

Winter 2010



NIDIS - UPPER COLORADO BASIN PILOT PROJECT

Weekly Climate, Water & Drought Assessment

Today's Agenda

- Background Information
- Assessment of current water conditions
- Precipitation Forecast
- Recommendations for Drought Monitor

B a c k g r o u n d

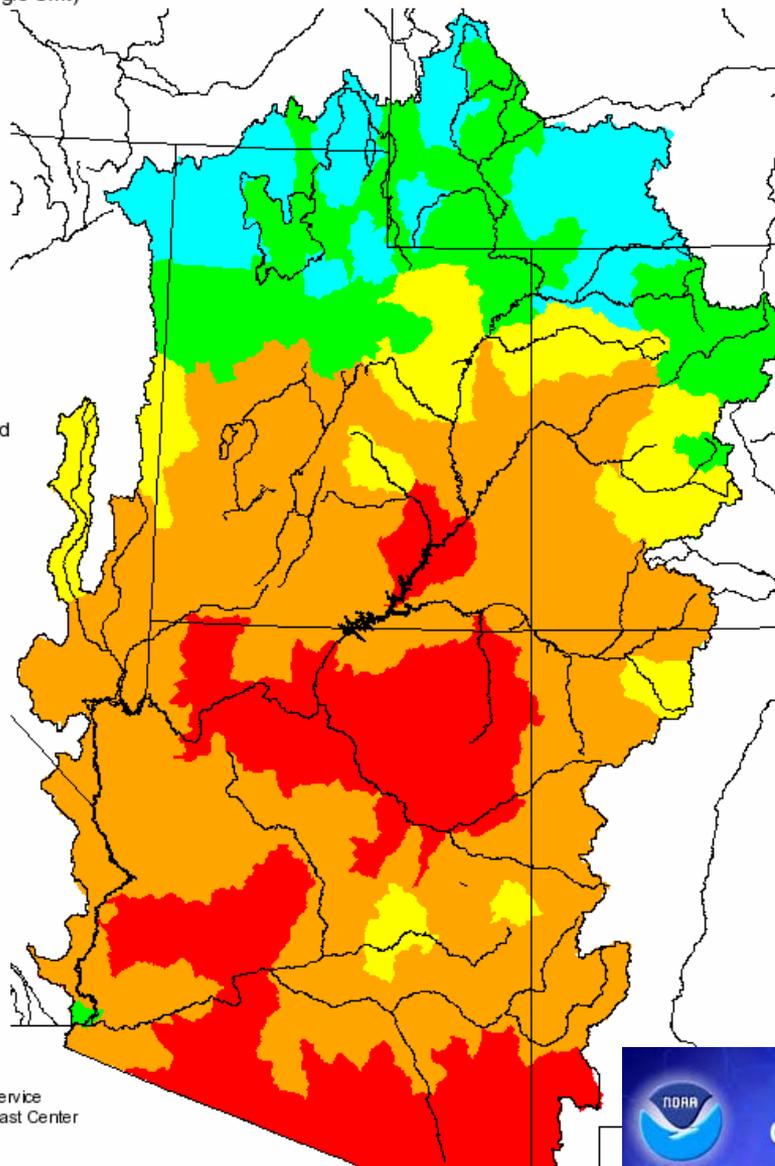
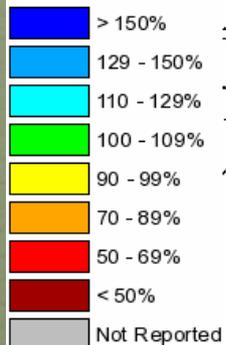


WY 2009 Precipitation

Seasonal Precipitation, October 2008 - September 2009

(Averaged by Hydrologic Unit)

% Average



Prepared by
NOAA, National Weather Service
Colorado Basin River Forecast Center
Salt Lake City, Utah
www.cbifc.noaa.gov

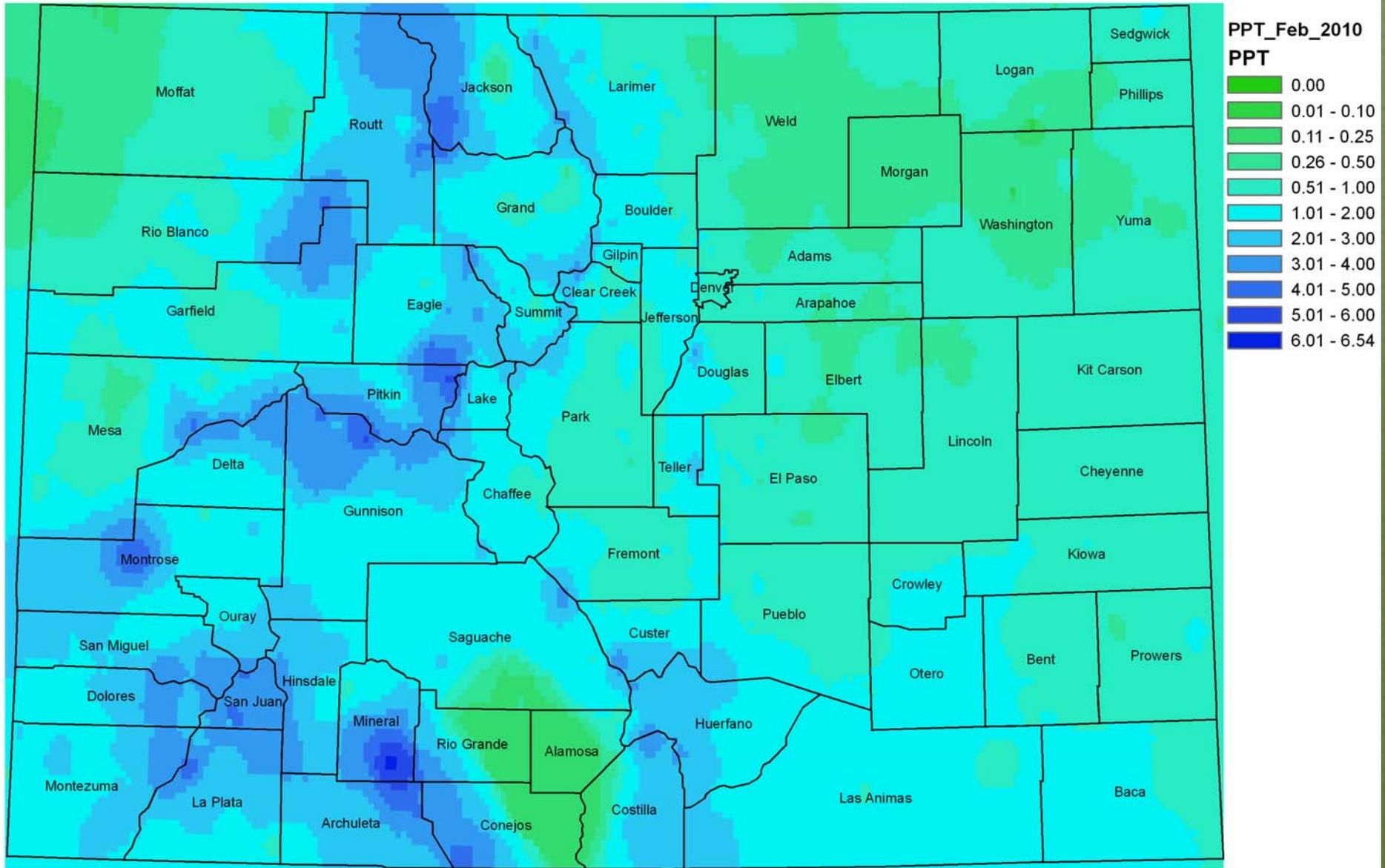


NATIONAL WEATHER SERVICE
Colorado Basin River Forecast Center

Precipitation/Snowpack Update



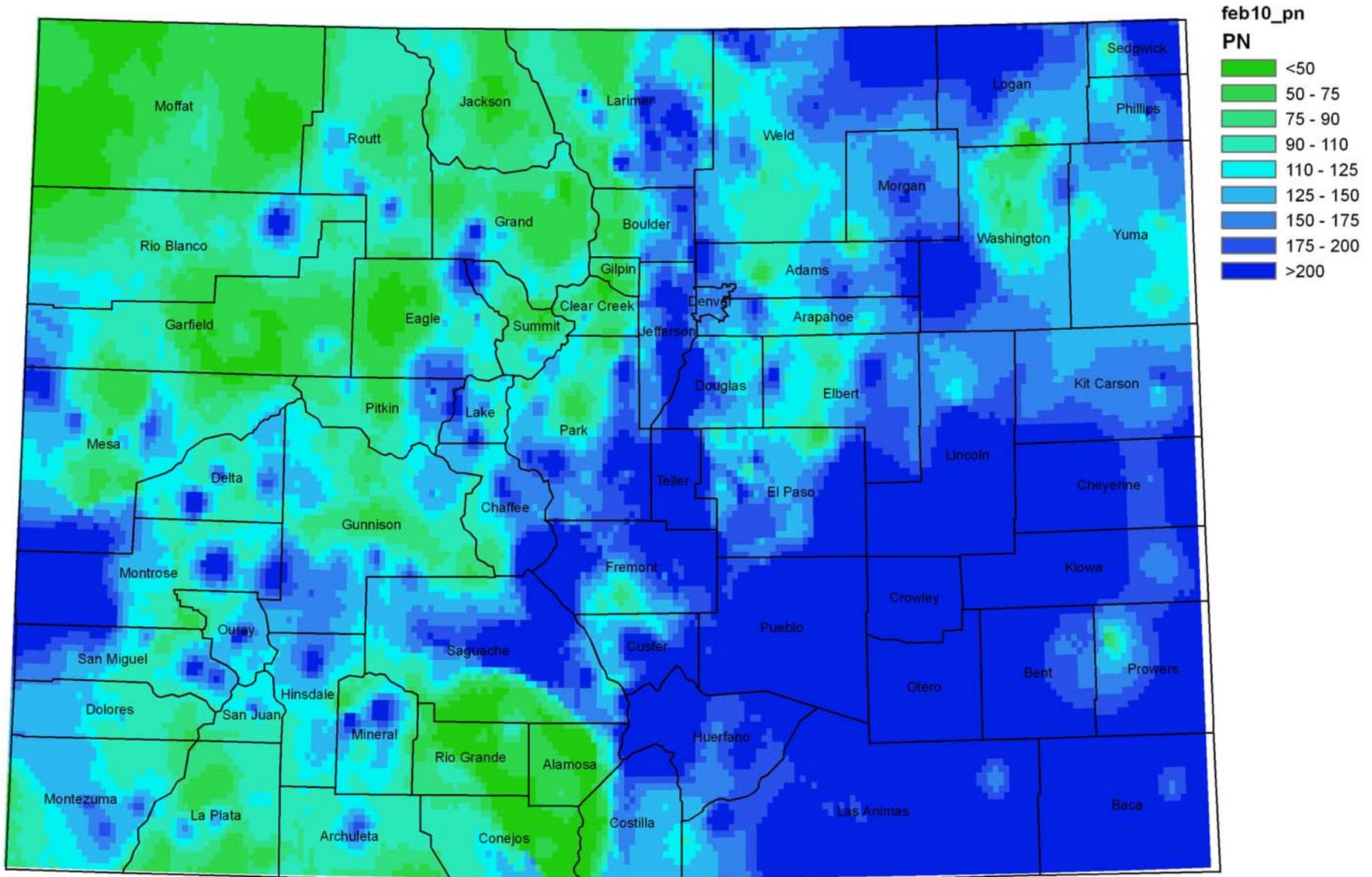
Colorado Precipitation (in) February 2010



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

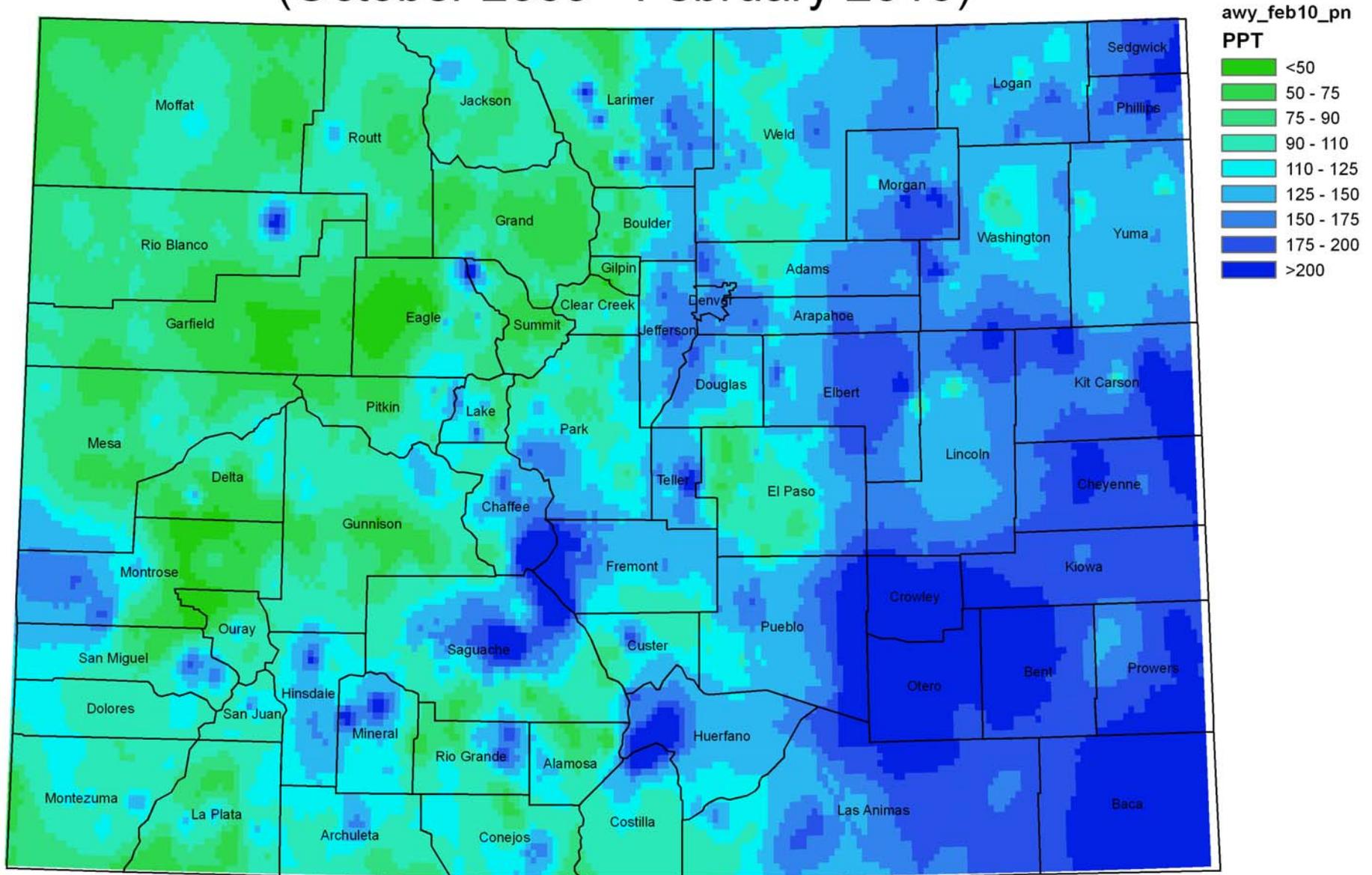
*Summer only

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)



