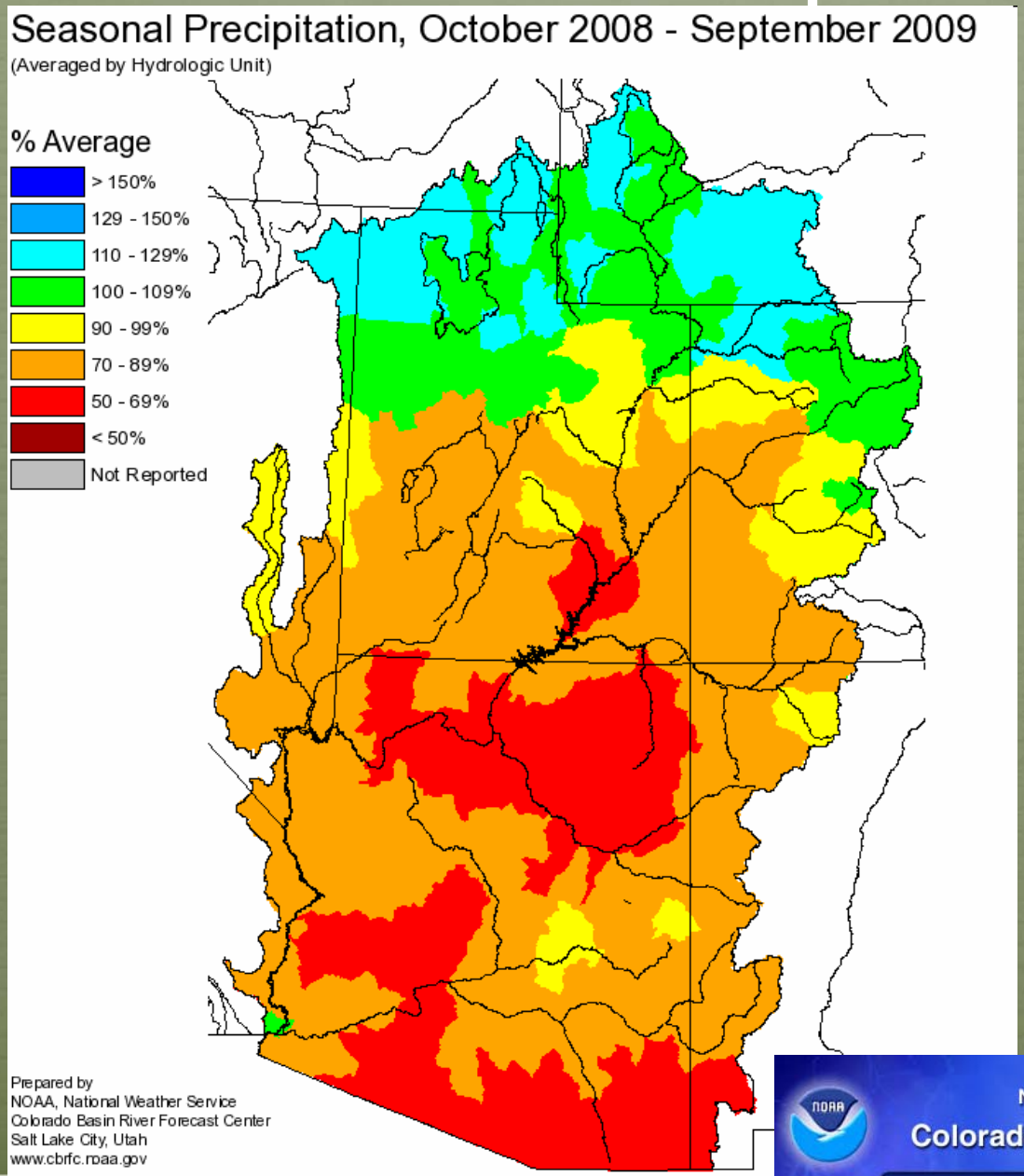
-Assessment of current water conditions

- Precipitation Forecast

- Recommendations for Drought Monitor

Background

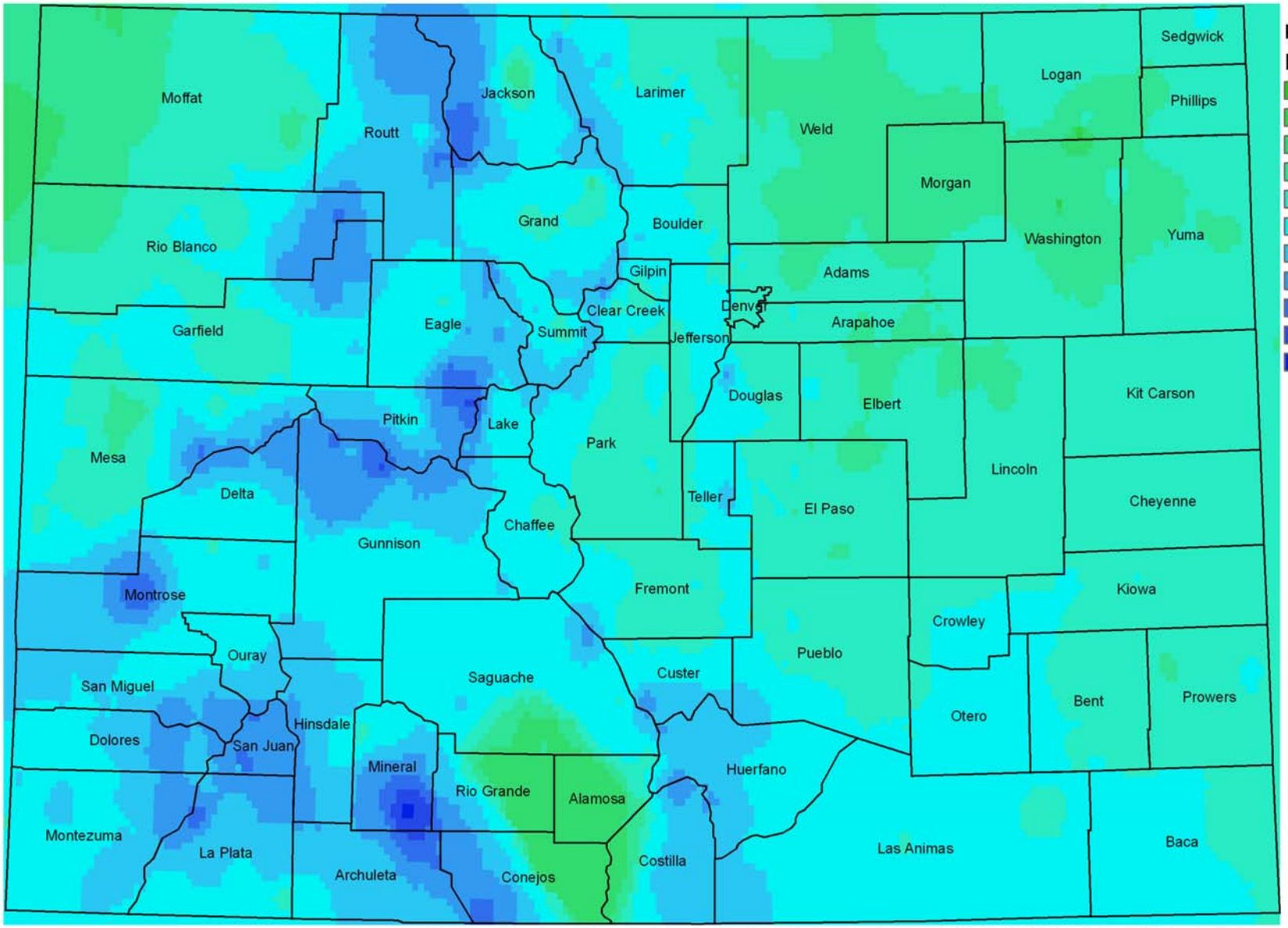
WY 2009 Precipitation



NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

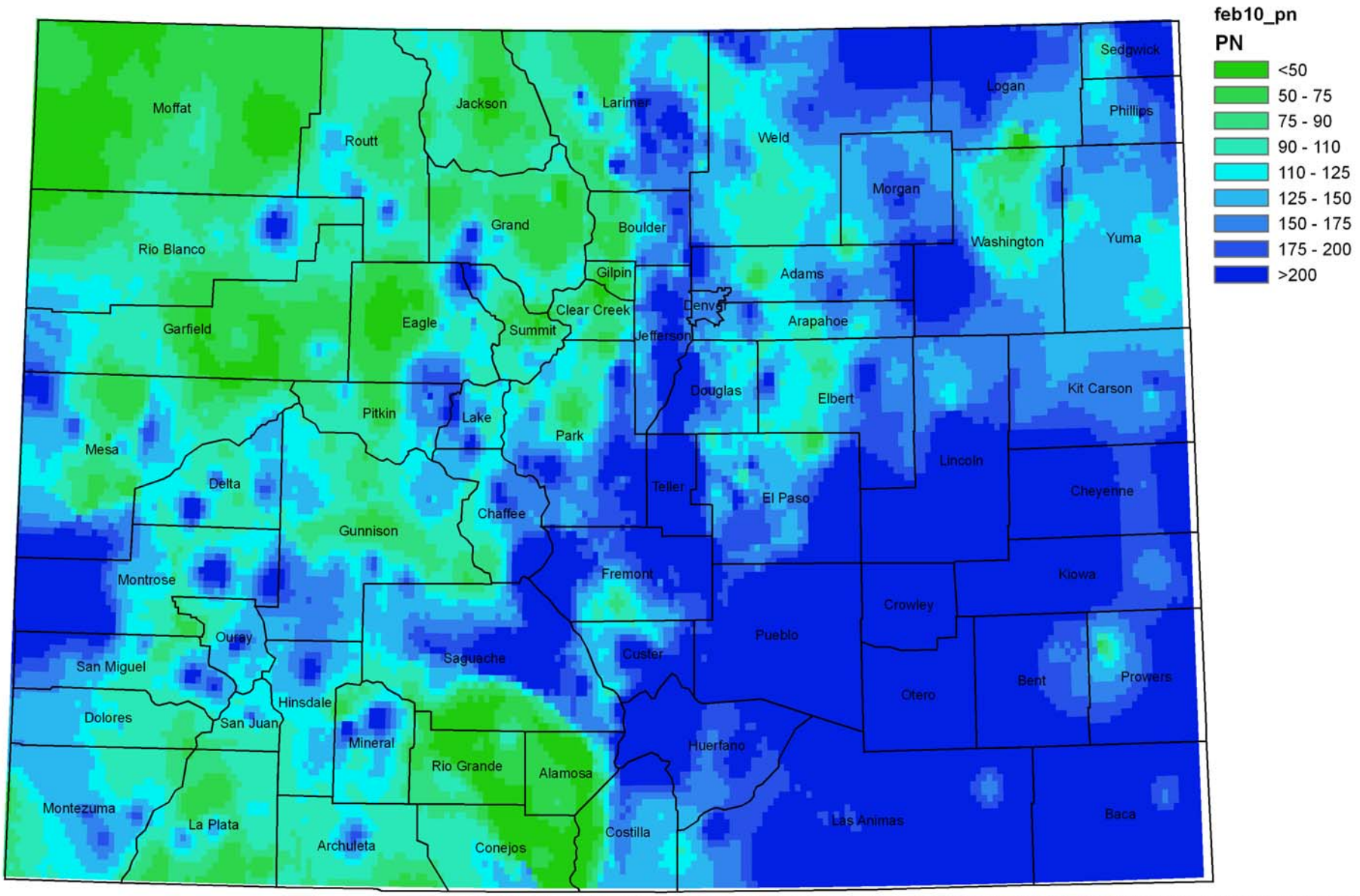
Precipitation/Snowpack Update

Colorado Precipitation (in) February 2010



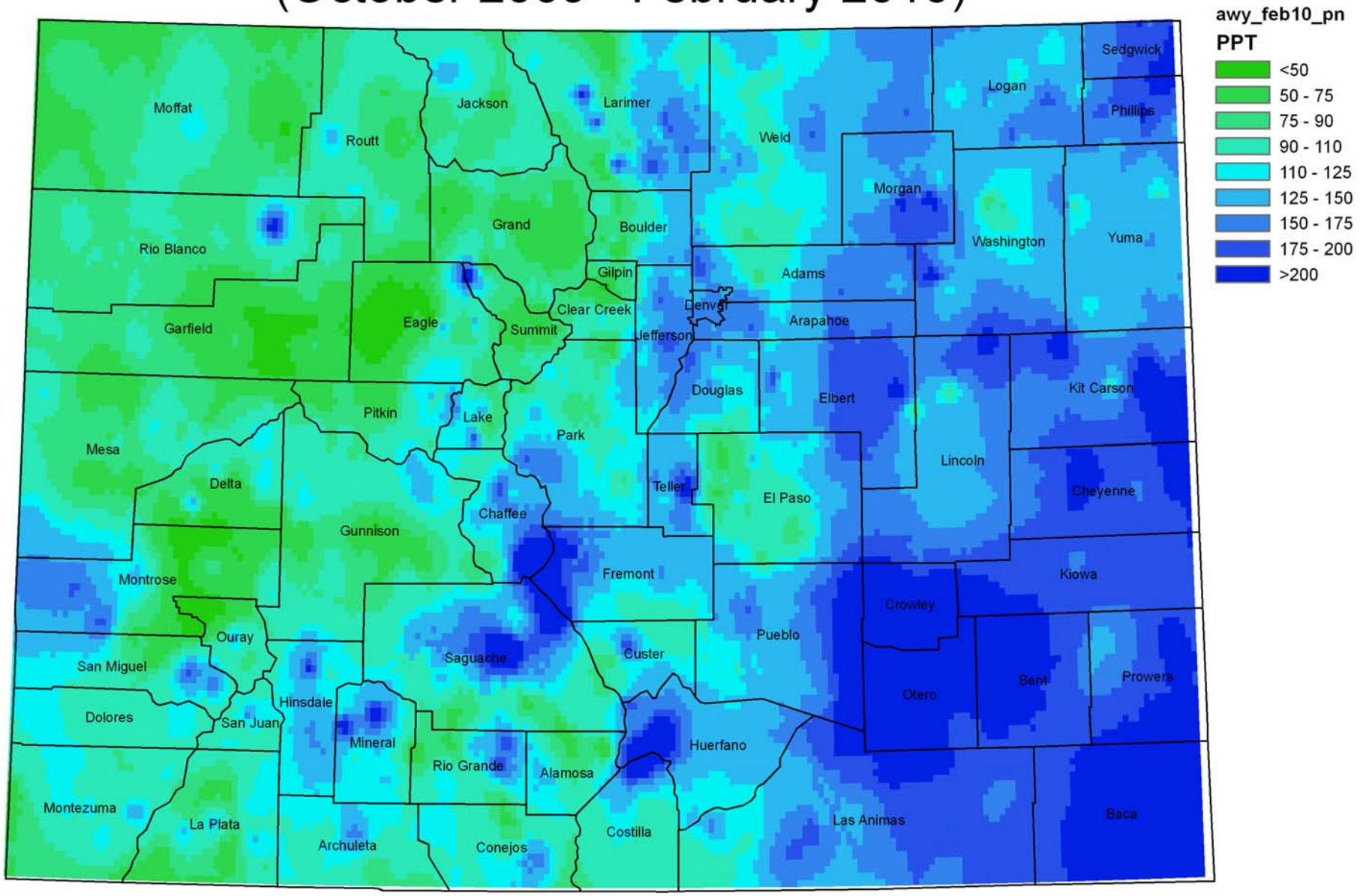
Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