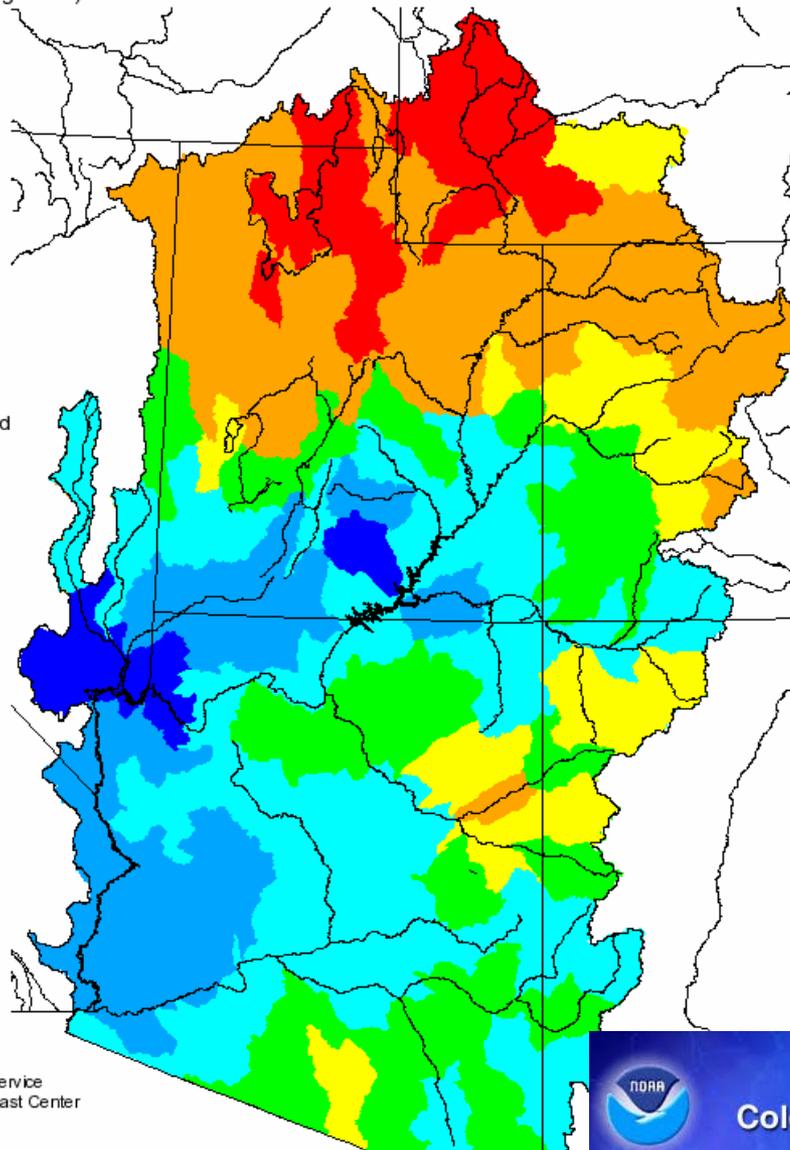
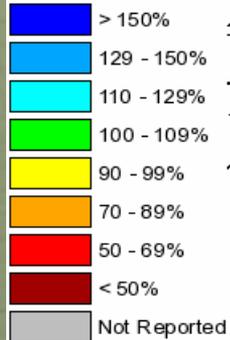
Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

WY 2010 Precipitation

Seasonal Precipitation, October 2009 - February 2010

(Averaged by Hydrologic Unit)

% Average



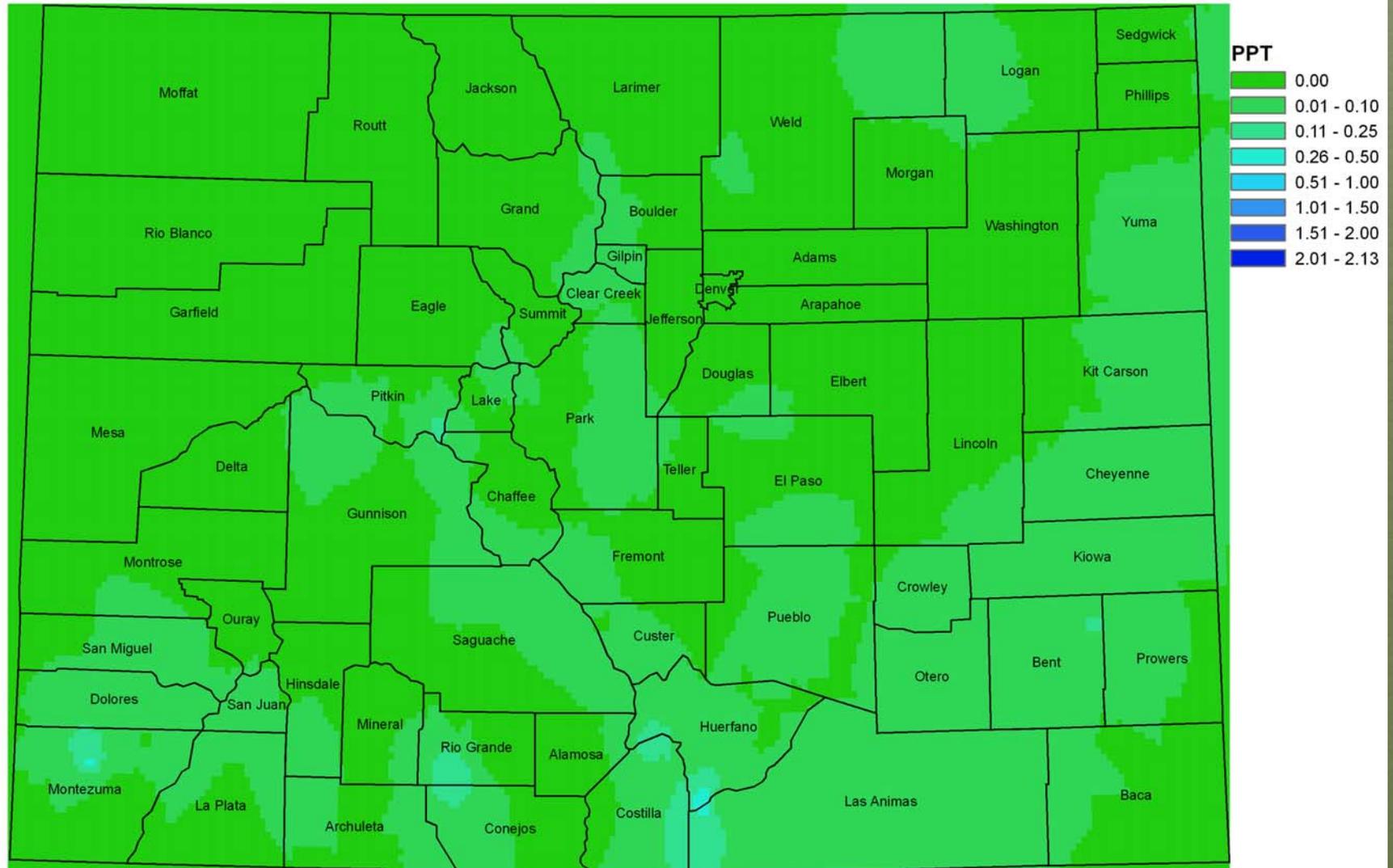
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Colorado Basin River Forecast Center

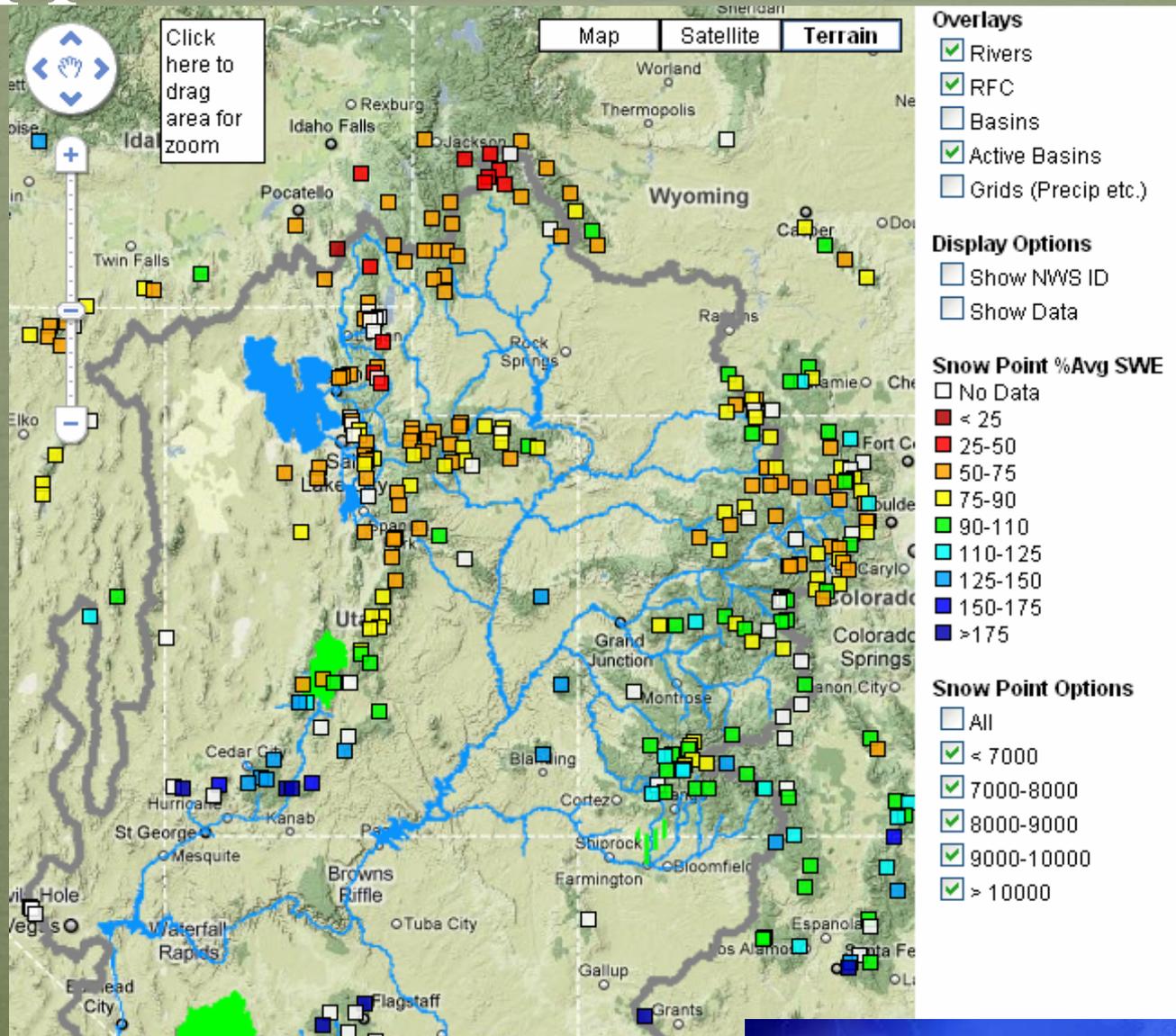
7 Day Precipitation Animation 1-7 March 2010

Colorado Precipitation (in) 1 March 2010

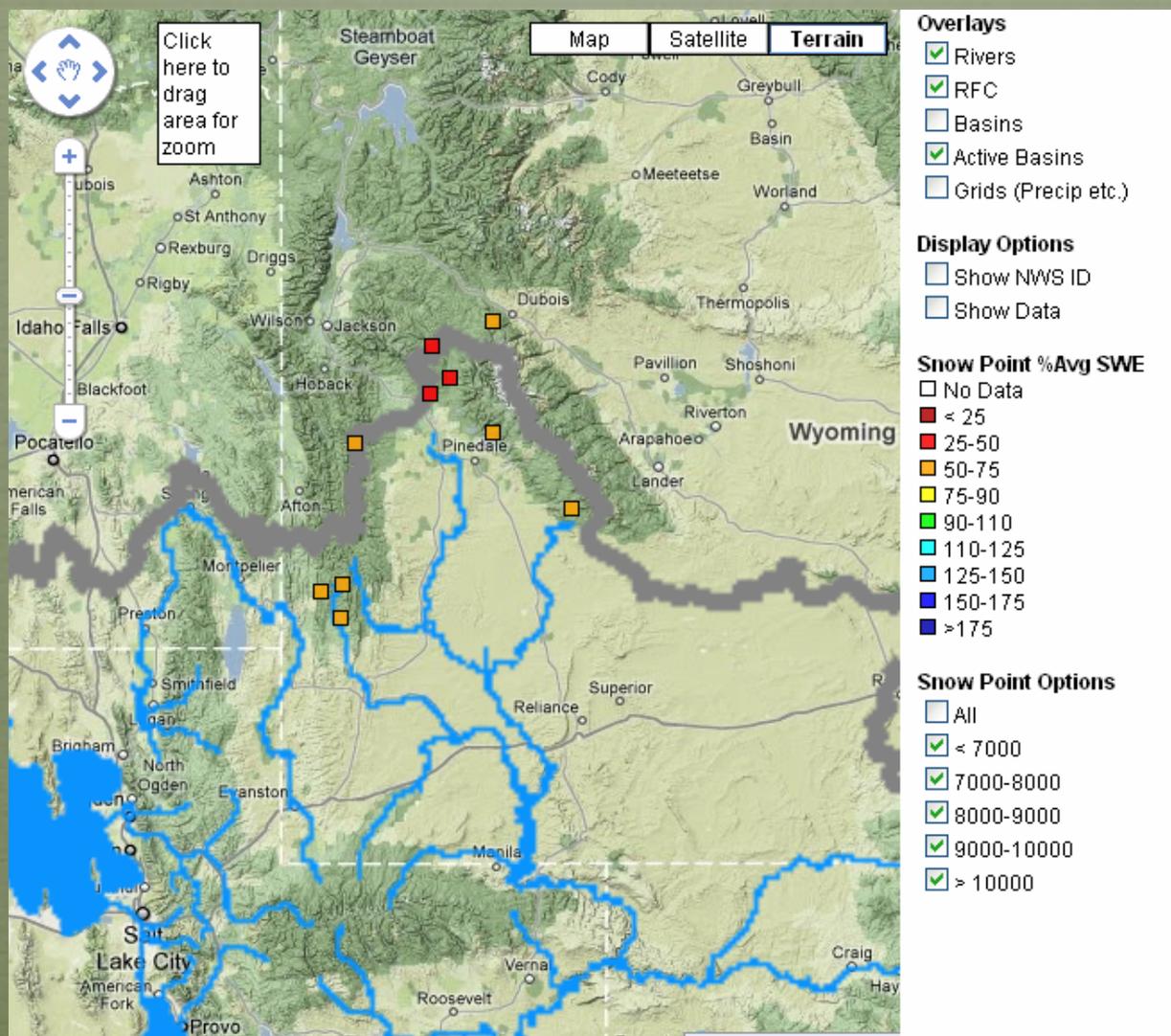


Produced by the Colorado Climate Center utilizing Snotel, NWS, CoCoRaHS and CoAgMet* Preliminary Precipitation Data
Analysis: Inverse Distance Weighting
*Summer only

Upper Colorado River Basin

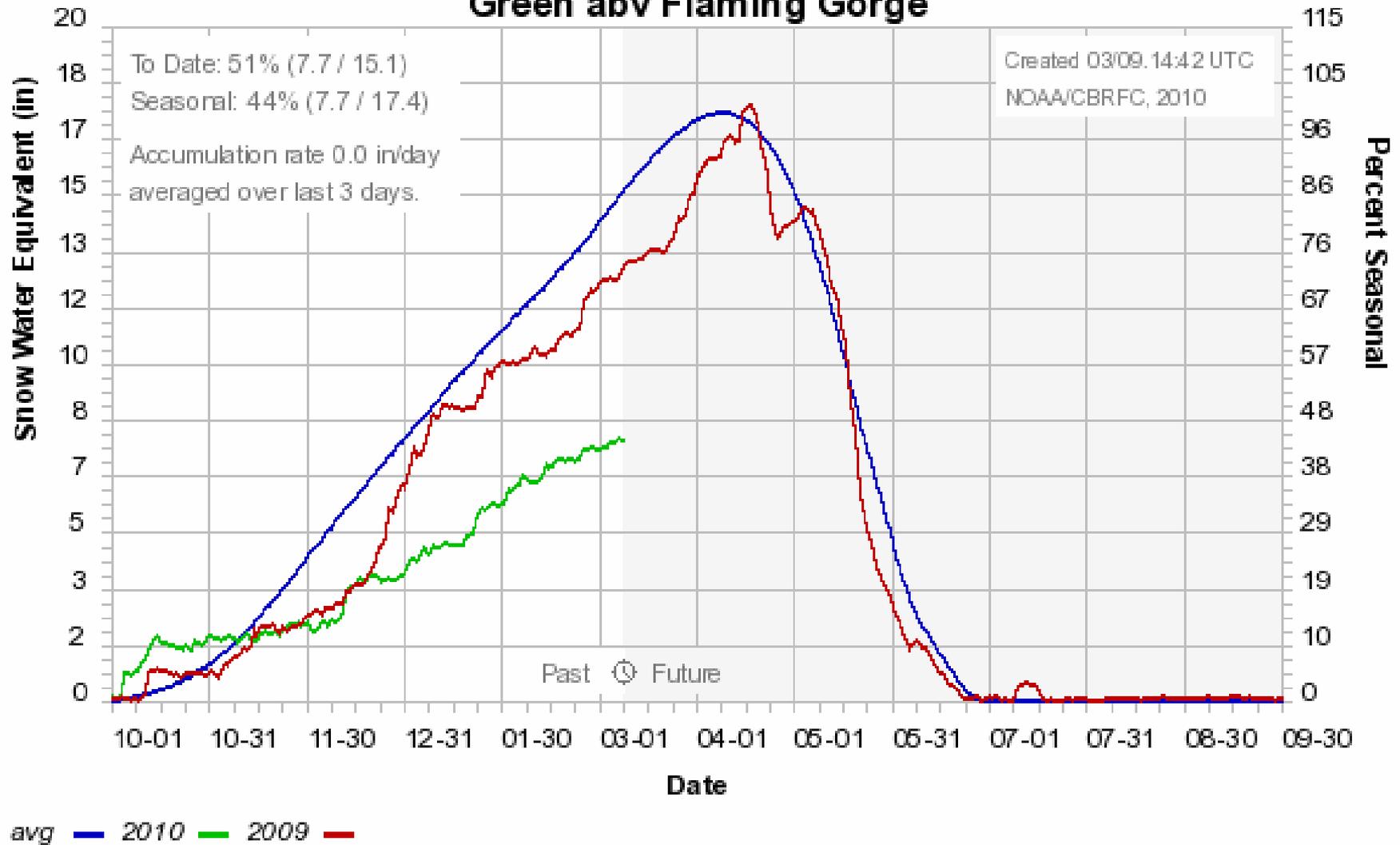


Green River Basin above Flaming Gorge



Colorado Basin River Forecast Center

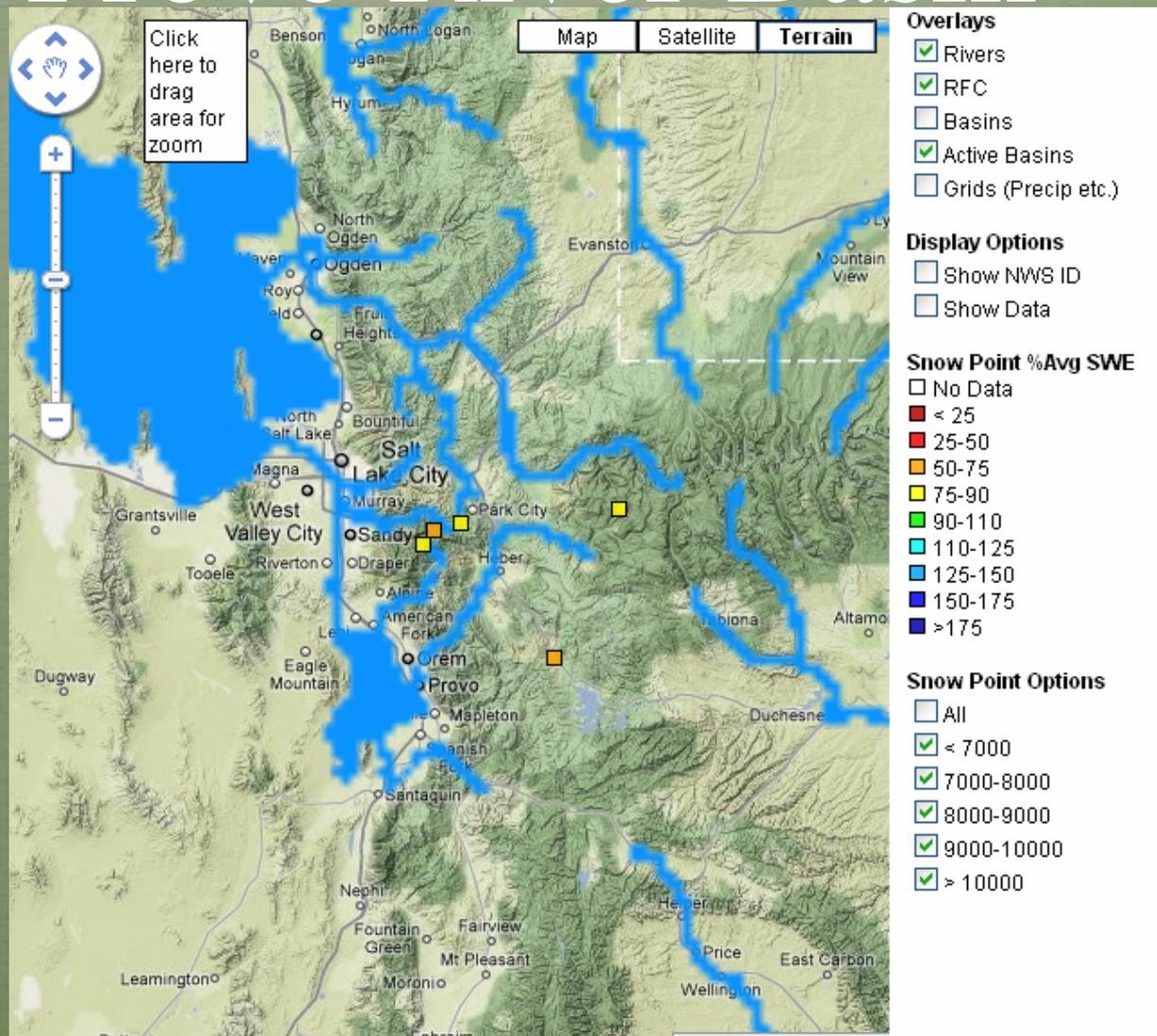
Green abv Flaming Gorge



Basin Snowpack: 51%



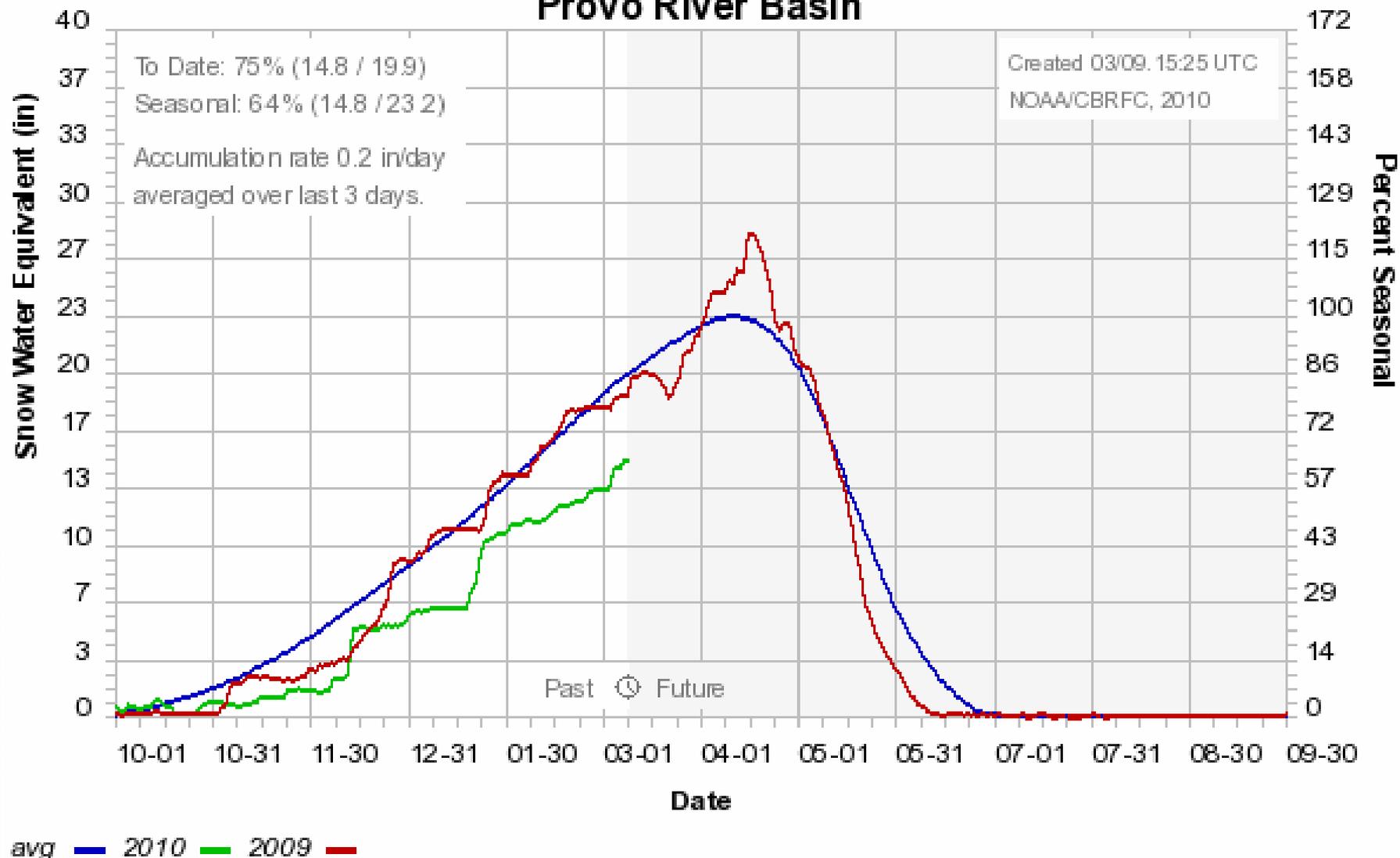
Provo River Basin



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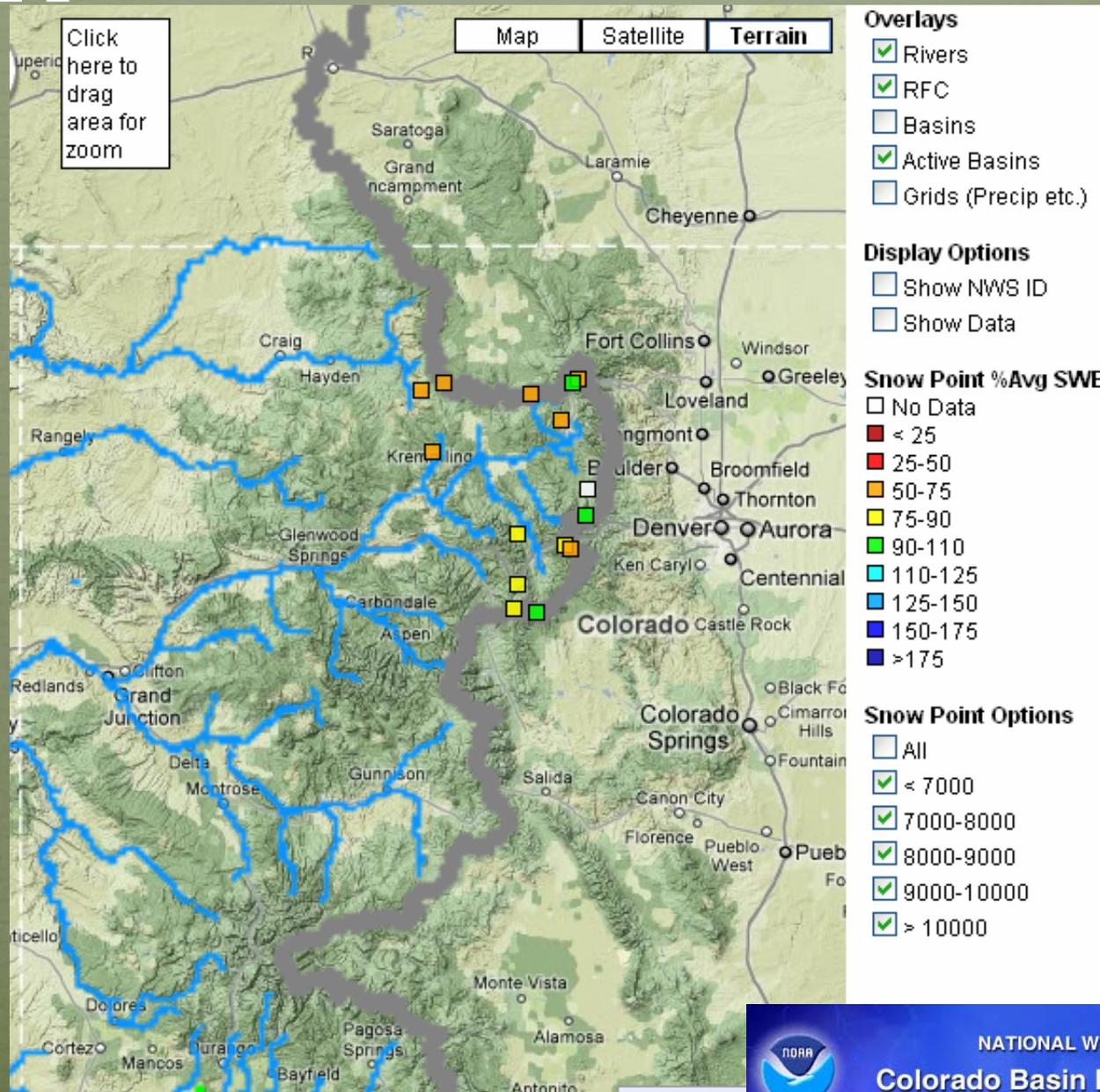
Colorado Basin River Forecast Center