February 2010 Precipitation as Percent of Normal



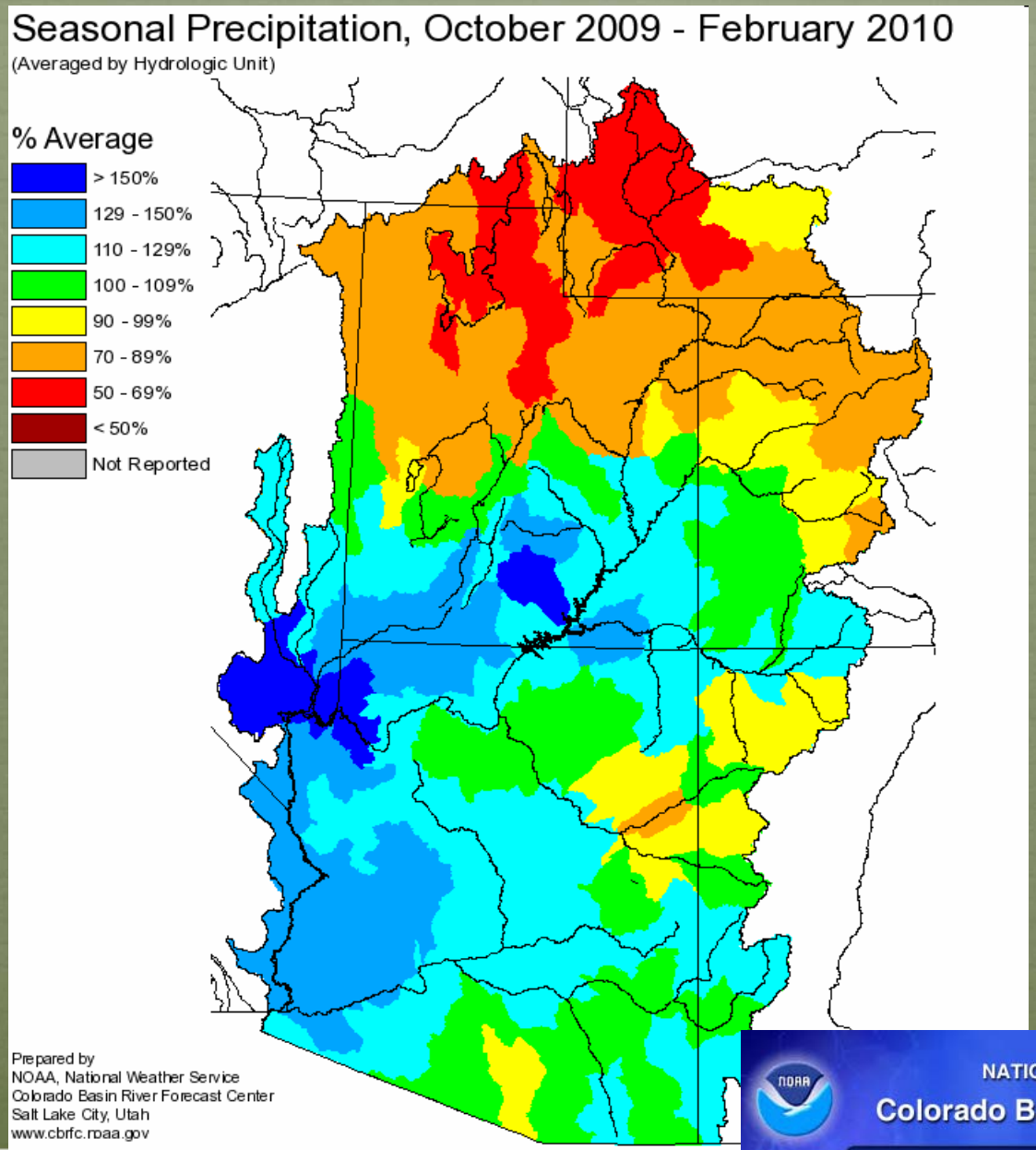
Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

Water Year 2010 Precipitation as Percent of Normal
(October 2009 - February 2010)

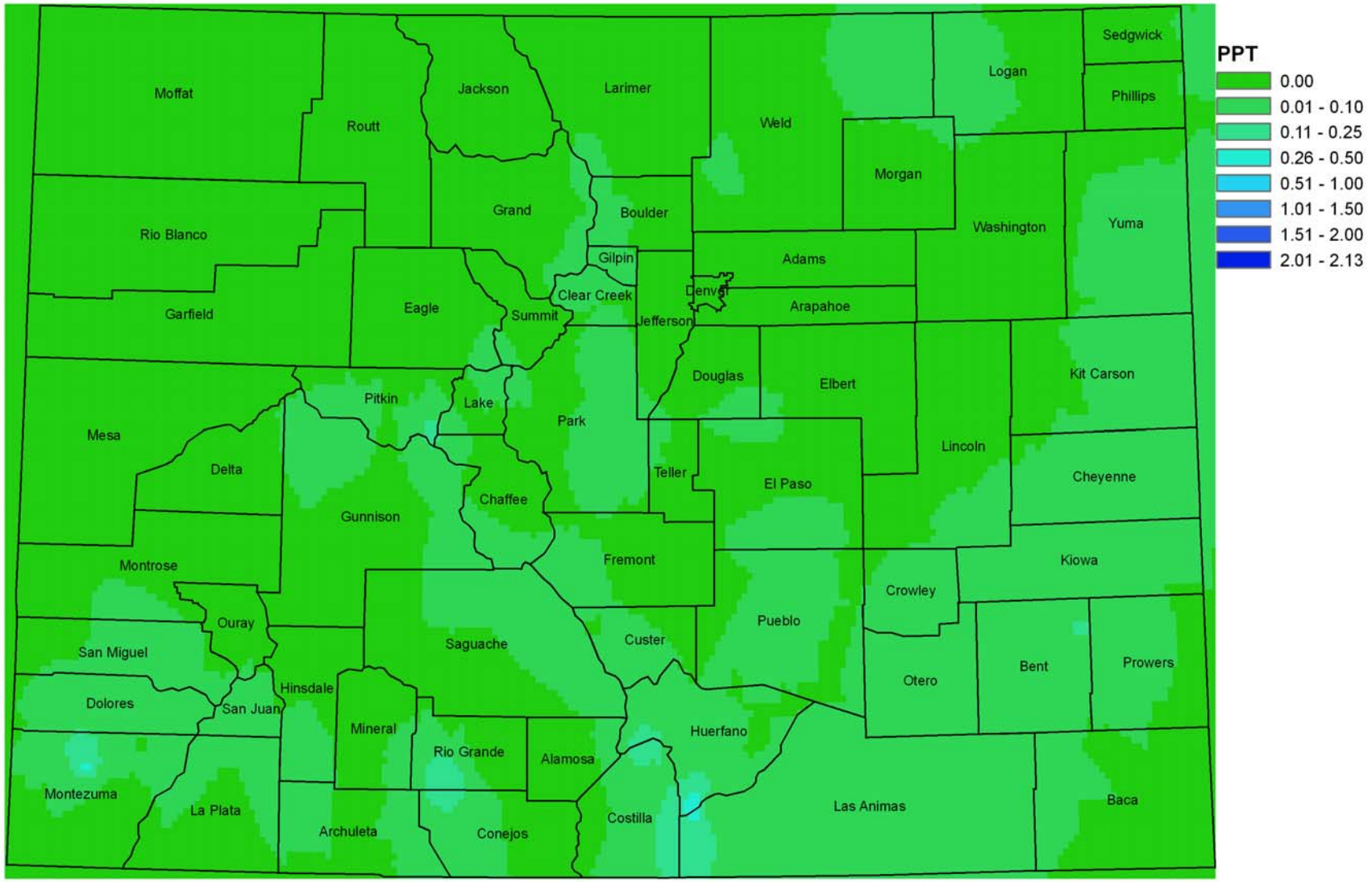


Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

WY 2010 Precipitation

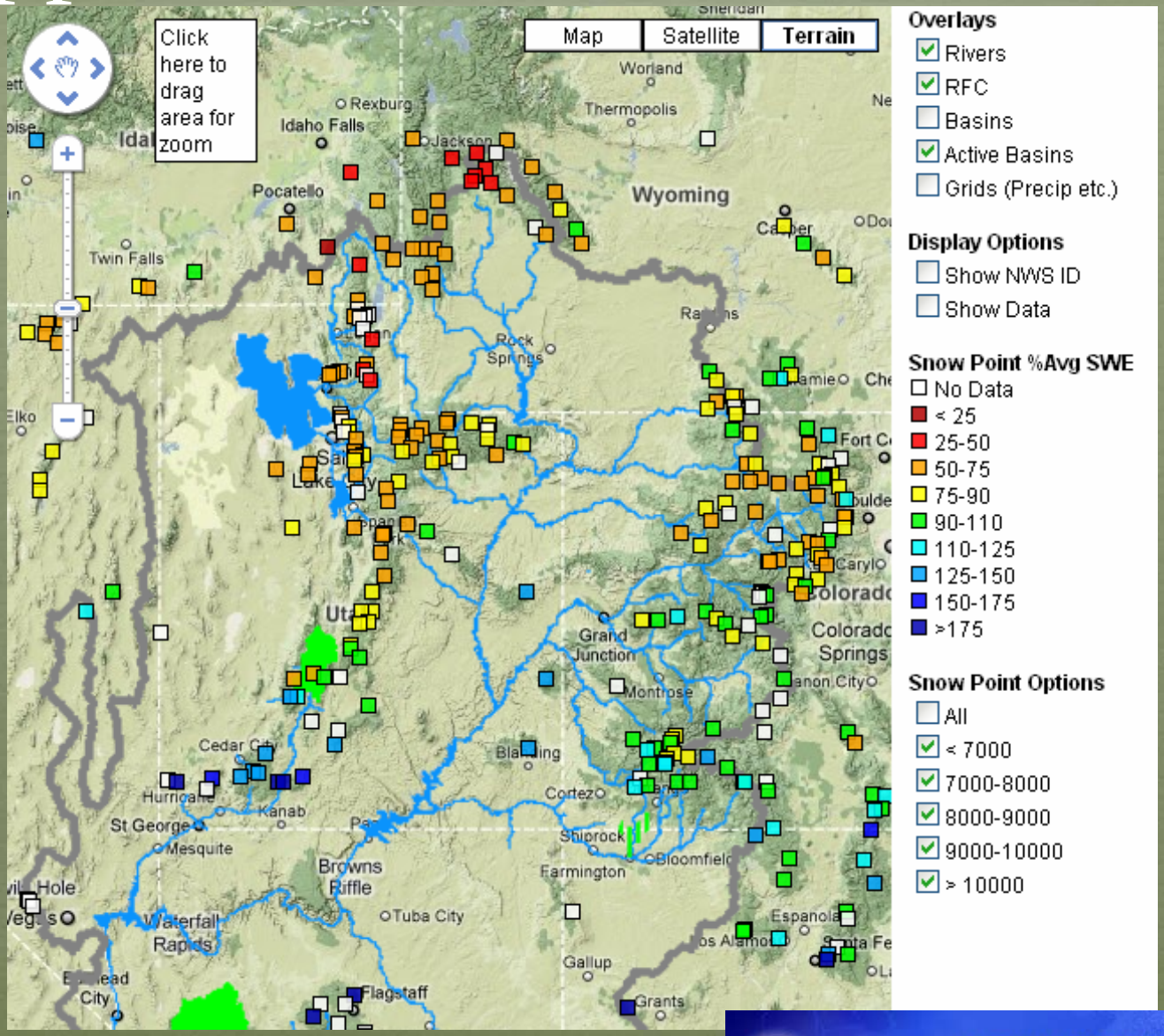


7 Day Precipitation Animation 1-7 March 2010



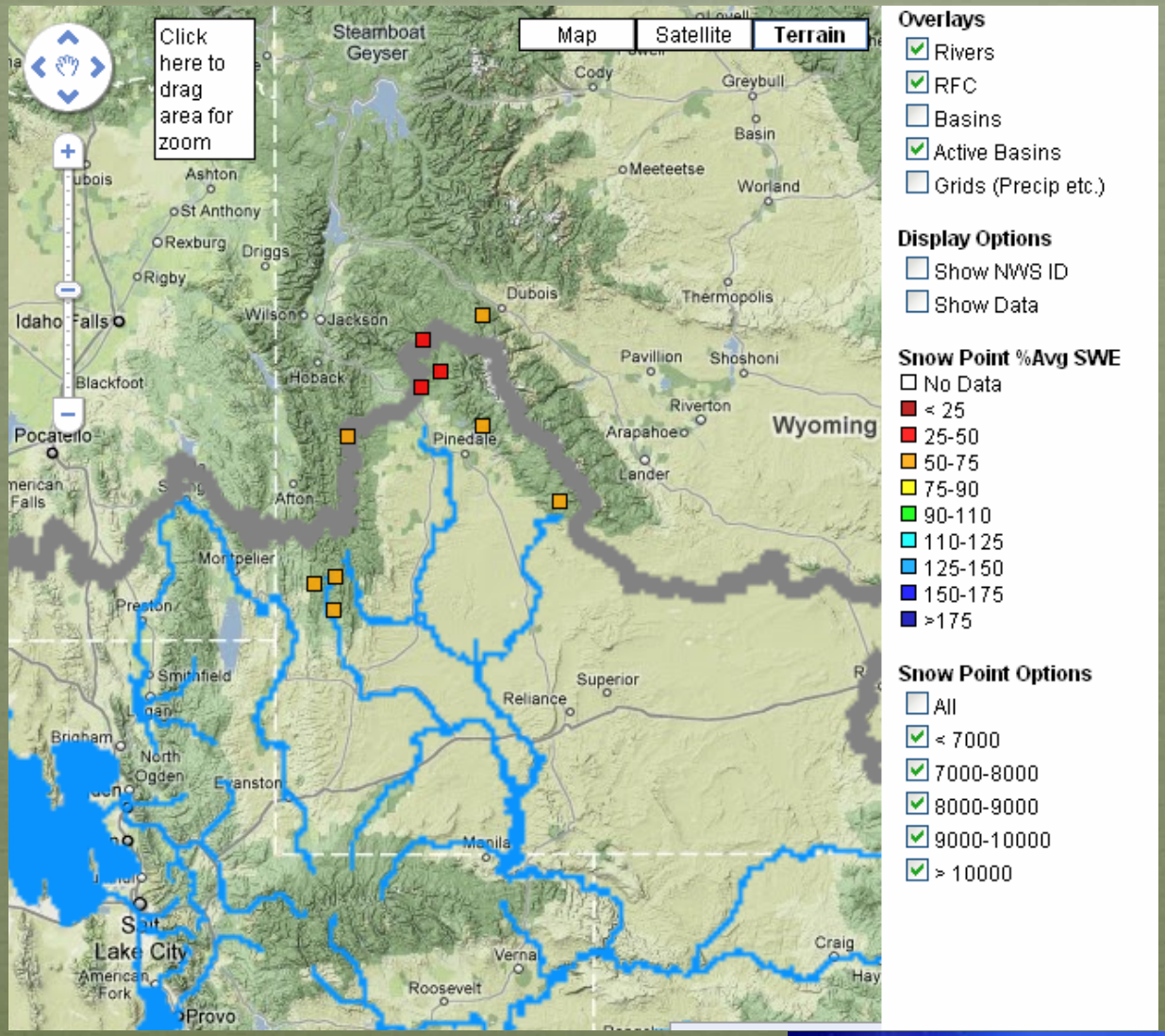
Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

Upper Colorado River Basin

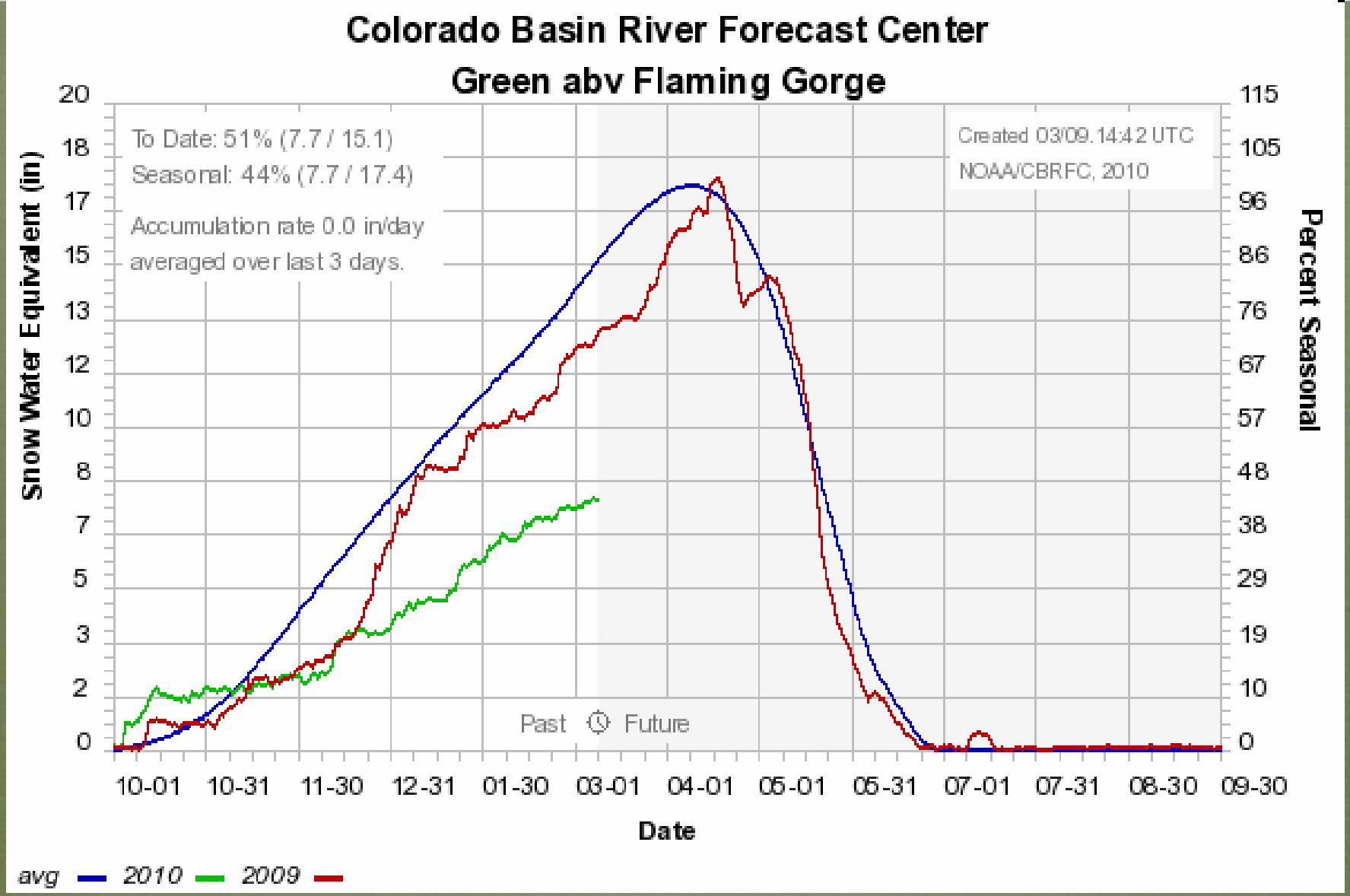


NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

Green River Basin above Flaming Gorge



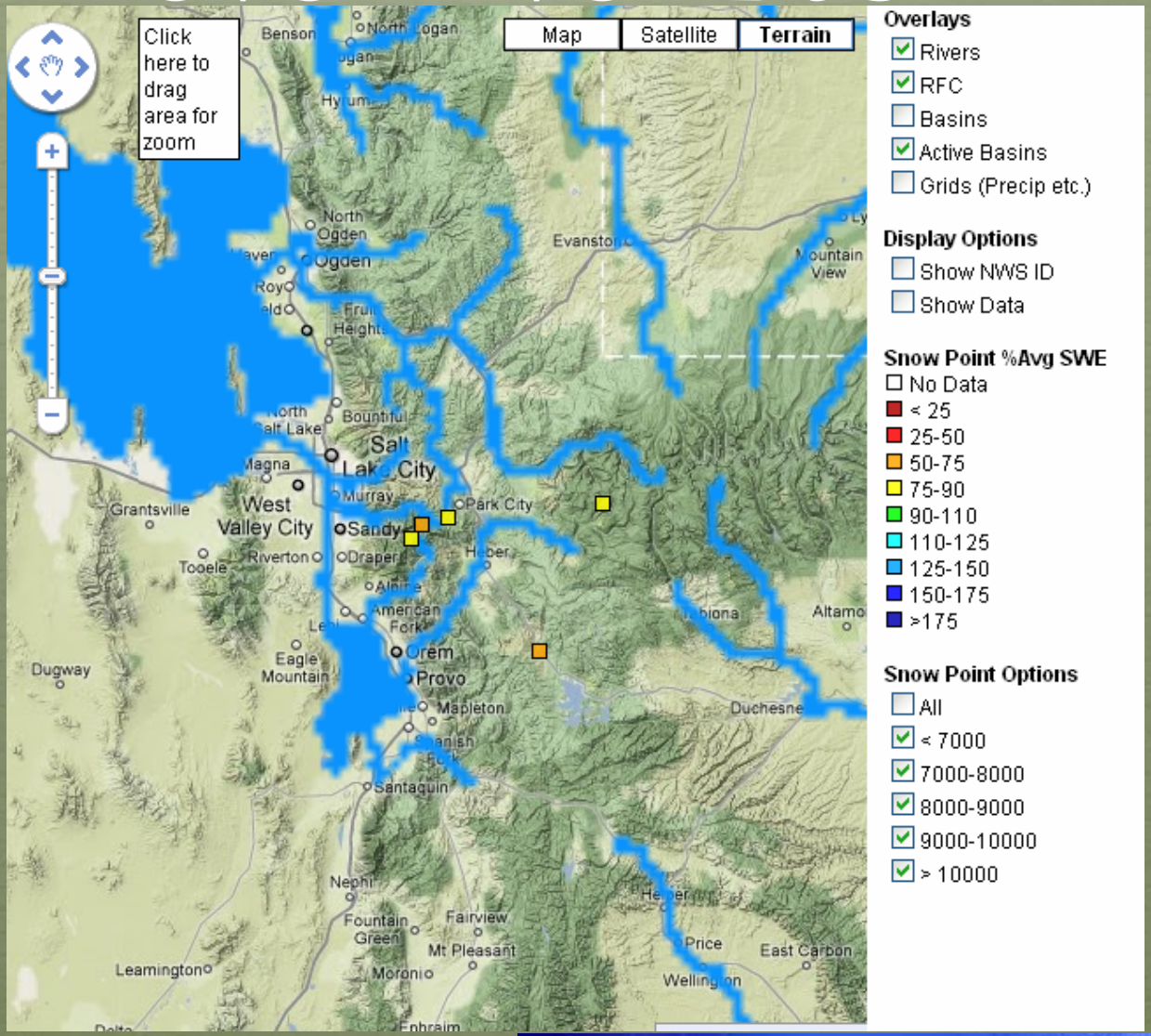
NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center



Basin Snowpack: 51%

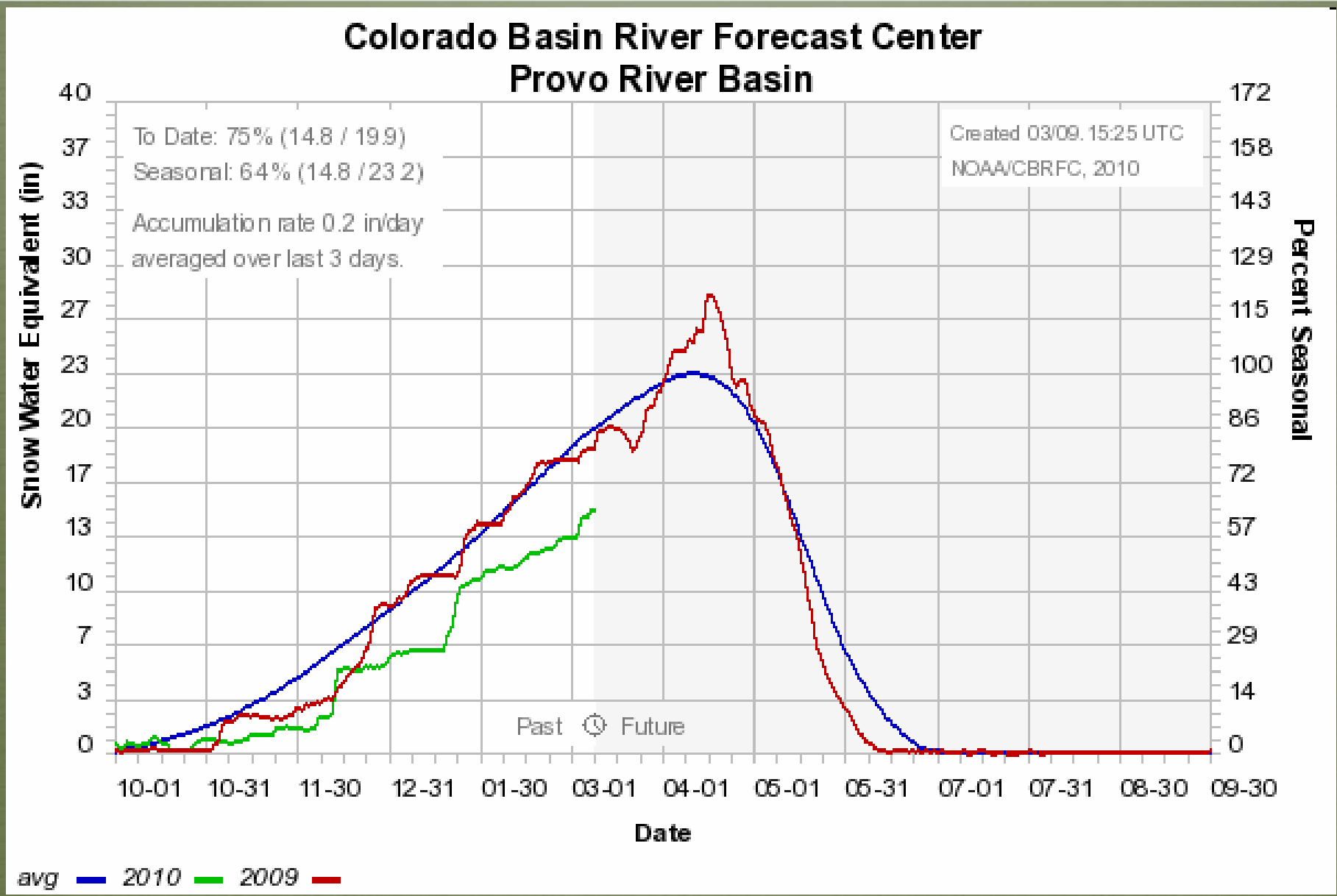
NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