Colorado Basin River Forecast Center Provo River Basin



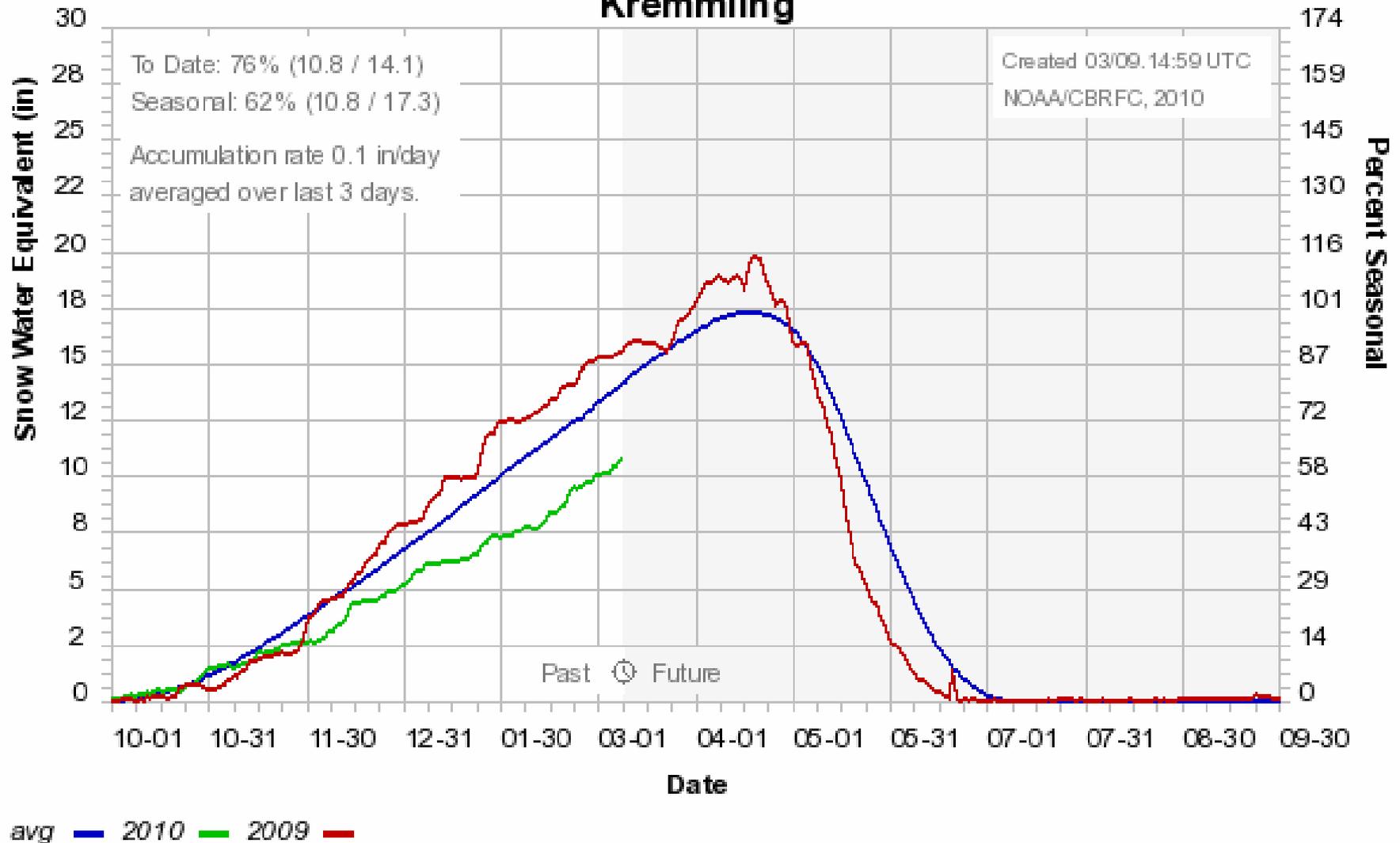
Basin snowpack: 75%

Upper Colorado above Kremmling



Colorado Basin River Forecast Center

Kremmling

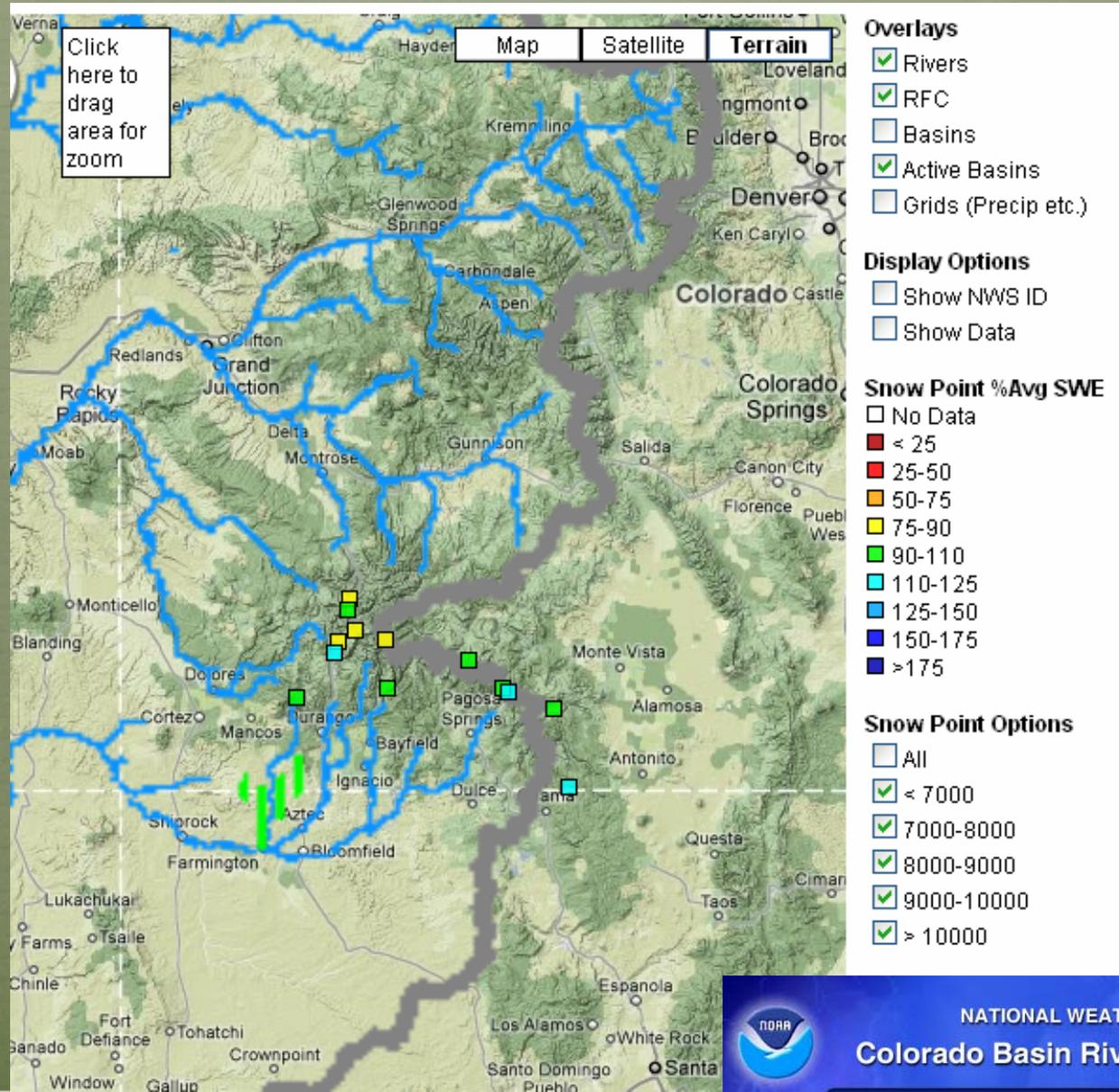


Basin Snowpack: 76%

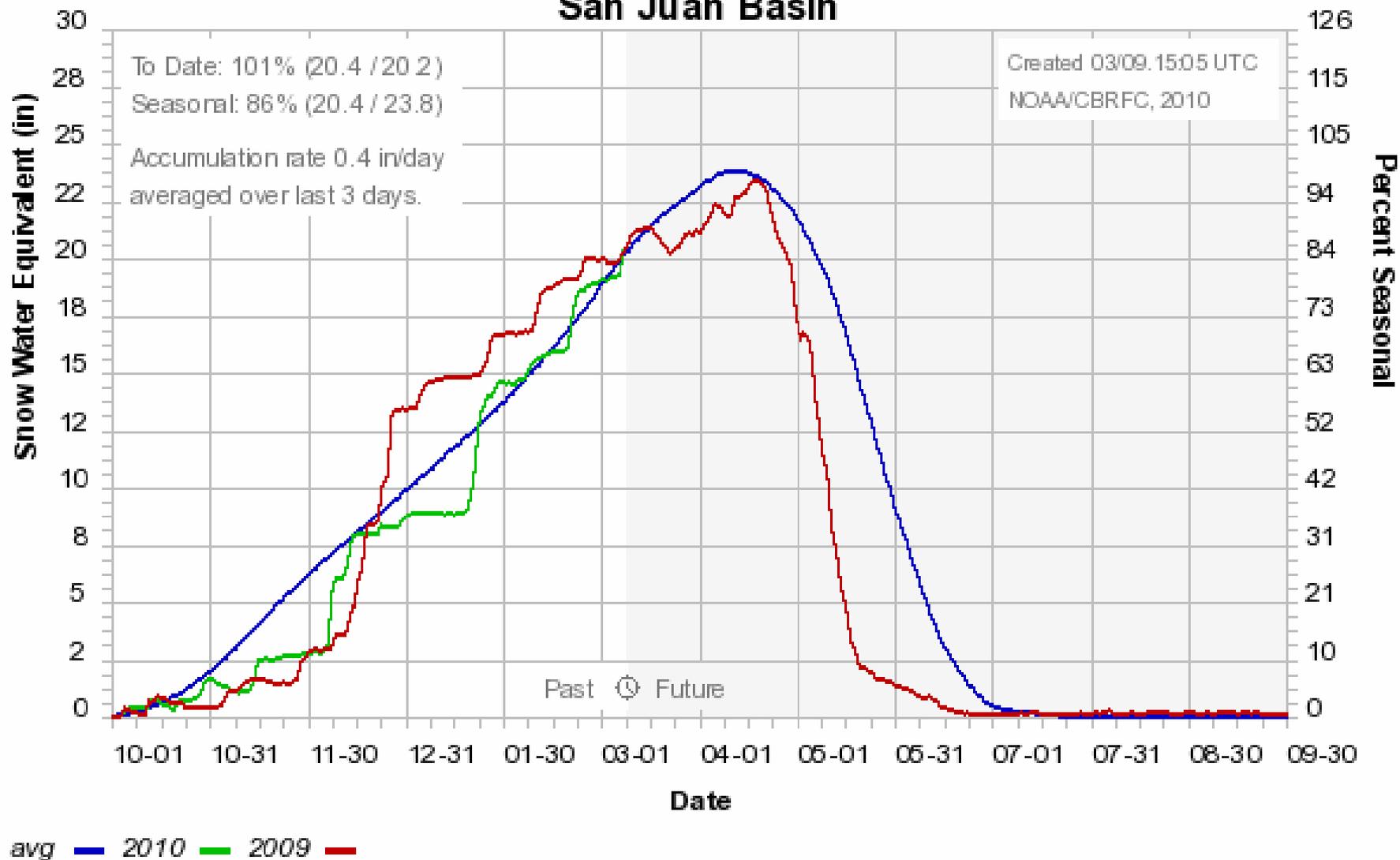


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San Juan Basin



Colorado Basin River Forecast Center San Juan Basin