Provo River Basin



NATIONAL WEATHER SERVICE

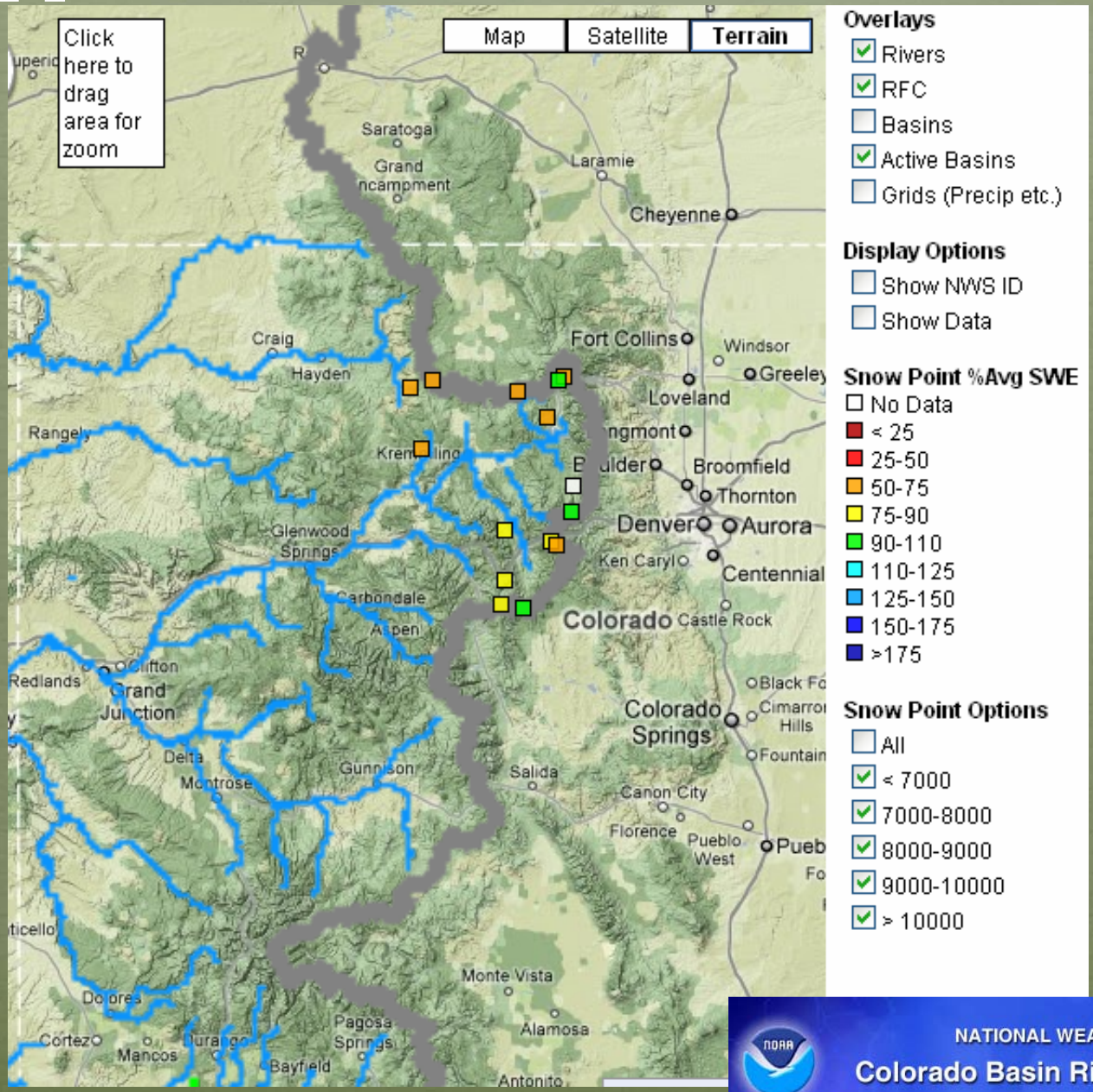
Colorado Basin River Forecast Center



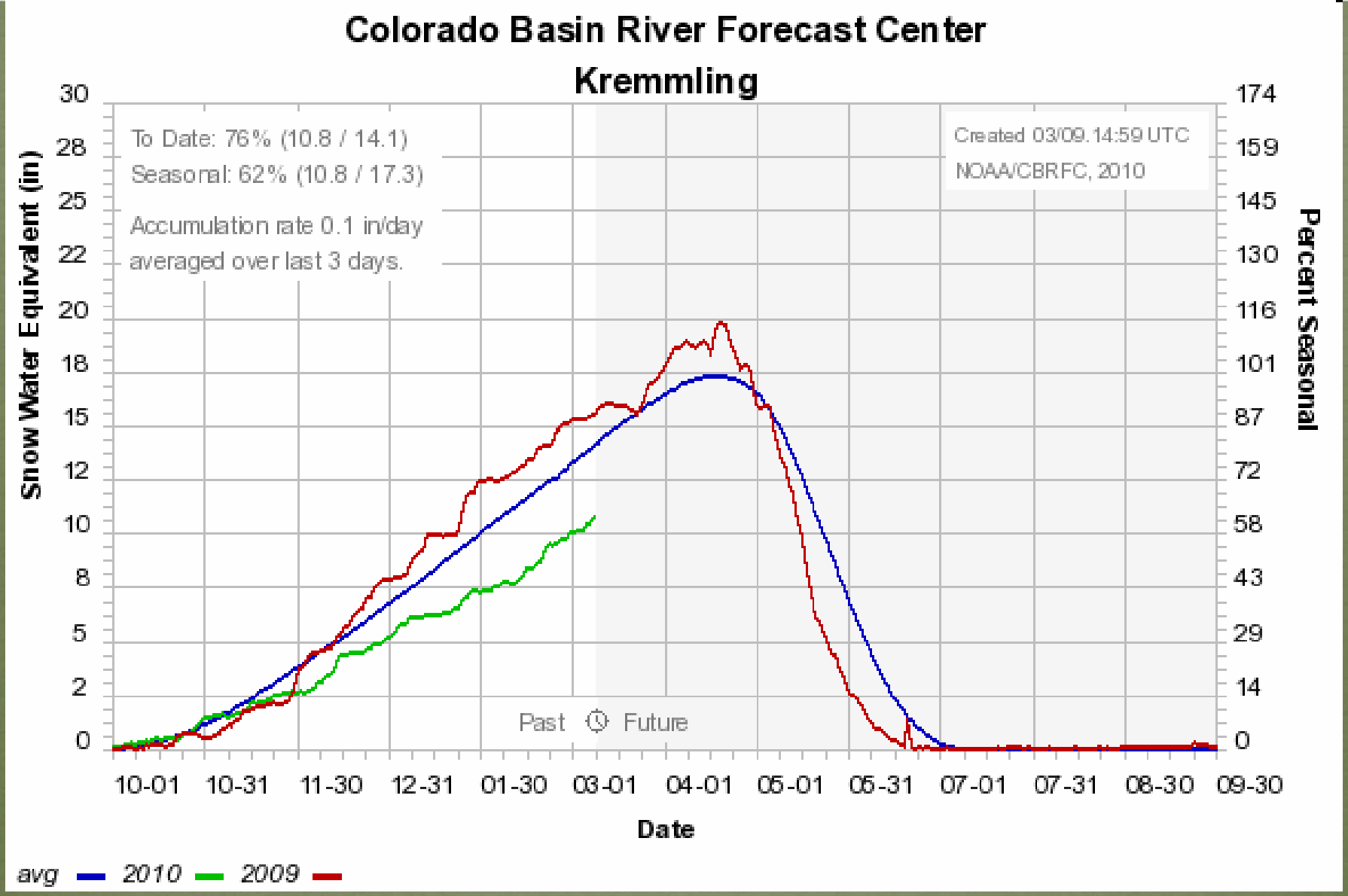
Basin snowpack: 75%

NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

Upper Colorado above Kremmling



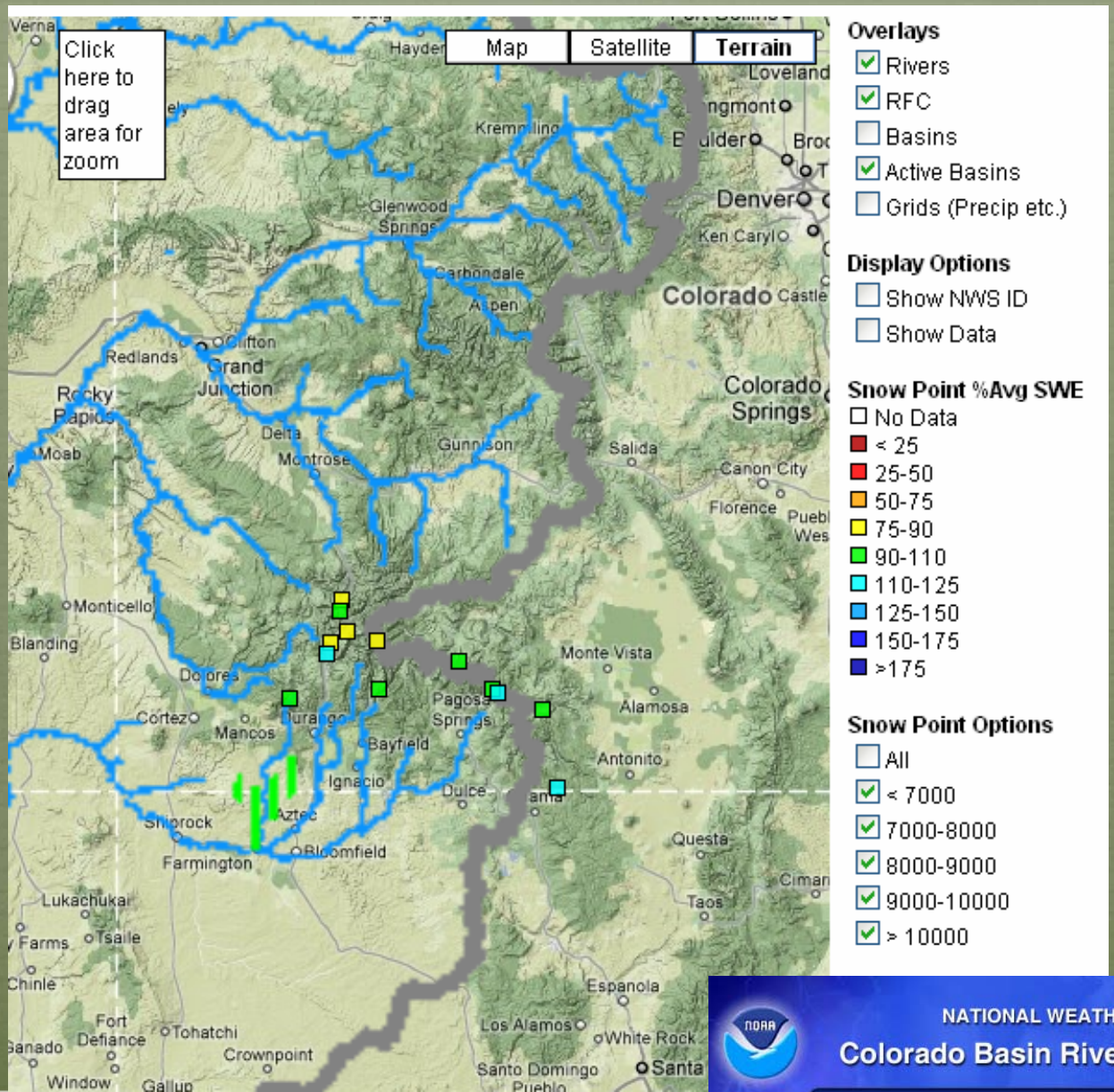
NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