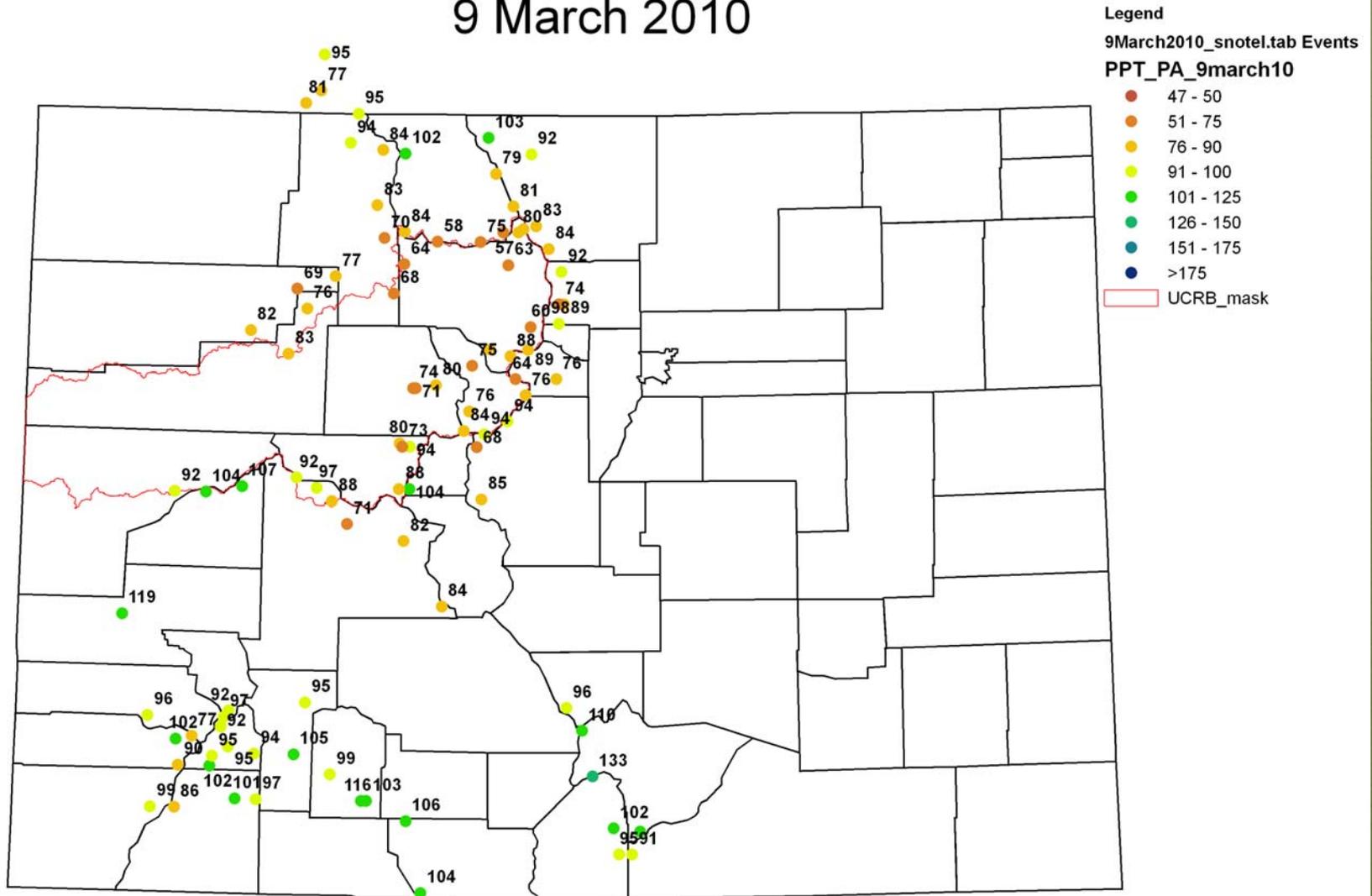


Snowpack: 101%



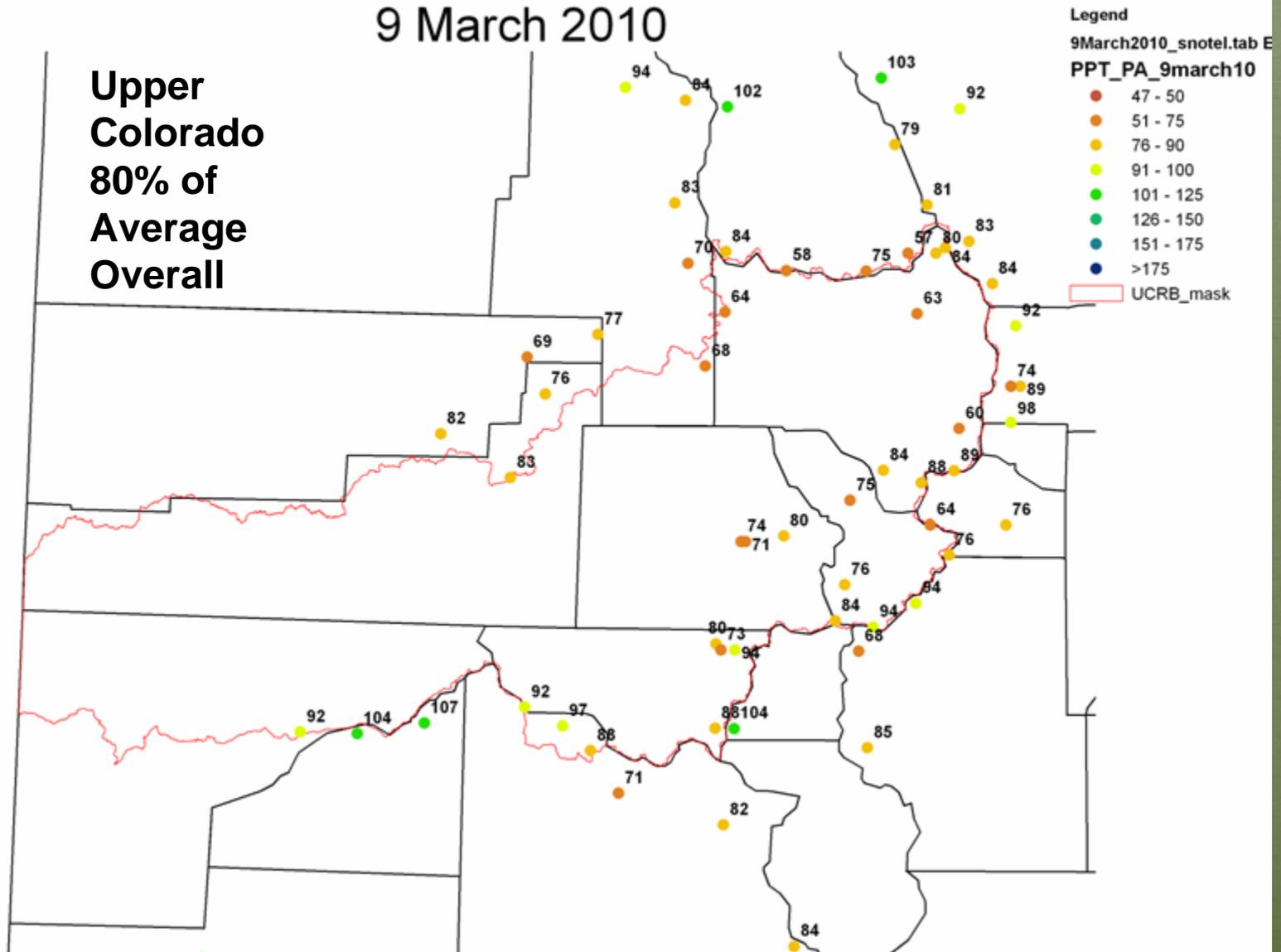
Snotel WYTD Precipitation % Average

Snotel WYTD Precipitation as Percent of Average 9 March 2010



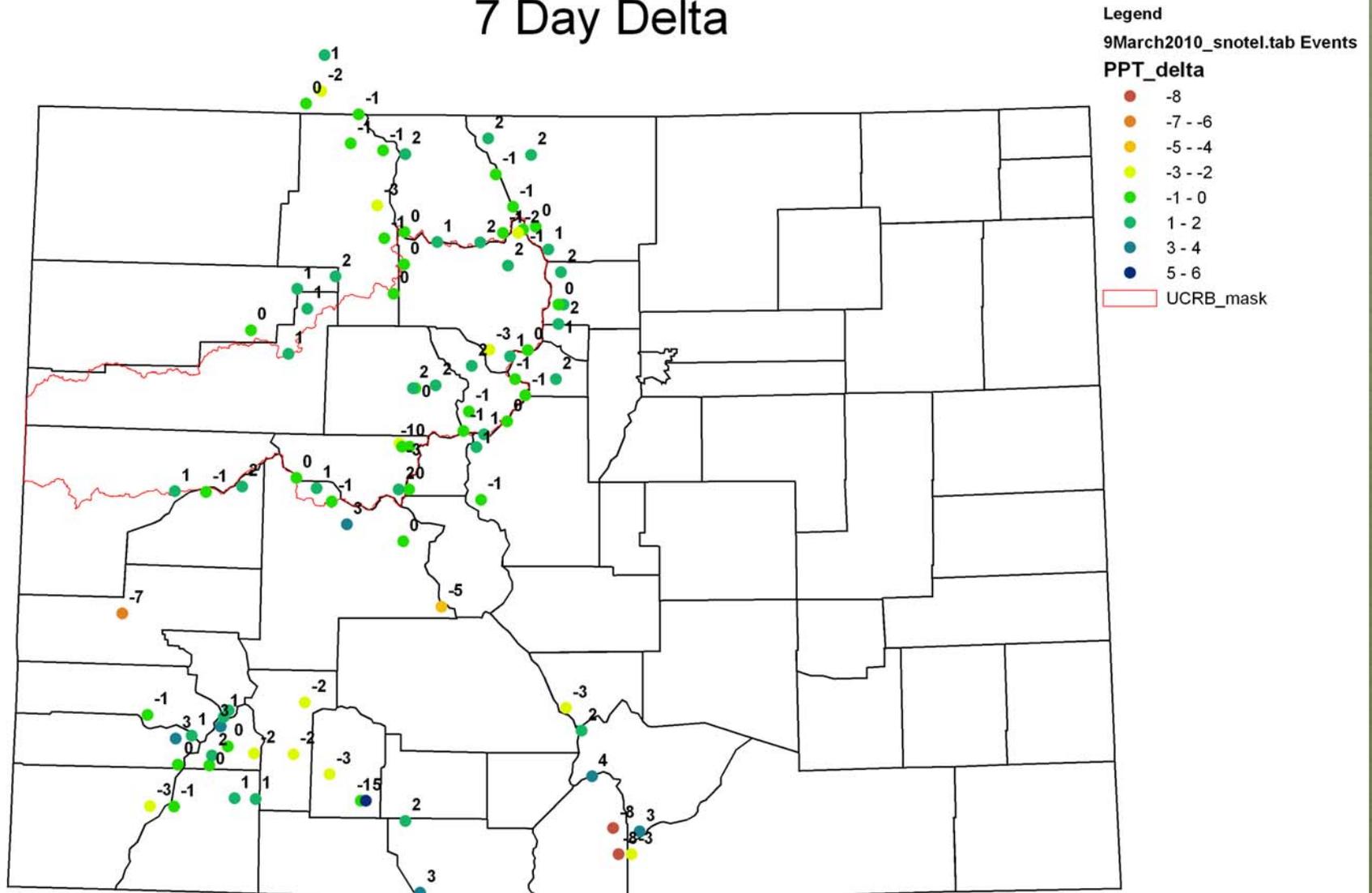
Snotel WYTD Precipitation % Average

Snotel WYTD Precipitation as Percent of Average 9 March 2010



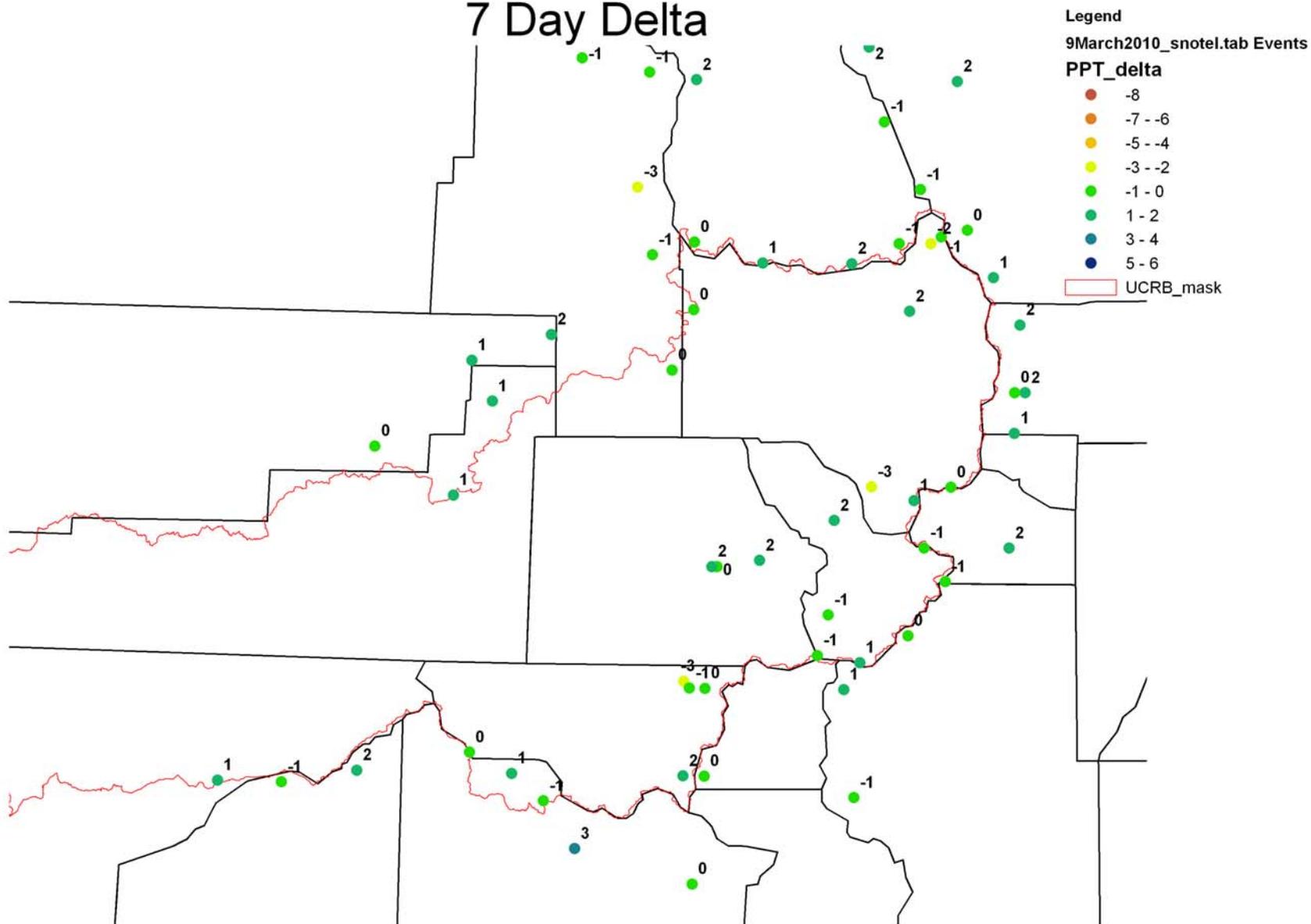
Snotel WYTD Precipitation % Average 1 Week Change

Snotel WYTD Precipitation as Percent of Average 7 Day Delta



Snotel WYTD Precipitation % Average 1 Week Change

Snotel WYTD Precipitation as Percent of Average 7 Day Delta

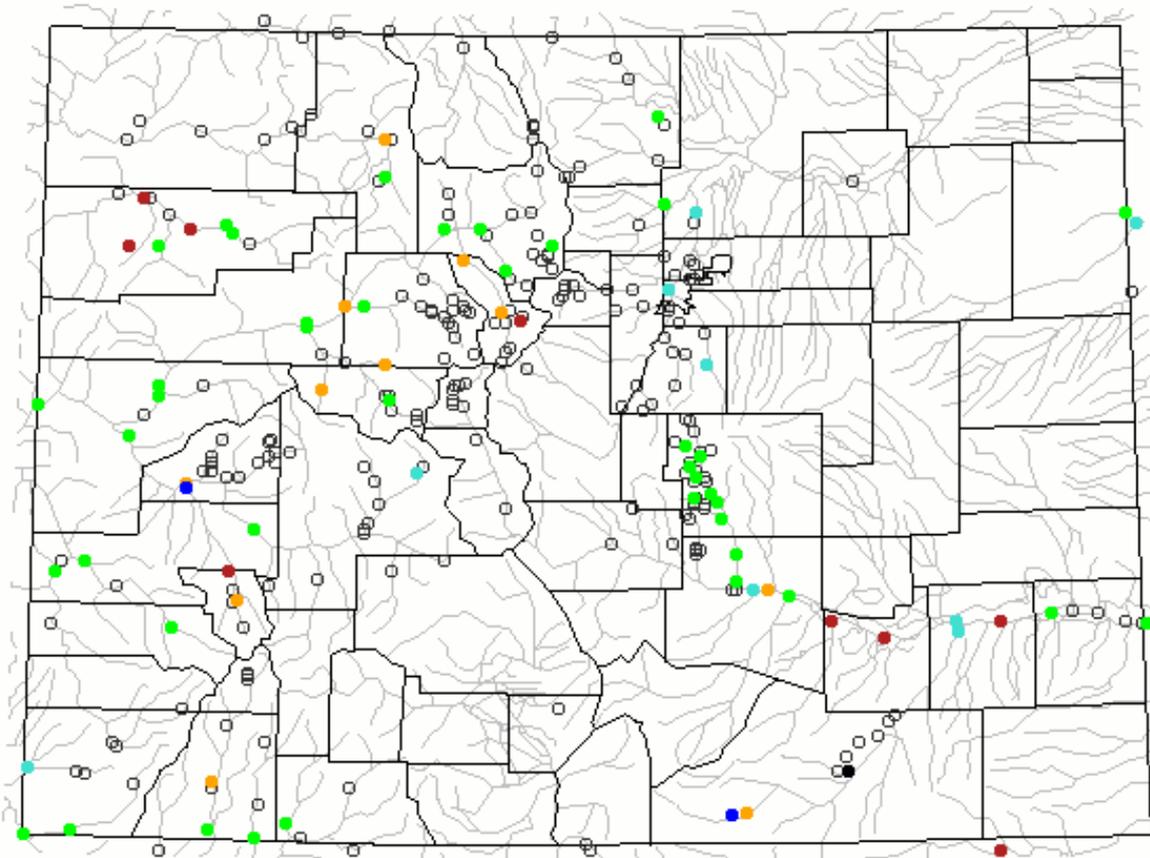


Streamflow Update



Streamflow 9 March 2010

Tuesday, March 09, 2010 10:30ET



Explanation - Percentile classes

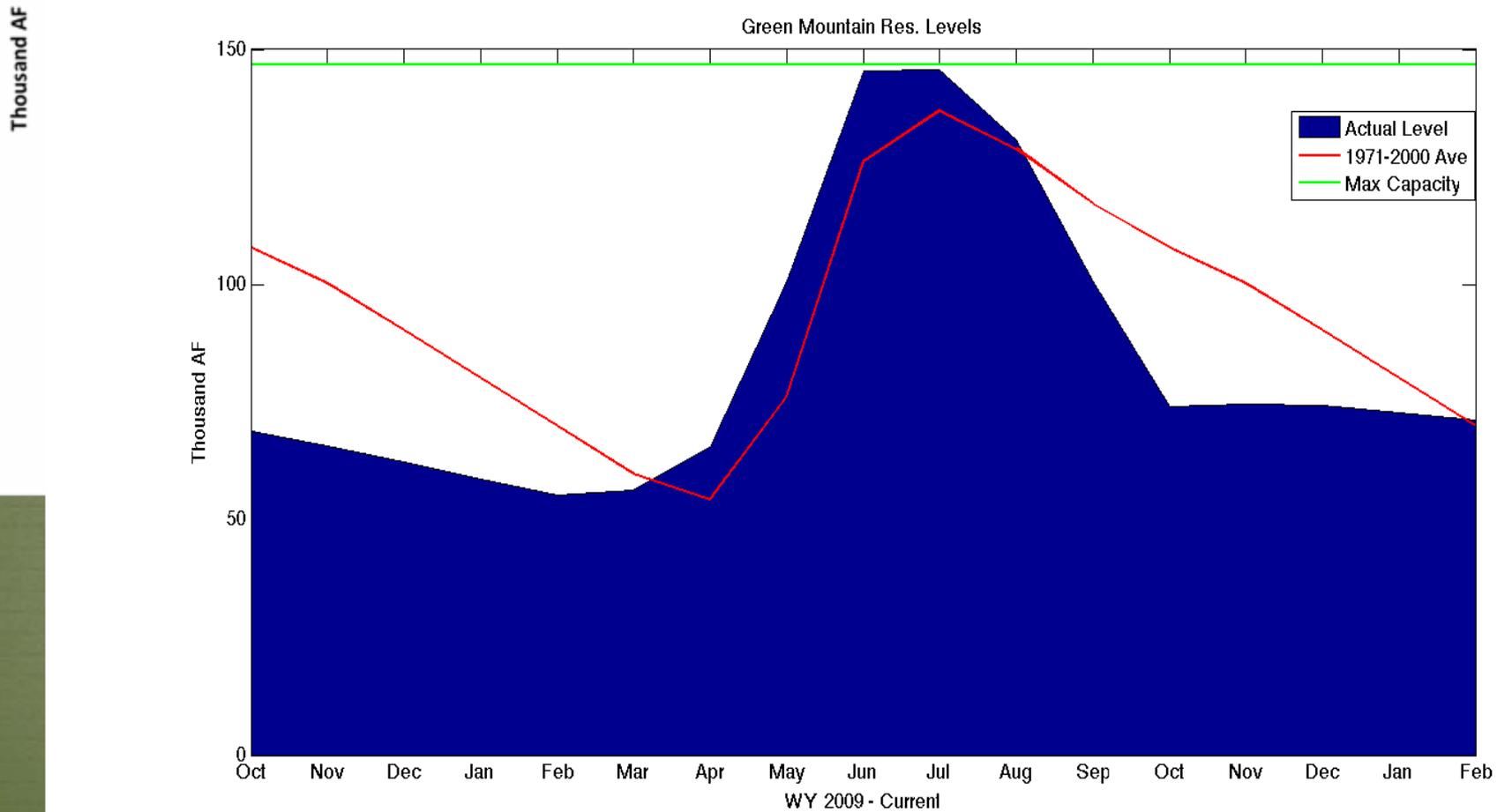
							
Low	<10	10-24	25-75	76-90	>90	High	
	Much below normal	Below normal	Normal	Above normal	Much above normal		