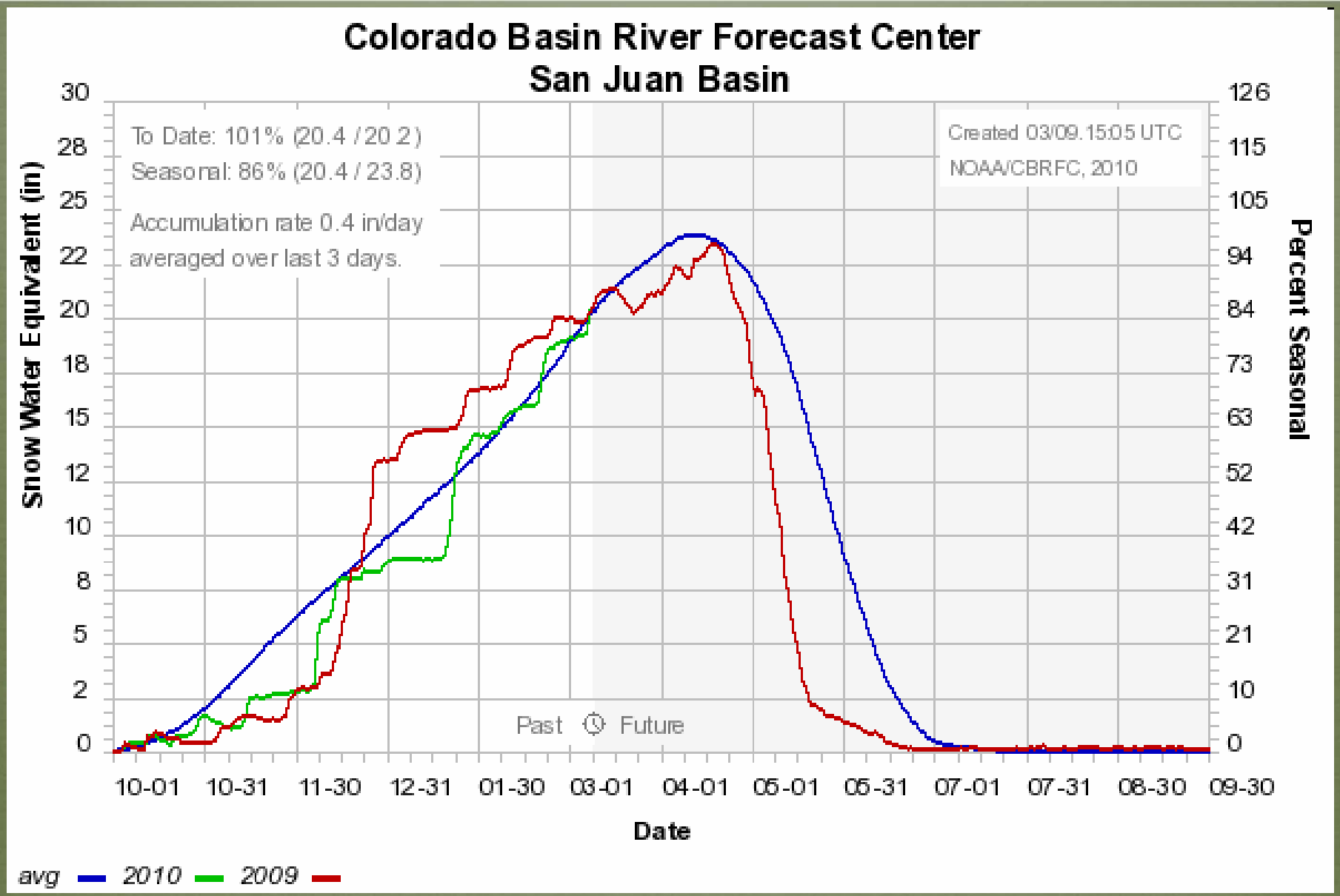


Basin Snowpack: 76%

NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

San Juan Basin

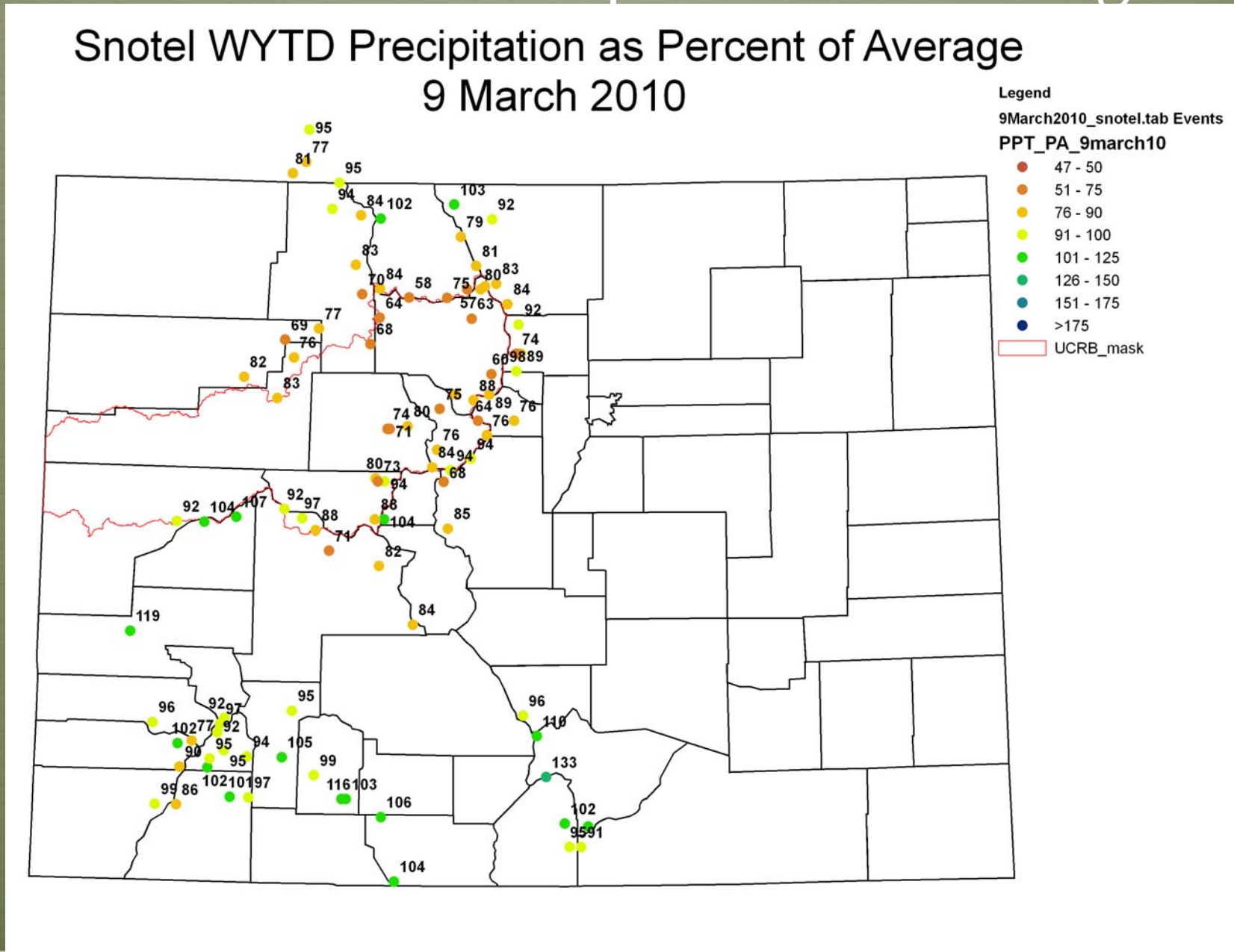




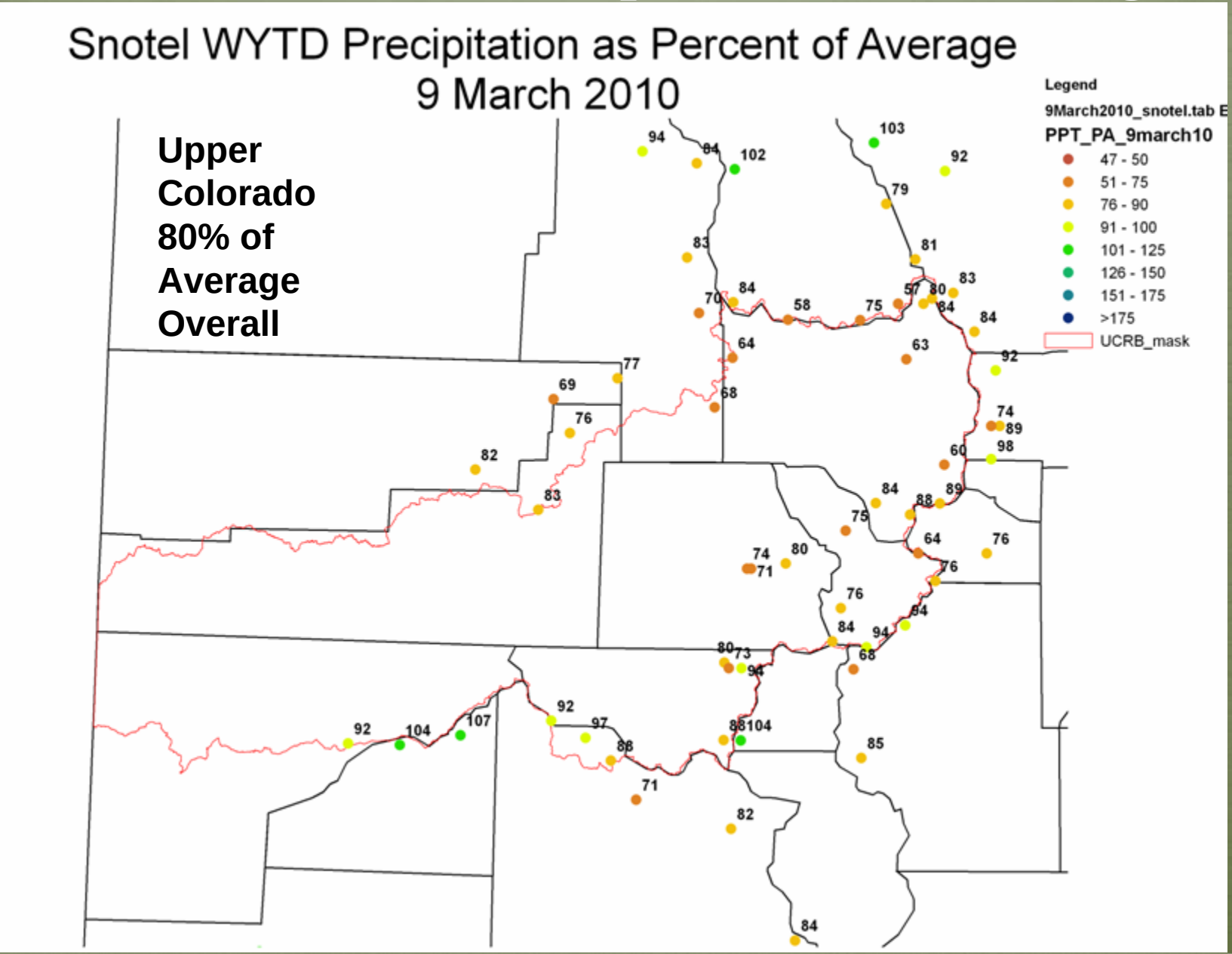
Snowpack: 101%

NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

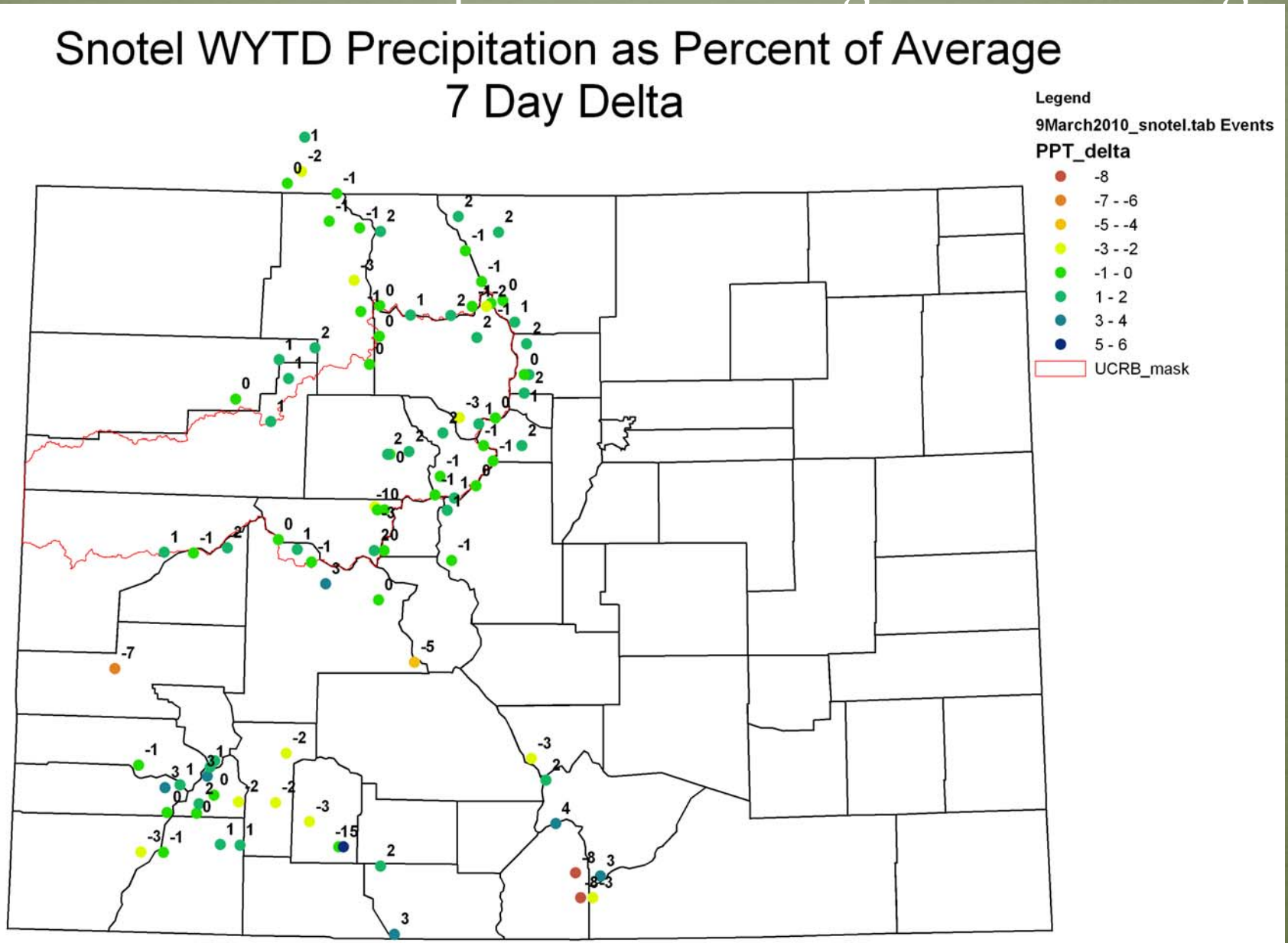
Snotel WYTD Precipitation % Average



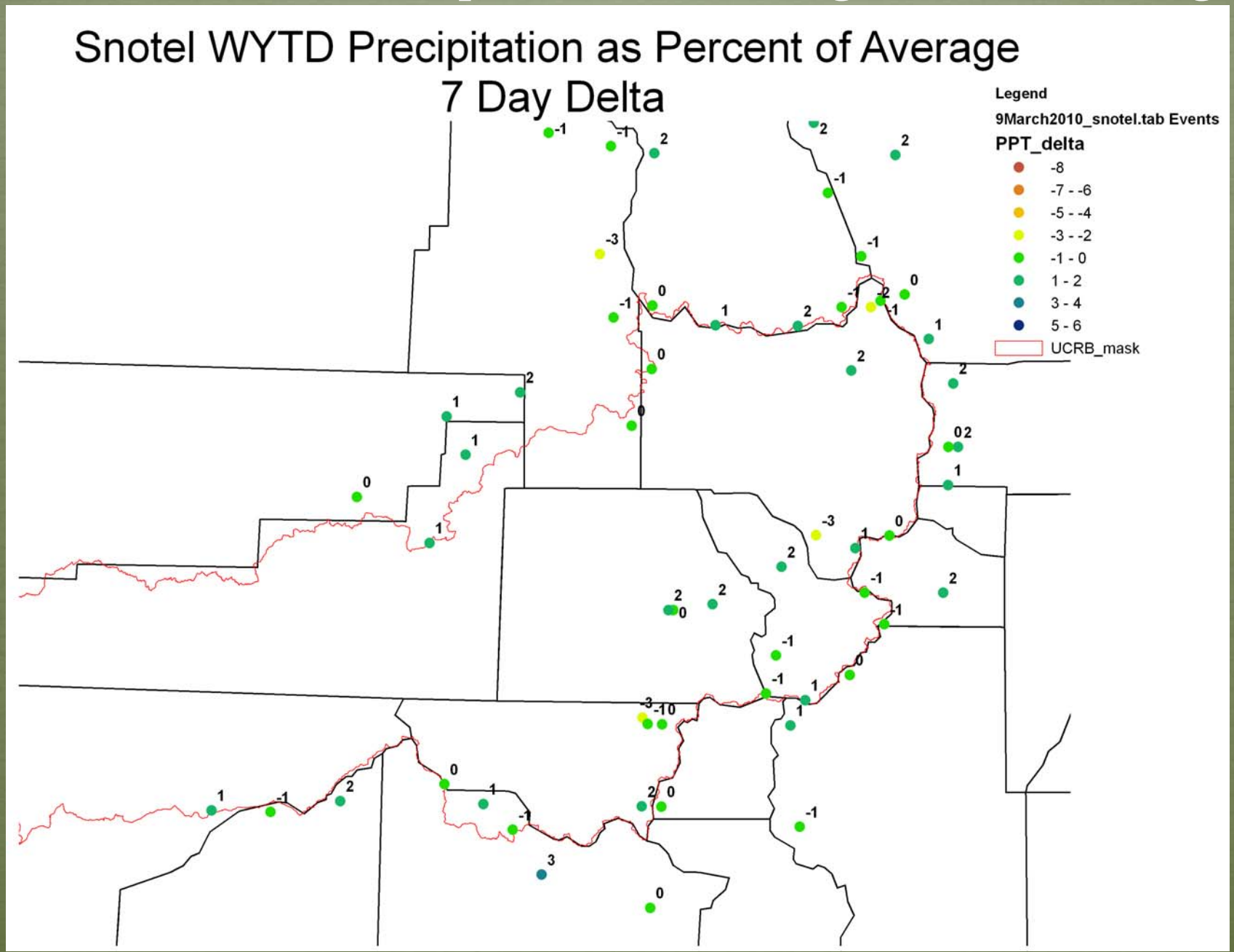
Snotel WYTD Precipitation % Average



Snotel WYTD Precipitation % Average 1 Week Change

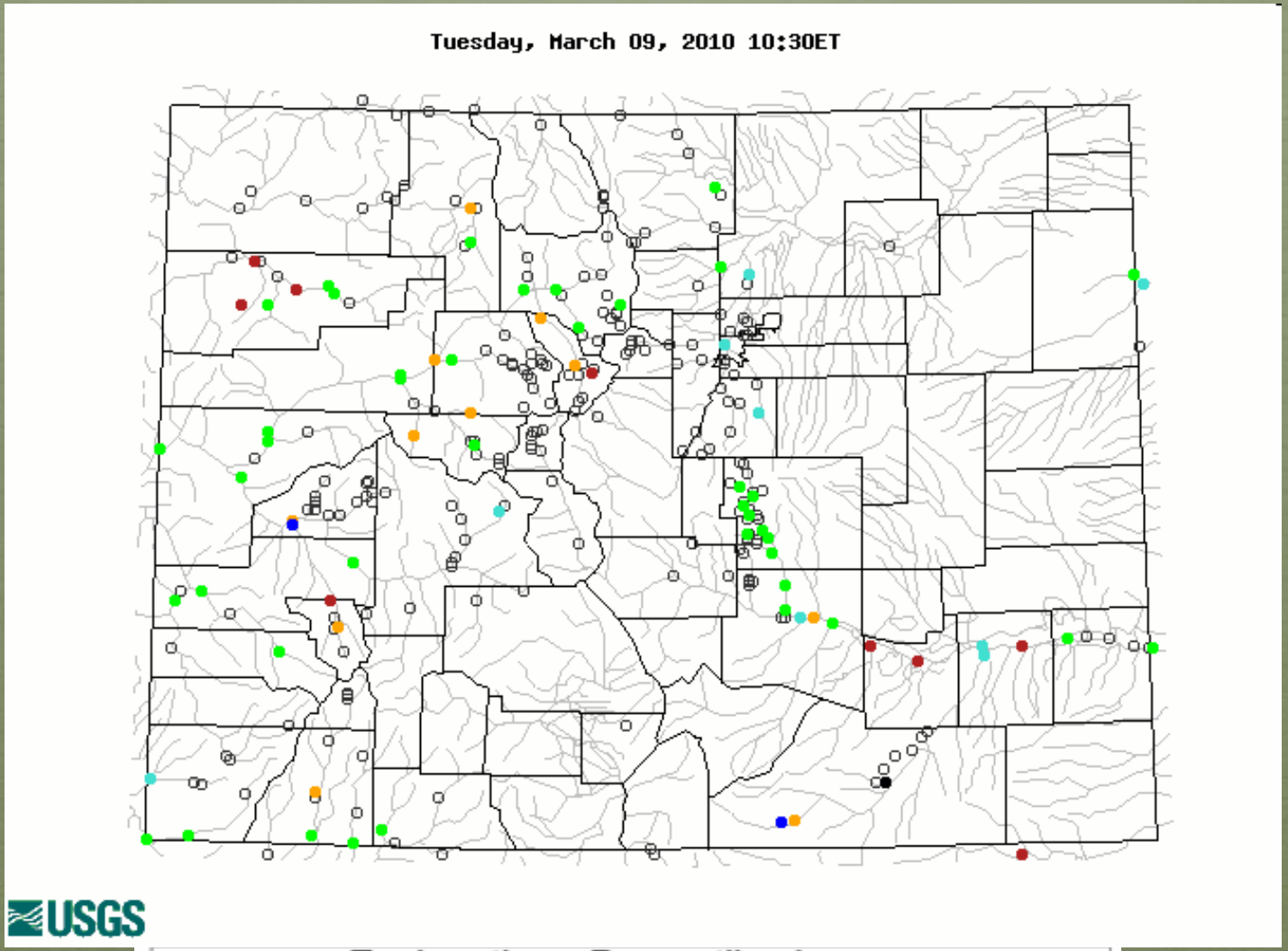


Snotel WYTD Precipitation % Average 1 Week Change



Streamflow Update

Streamflow 9 March 2010



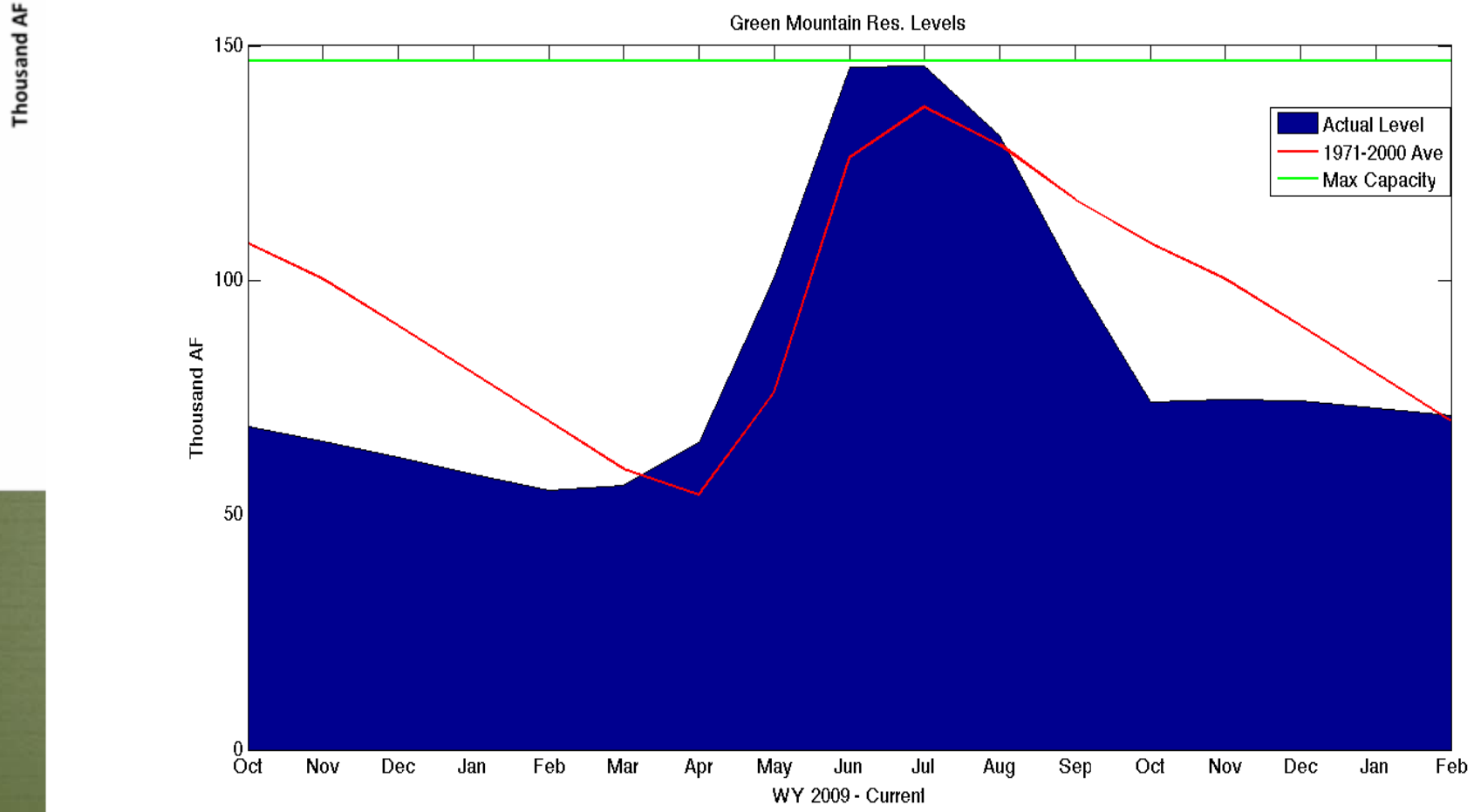
Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

USGS science for a changing world

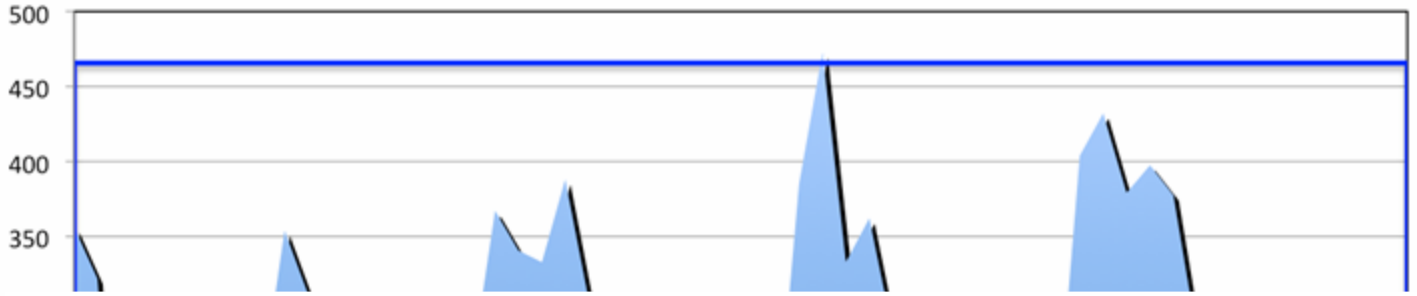
Reservoir Update

Green Mountain February Reservoir Storage

Max Capacity

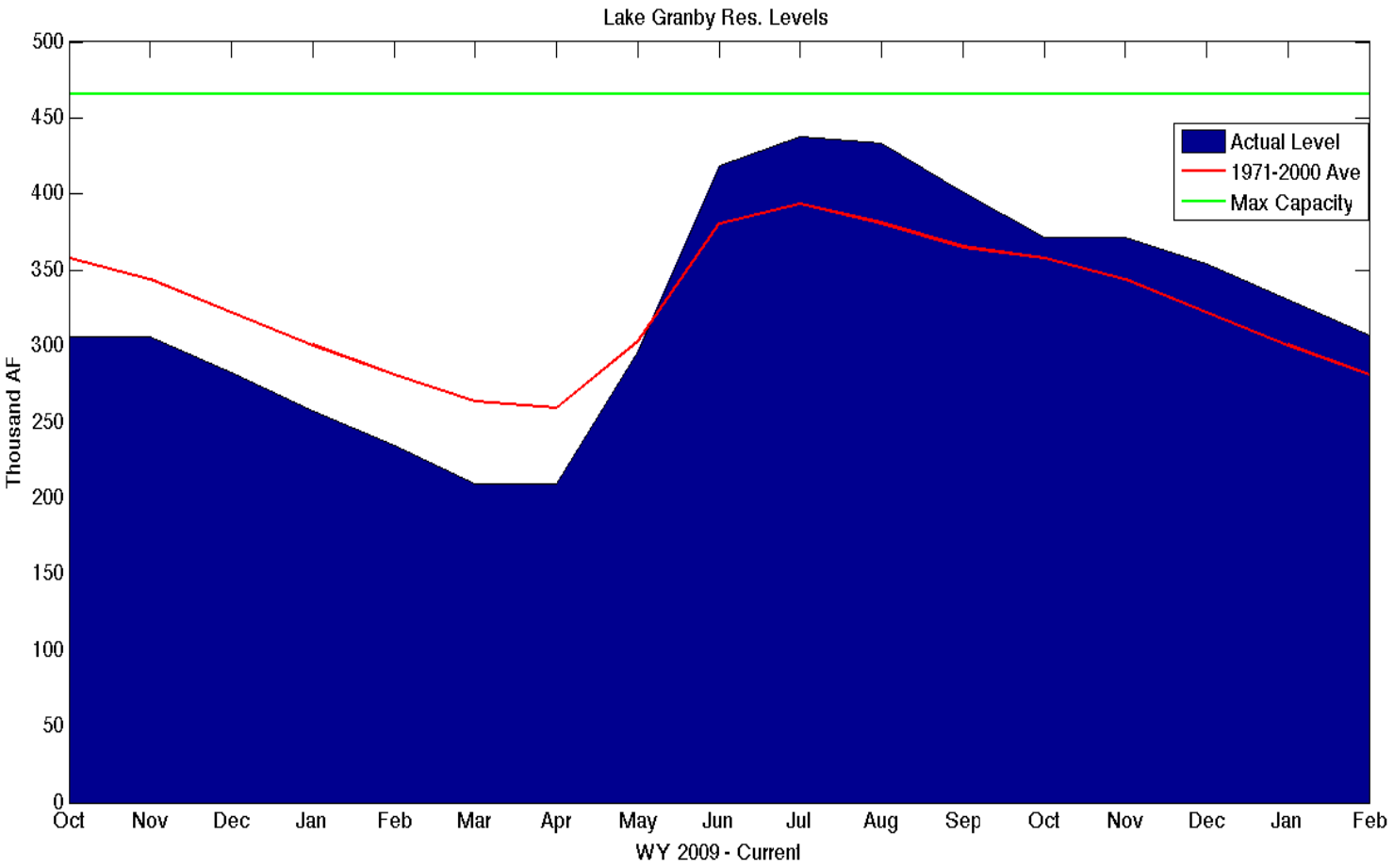


Lake Granby February Reservoir Storage

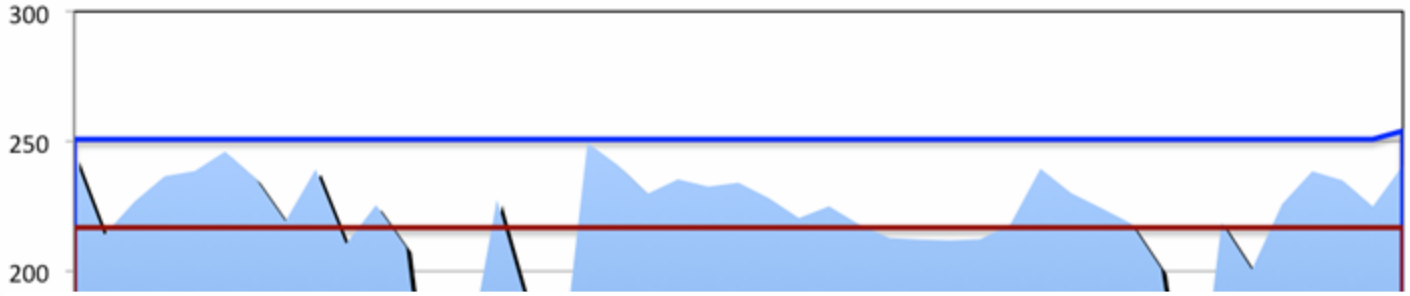


Max Capacity

Thousand AF

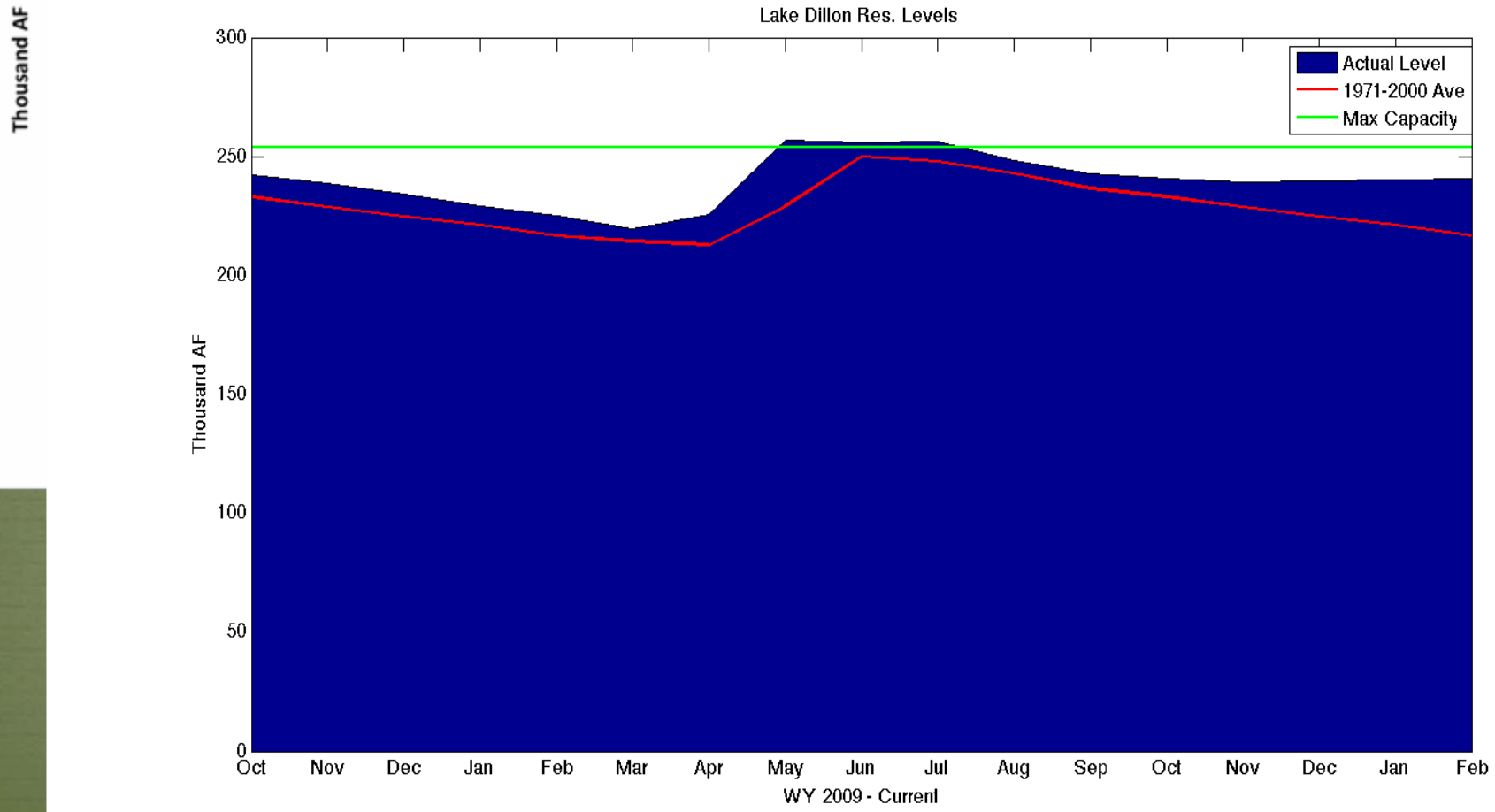


Lake Dillon February Reservoir Storage

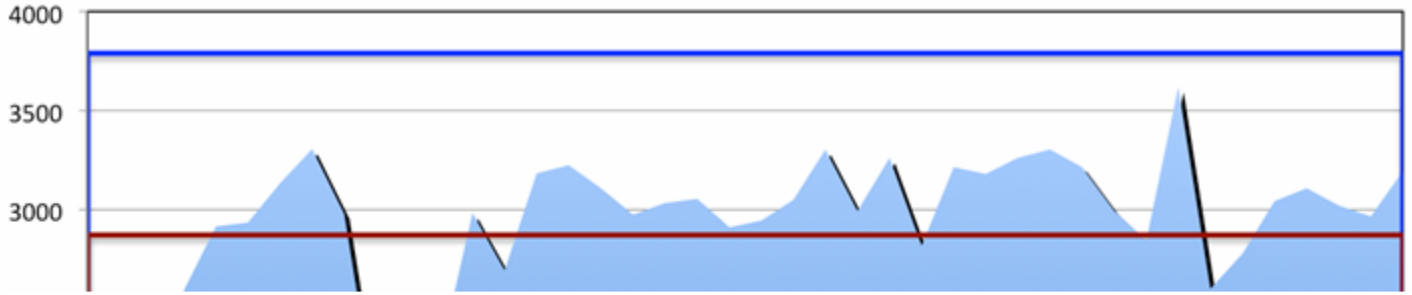


Max Capacity

1971-2000 Average