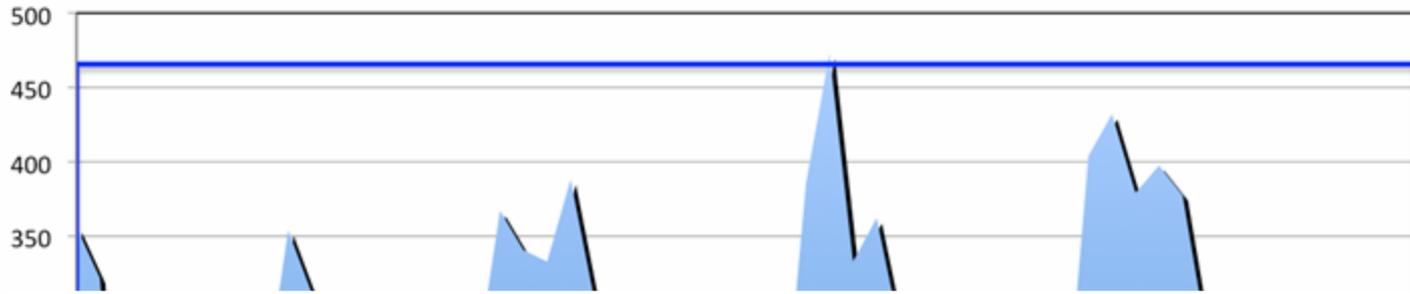
Reservoir Update



Green Mountain February Reservoir Storage



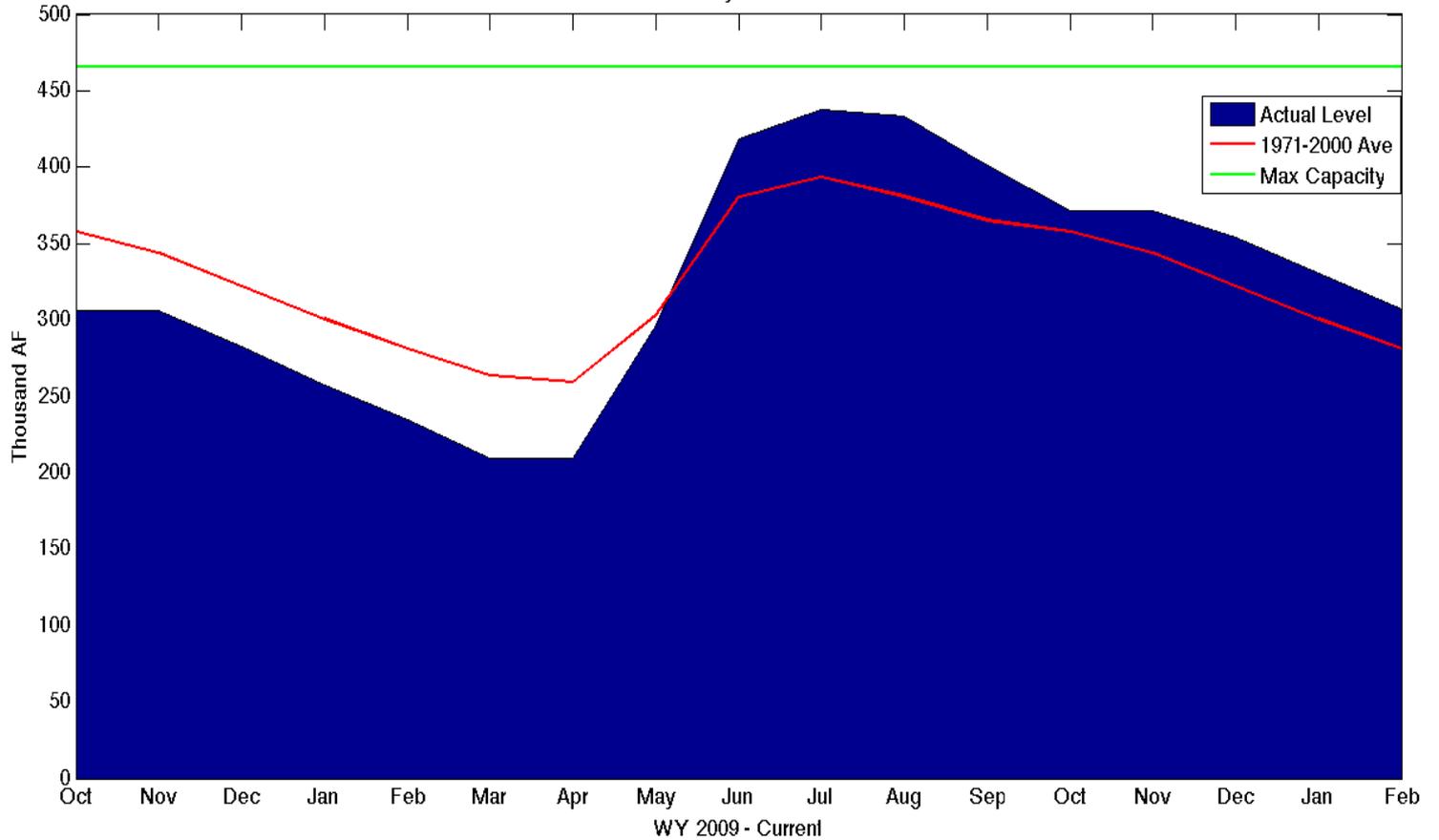
Lake Granby February Reservoir Storage



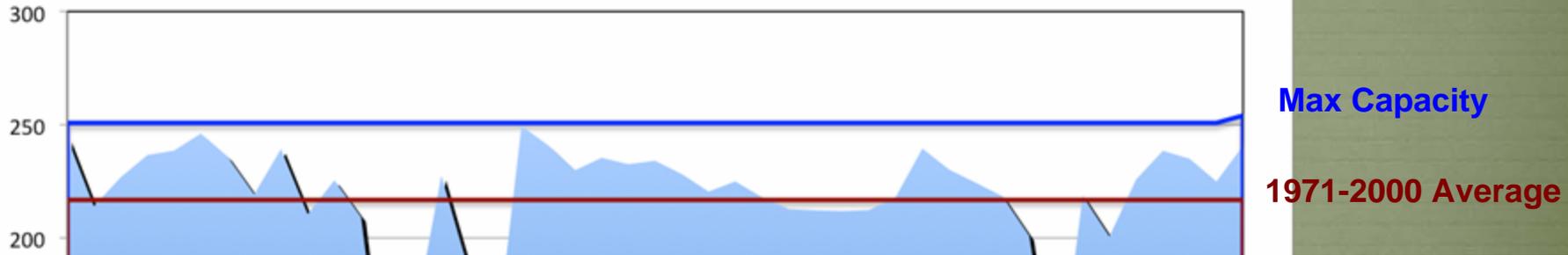
Max Capacity

Thousand AF

Lake Granby Res. Levels

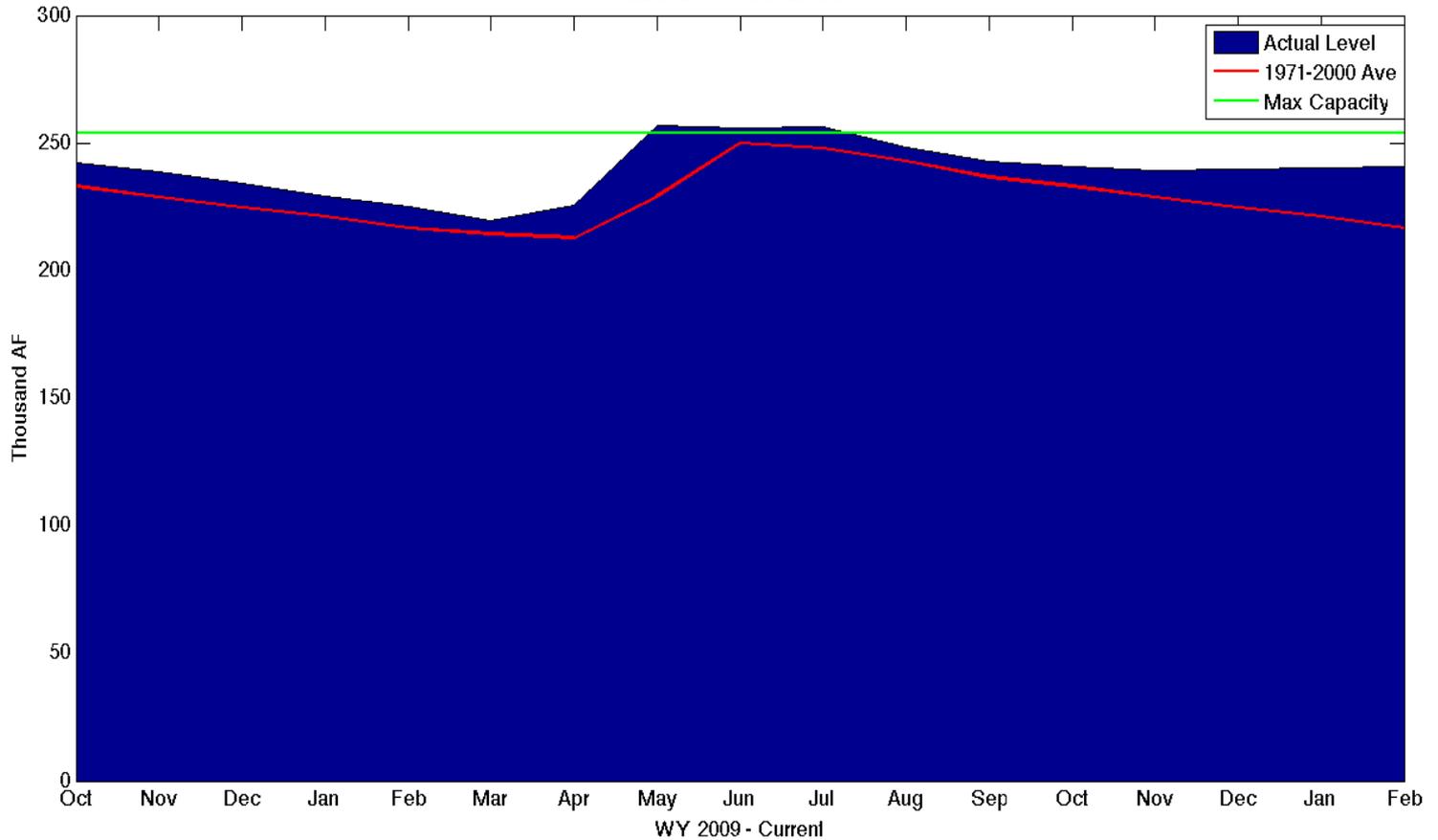


Lake Dillon February Reservoir Storage

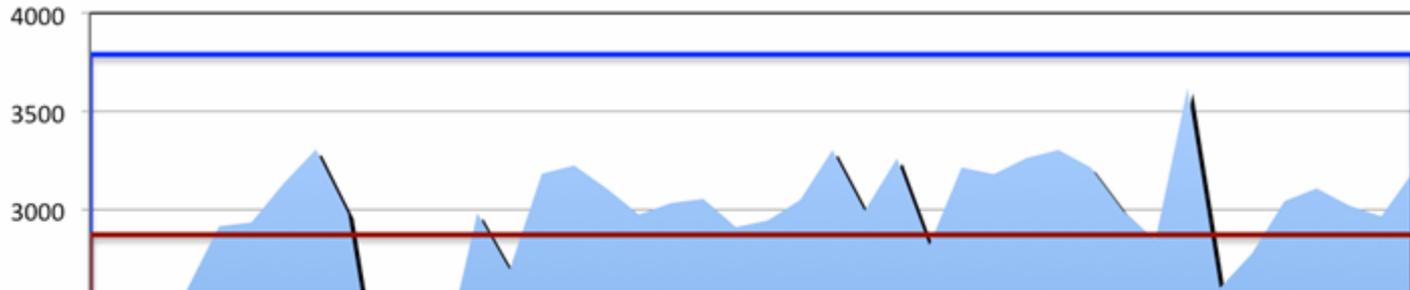


Thousand AF

Lake Dillon Res. Levels



Flaming Gorge February Reservoir Storage

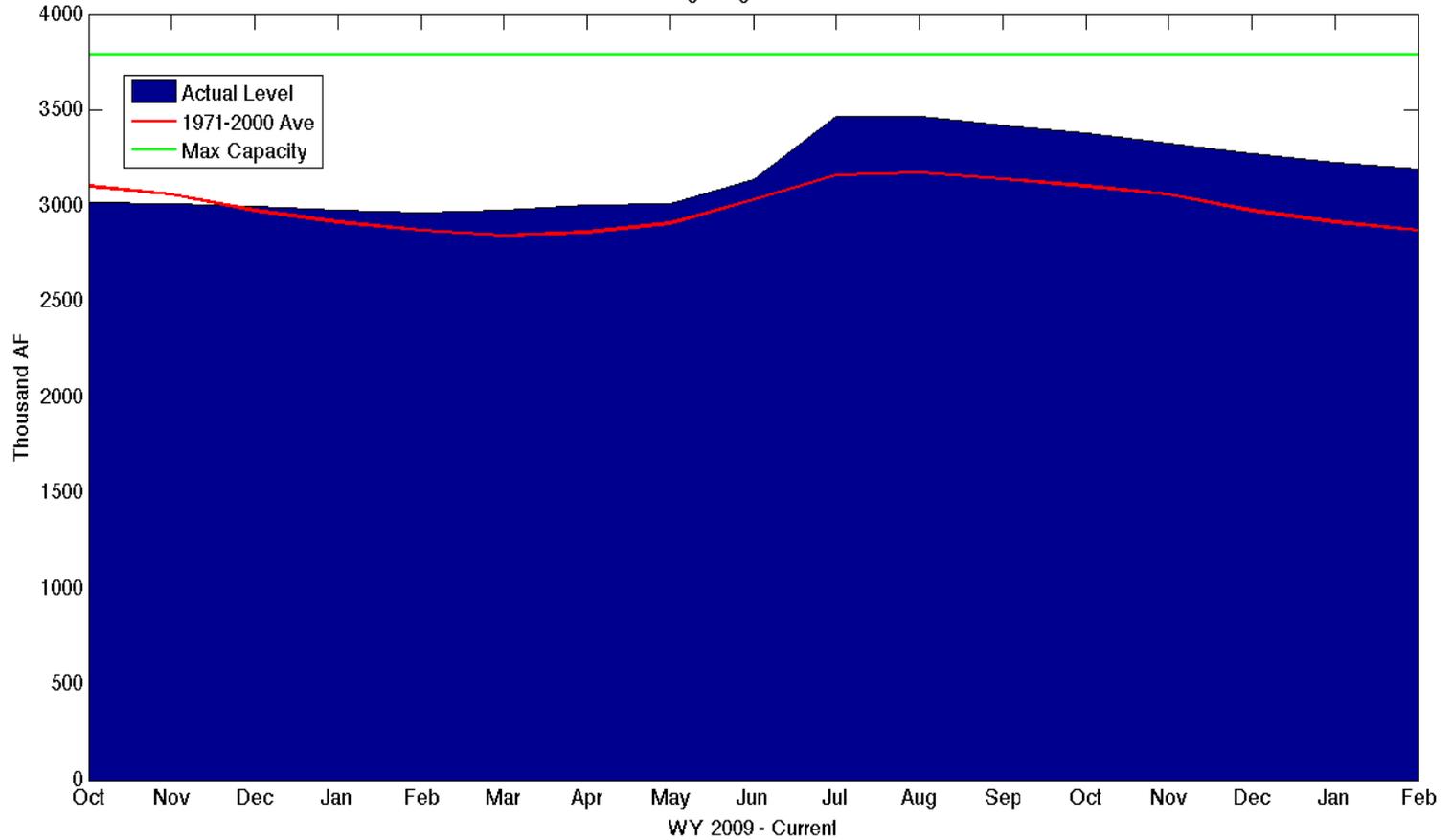


Max Capacity