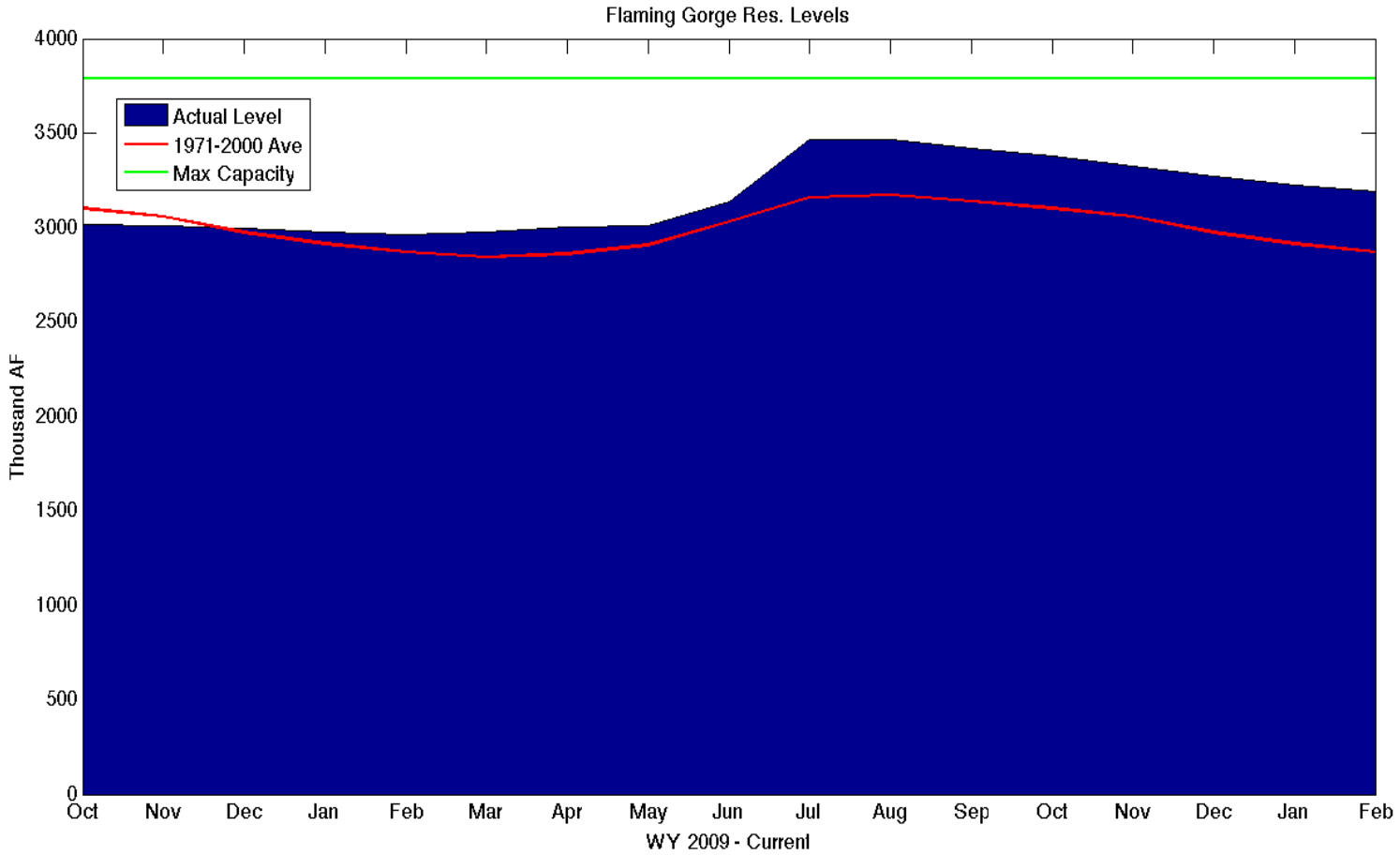
Flaming Gorge February Reservoir Storage



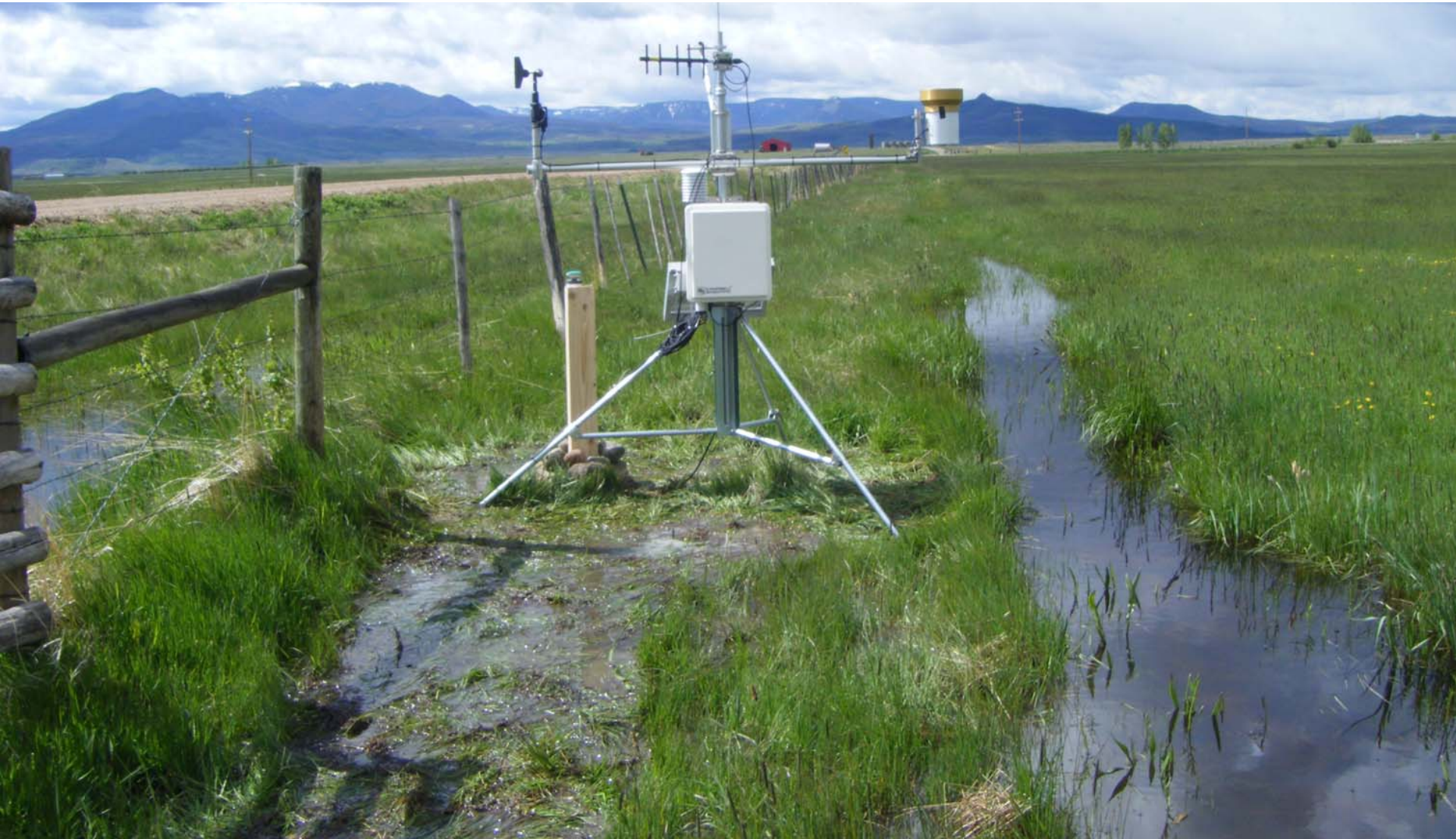
Max Capacity

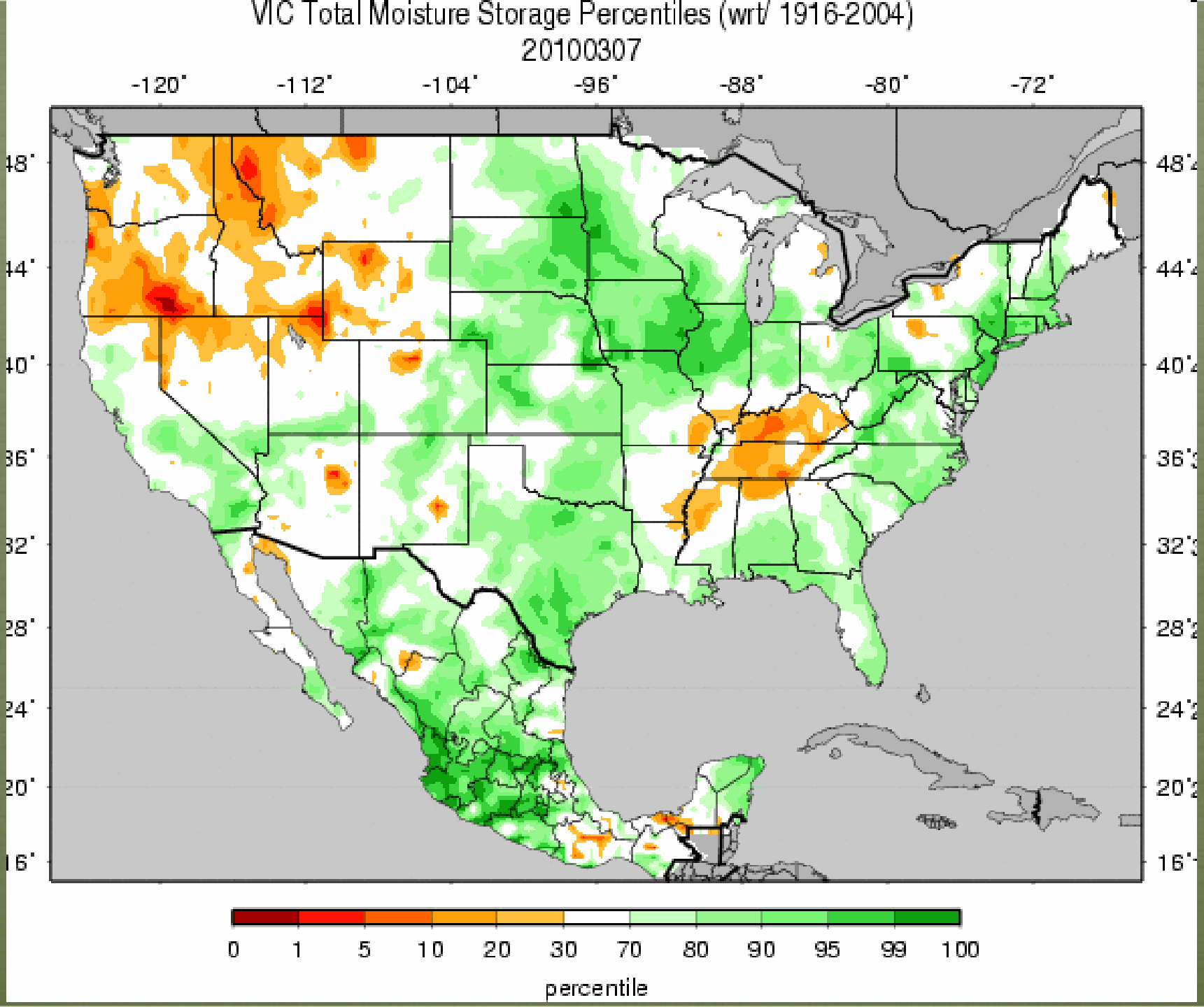
1971-2000 Average

Thousand AF



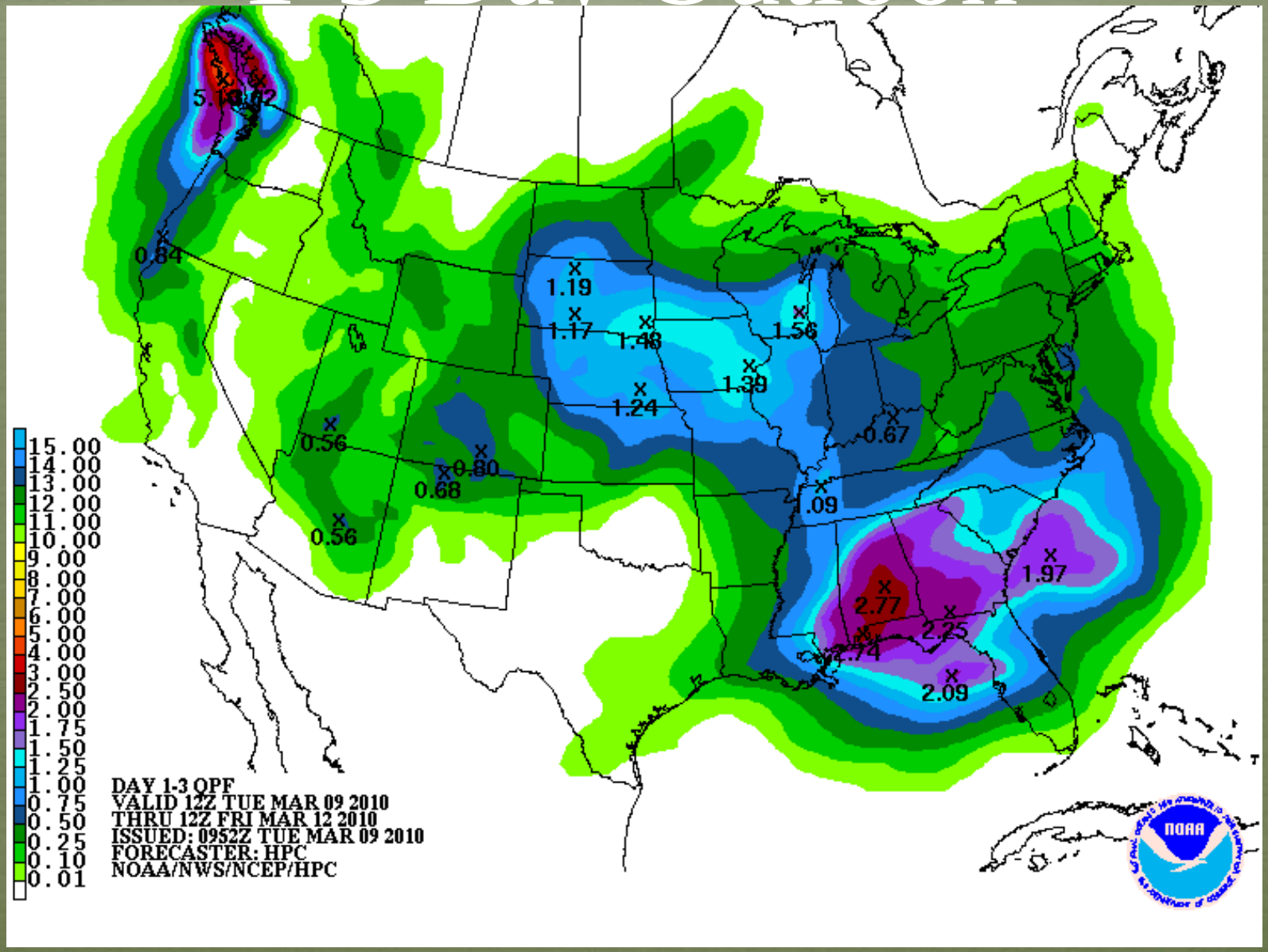
Water Demand




VIC Total Moisture Storage Percentiles (wrt/ 1916-2004)
20100307
-120°
-112°
-104°
-96°
-88°
-80°
-72°
48°
44°
40°
36°
32°
28°
24°
20°
16°
0
1
5
10
20
30
70
80
90
95
99
100
percentile

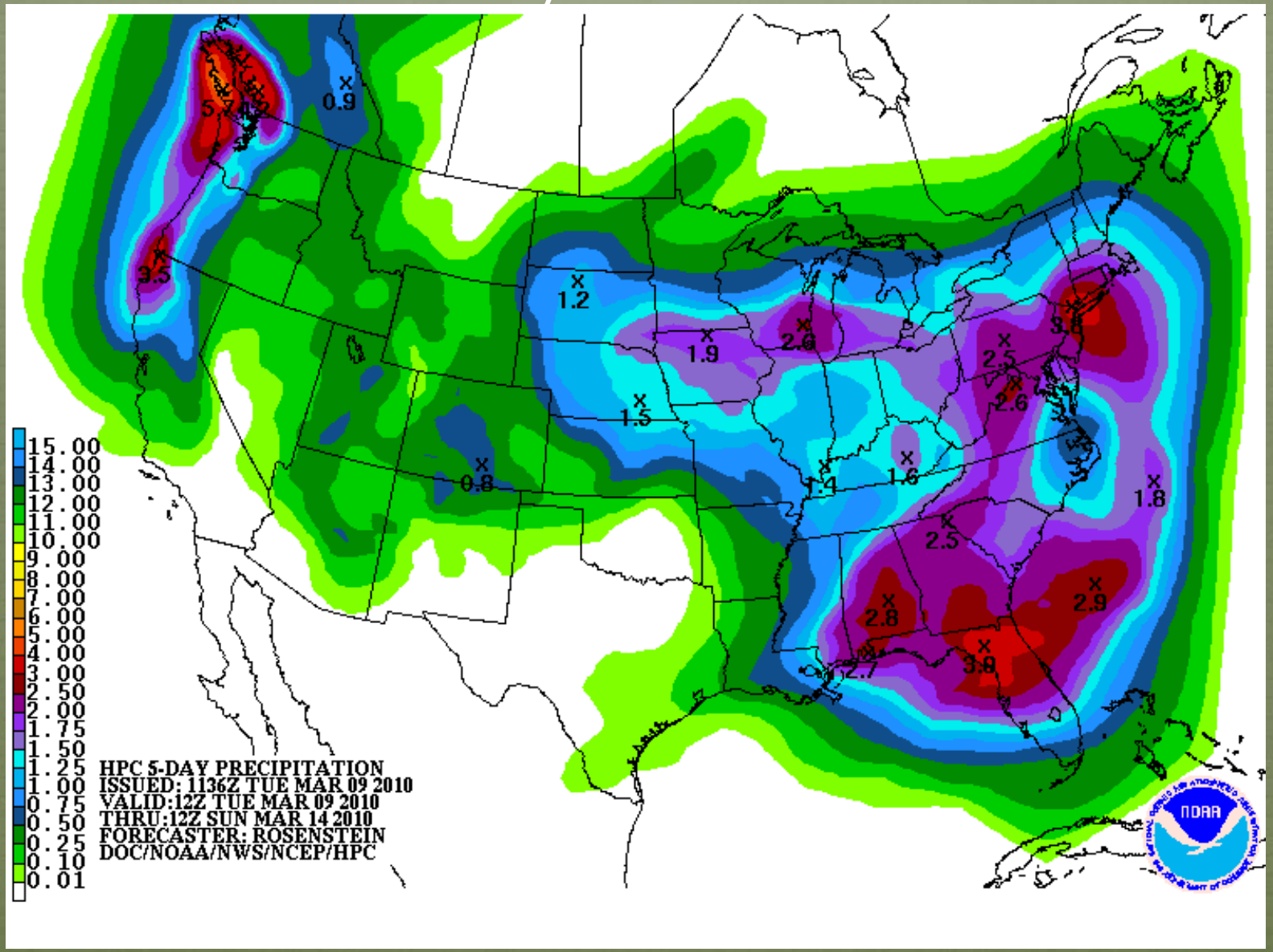
Precipitation Forecast

1-3 Day Outlook



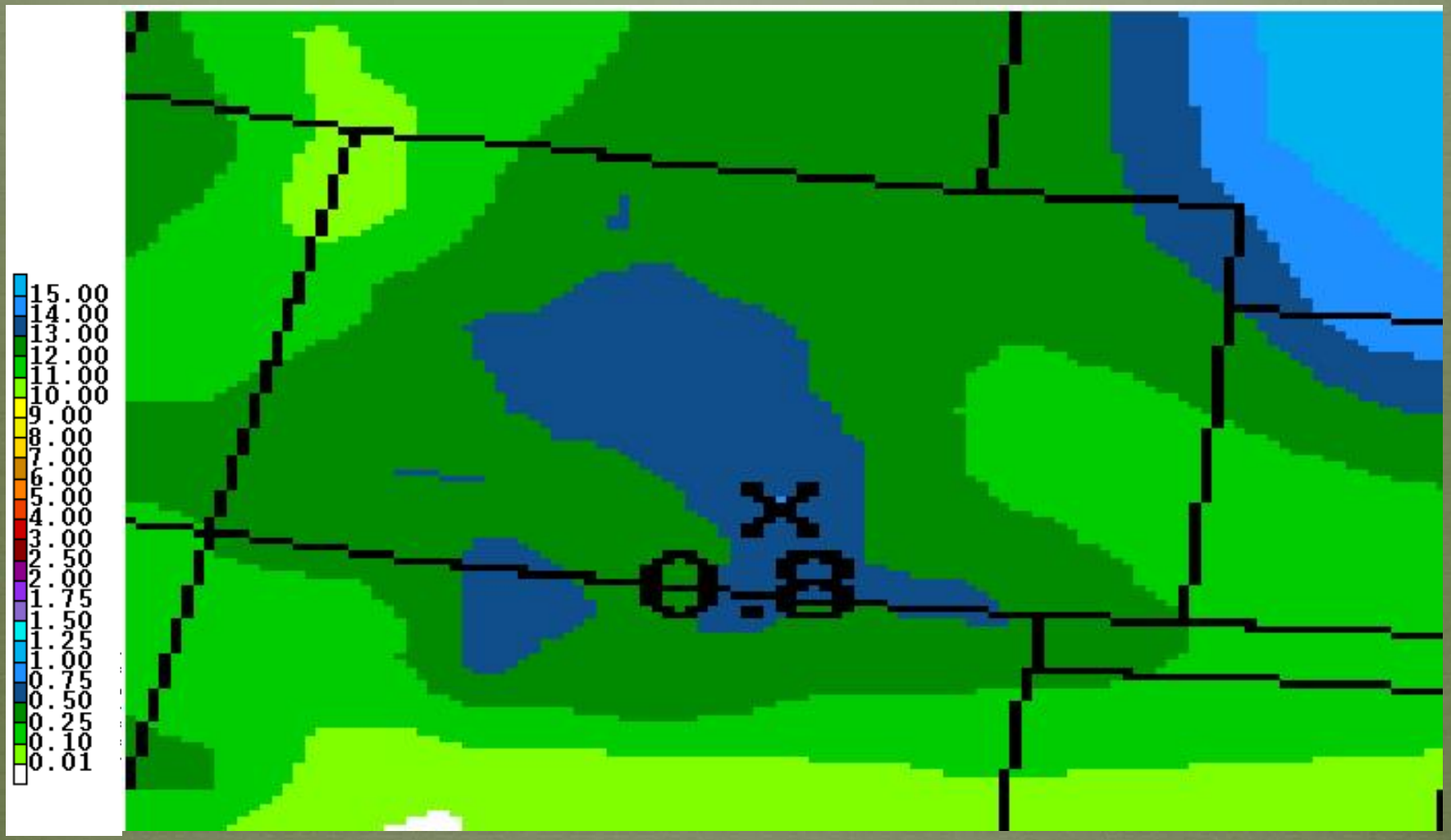
http://www.hpc.ncep.noaa.gov/

5 Day Outlook



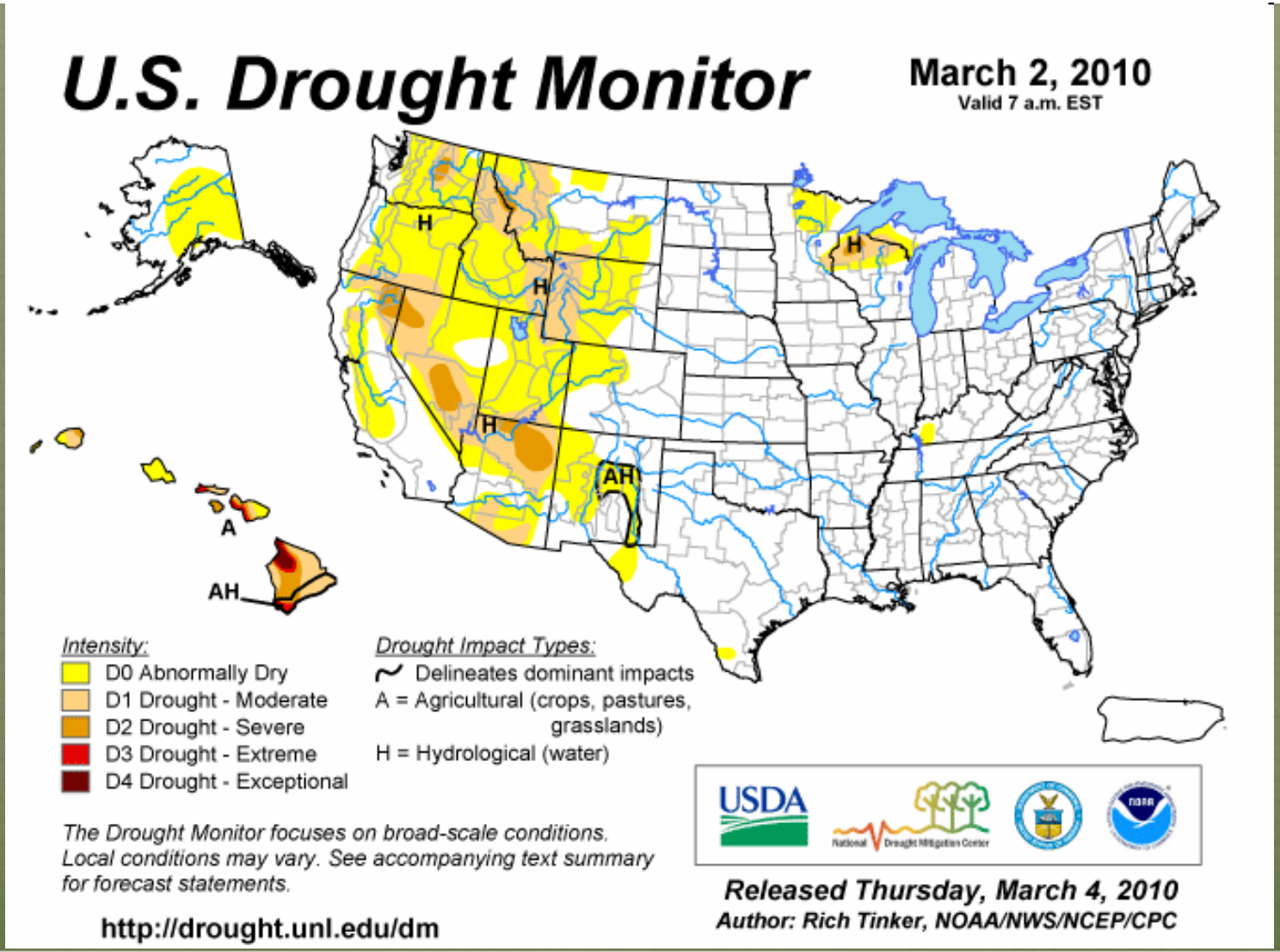
http://www.hpc.ncep.noaa.gov/

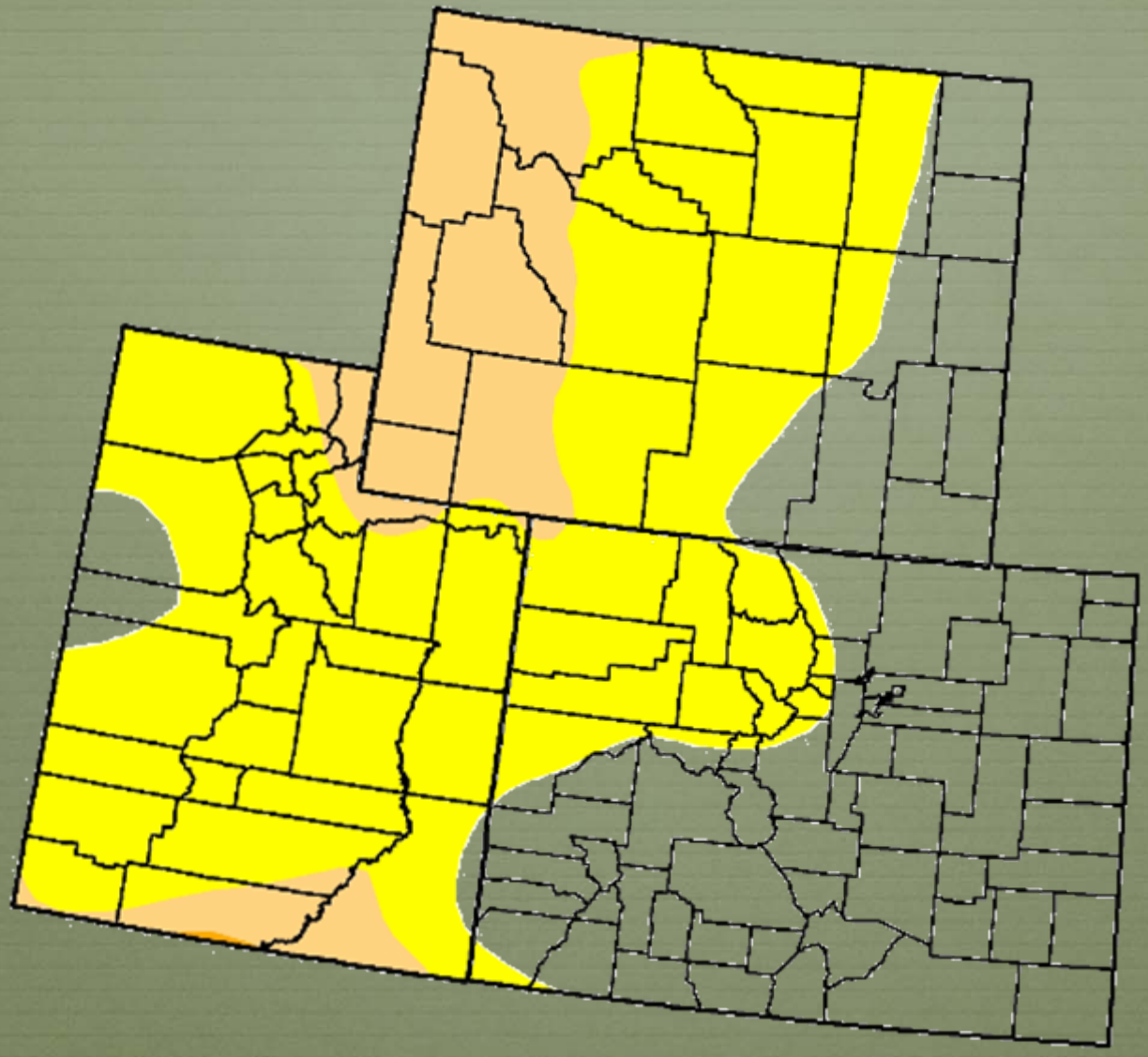
5 Day Outlook Colorado



http://www.hpc.ncep.noaa.gov/

Recommendations





INFO

For more information

Summary

- Summary of today's weekly precipitation and water supply assessment for Colorado and the Upper Colorado River Basin:

  The largest amounts of precipitation for last week fell around Jackson and Routt Counties in the north, along the southeastern plains of Colorado, and around Mesa (CO) and Grand (UT) Counties. Snowpack amounts continue to decrease for western WY, but appear to be holding fairly steady in the affected regions of the Yampa-White and Colorado basins. The most recent reservoir updates show the reservoirs in the Colorado and Green River basins as staying steady and above average. Soil moisture maps show the driest soils to be near the headwaters of the Colorado River. However, soils along the plains (where farmland prevails) are near average to wetter than average, which will reduce the demand for irrigation waters from the western slope, but could cause the potential for springtime flooding.

  In the next 1 to 3 days, another storm will move through the area bringing modest amounts of precipitation to the mountains with higher amounts in the southern plains and the Rio Grande basin. Although El Nino conditions still persist, it is not bringing the normal wetter than normal moisture to the areas that need it most. With a good possibility of dry conditions after the next system moves out of the area, the Colorado and Yampa-White basins should be closely monitored, as degradation for the Drought Monitor could be warranted.

  With little changes in the Year-to-Date percent of average snowpacks for areas in D0, the consensus of the webinar/conference call is that no degradations or introductions of more D1 are needed this week. However, it was pointed out that east of the Continental Divide, precipitation percent of normals are near 100%, and the D0 perhaps extends too far east. Therefore, it will be proposed to the DM author that the D0 line be taken out of the majority of Clear Creek and Gilpin Counties and only extend a few miles east of the Divide.