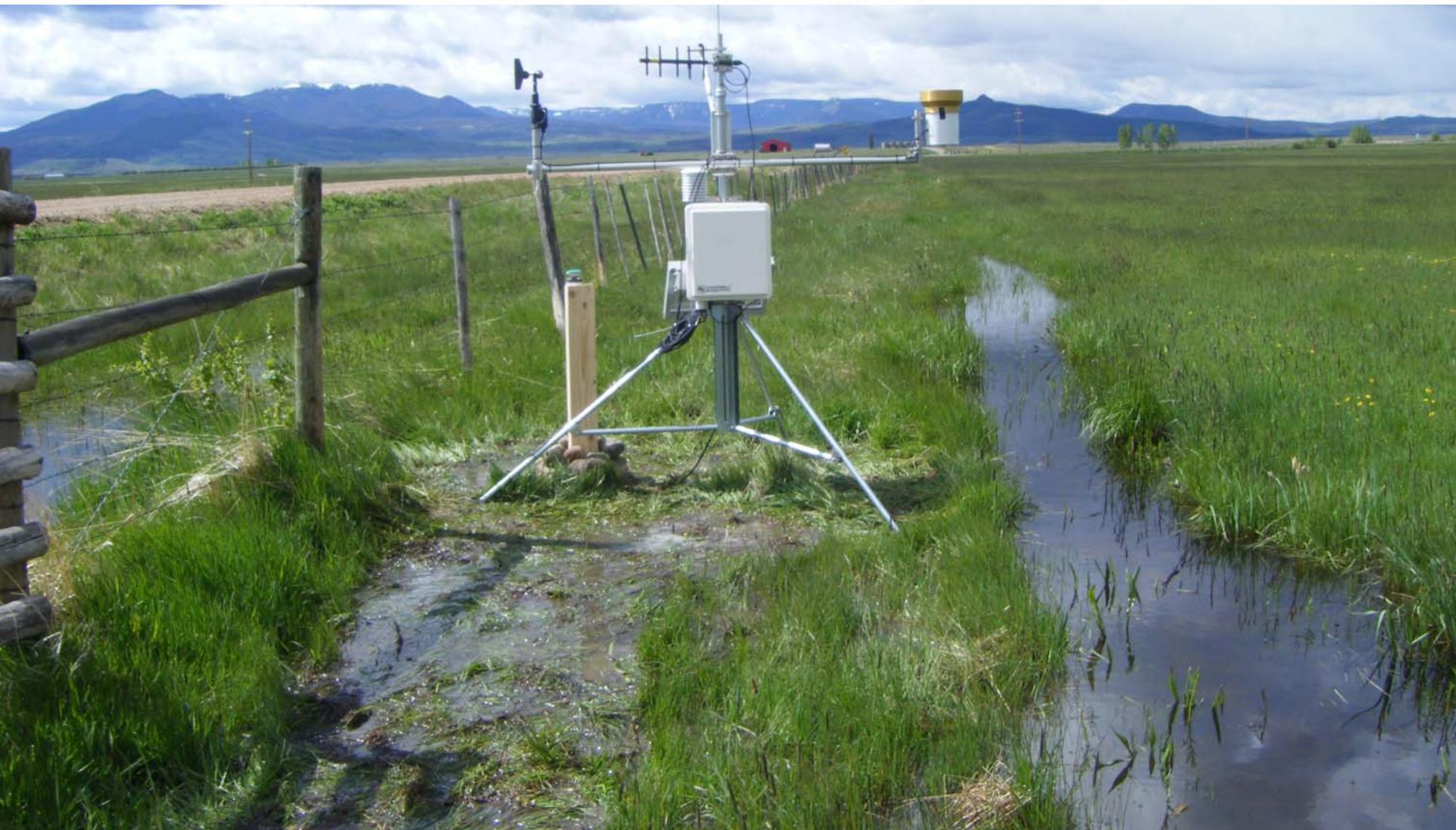
1971-2000 Average

Flaming Gorge Res. Levels

Thousand AF

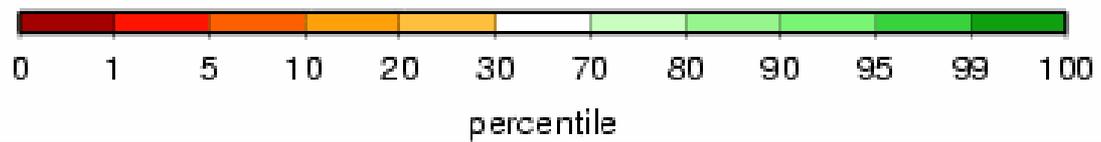
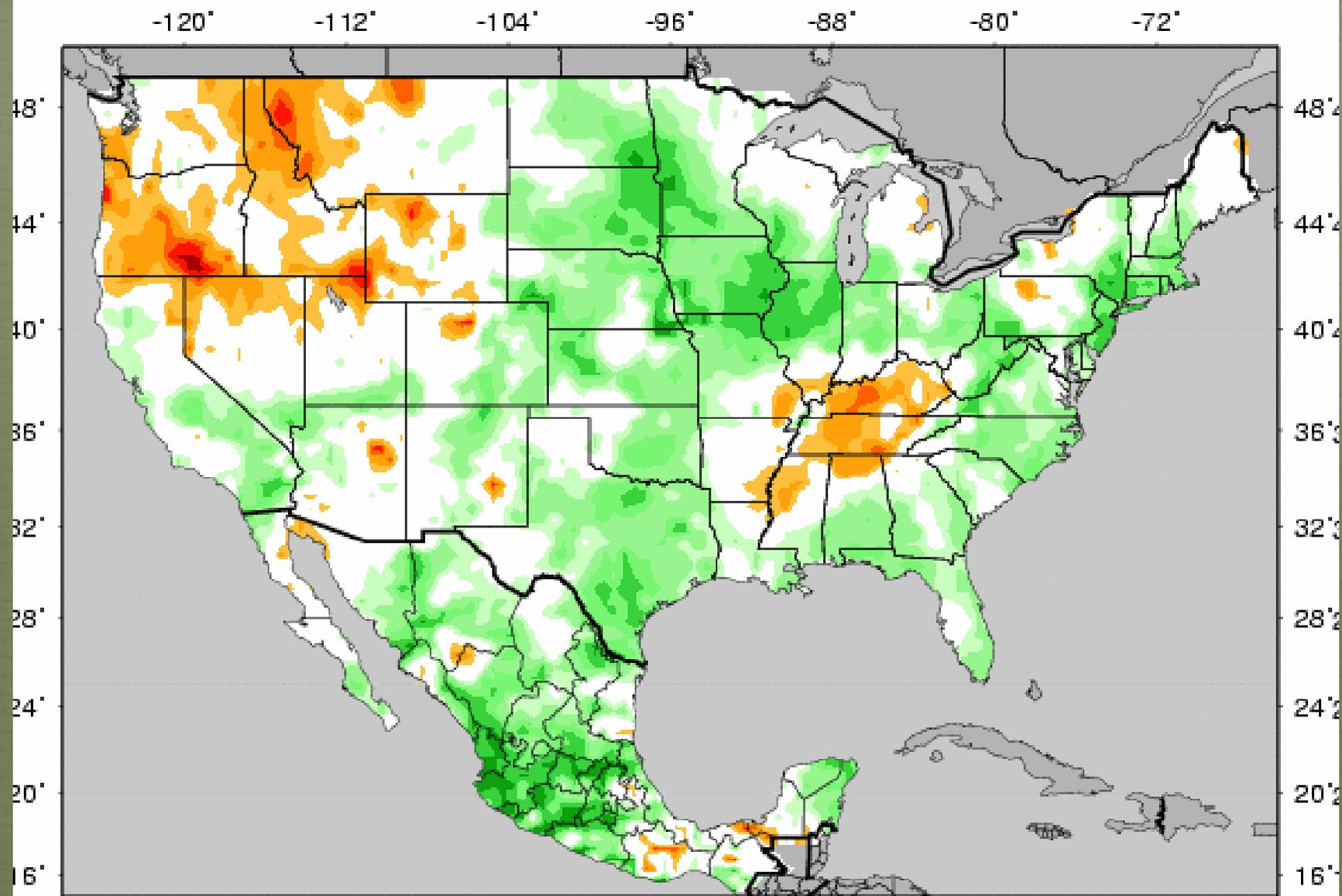


Water Demand



VIC Total Moisture Storage Percentiles (wrt/ 1916-2004)

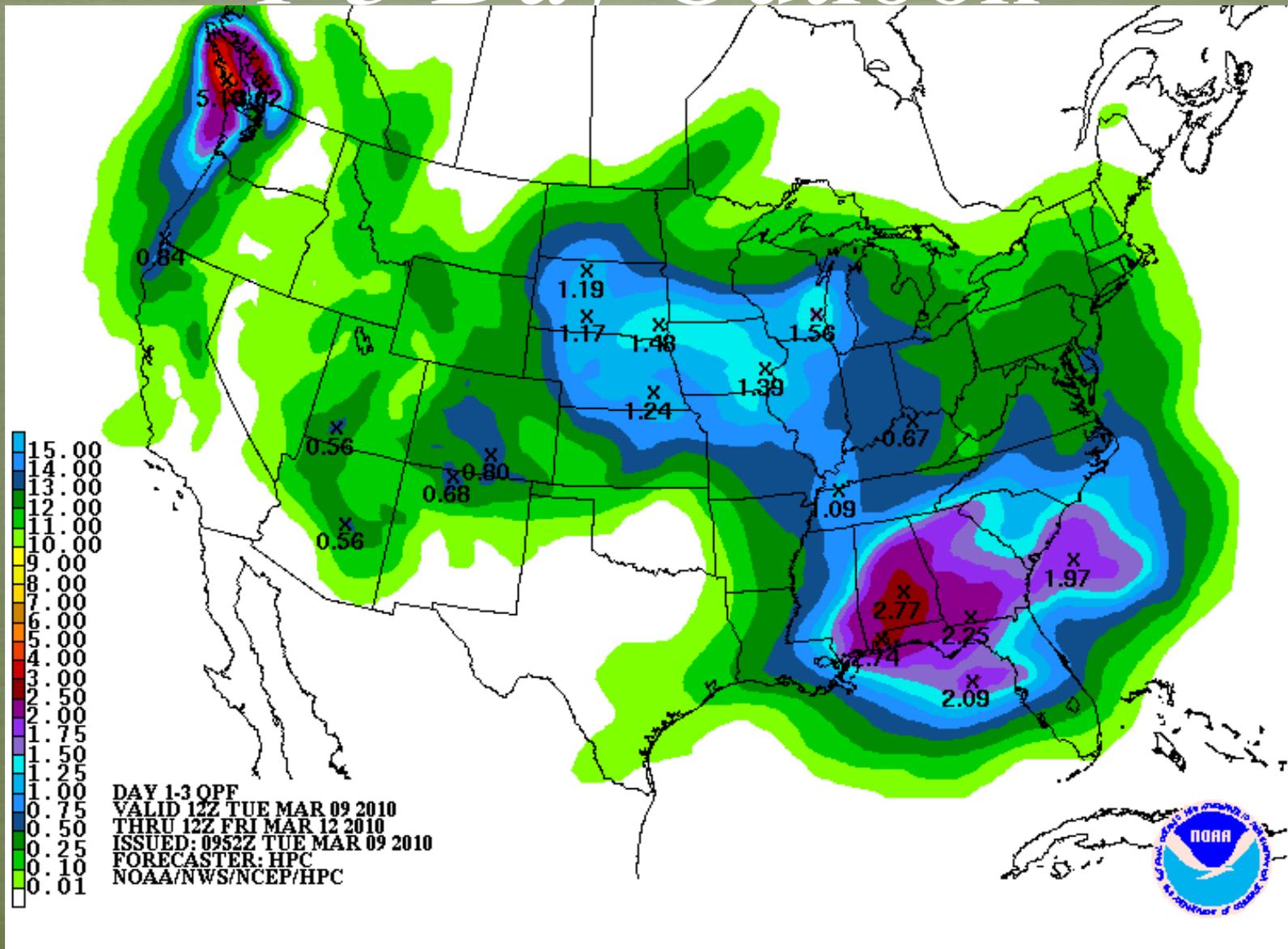
20100307



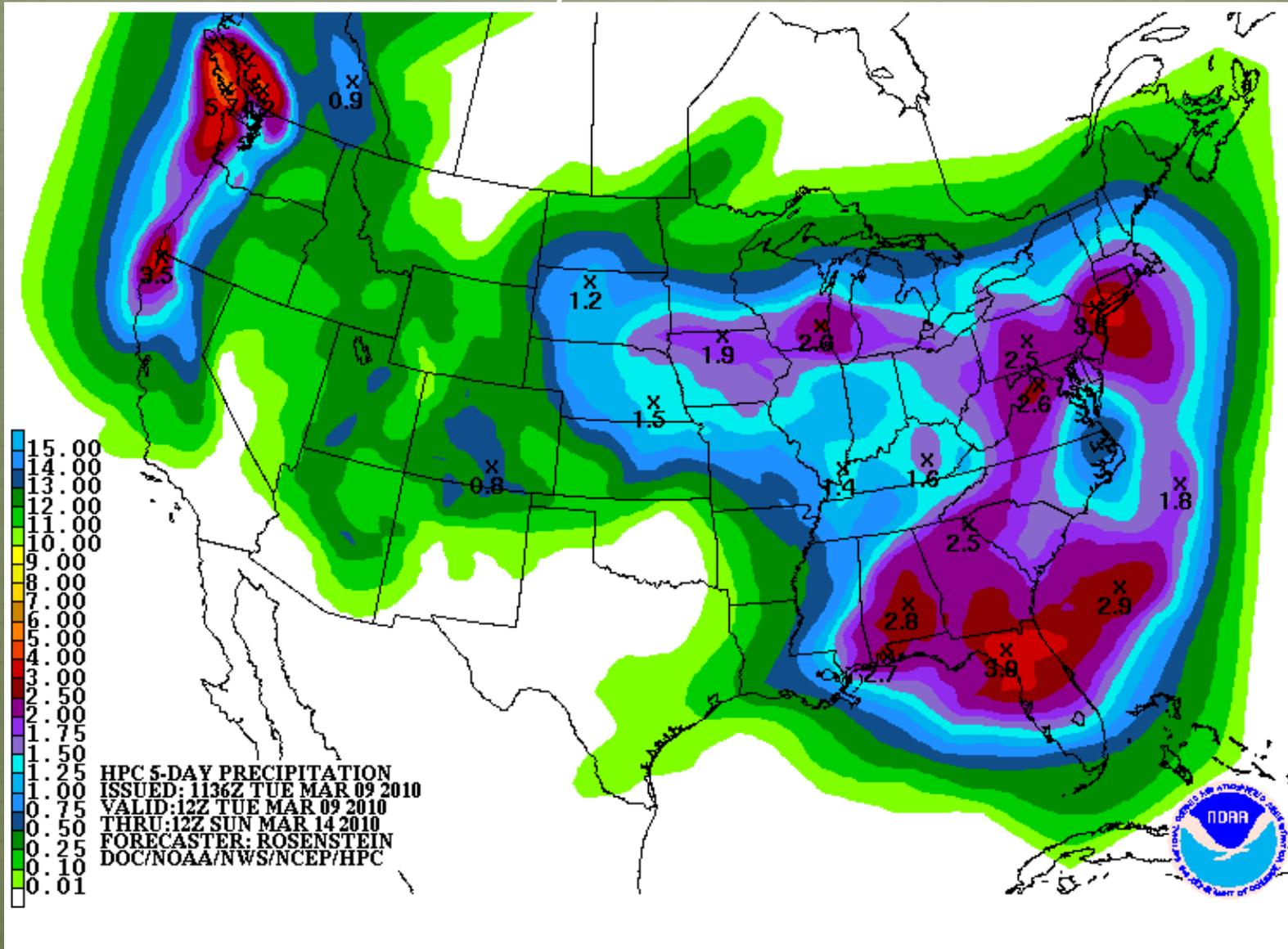
Precipitation Forecast



1-3 Day Outlook

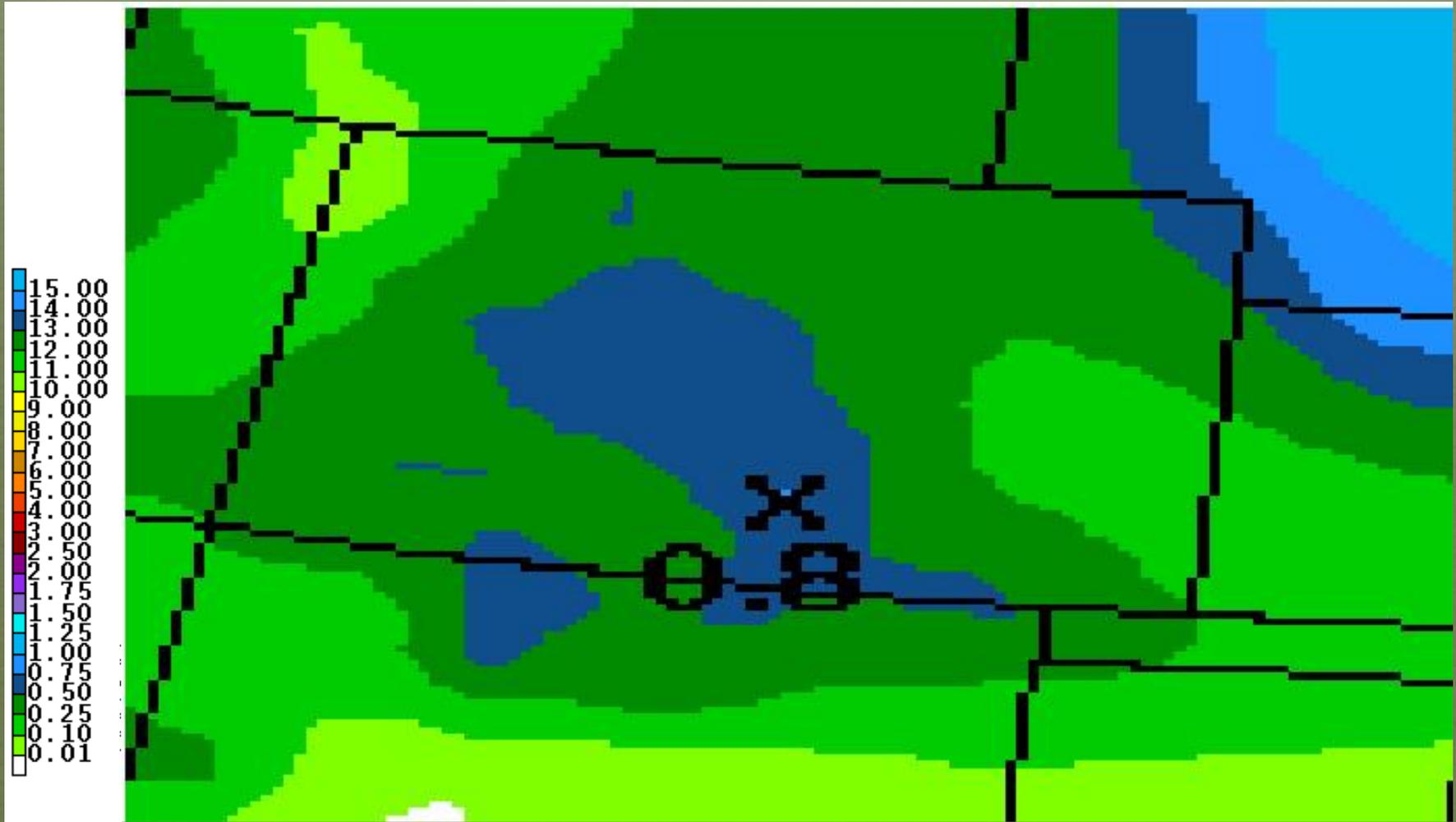


5 Day Outlook



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

5 Day Outlook Colorado



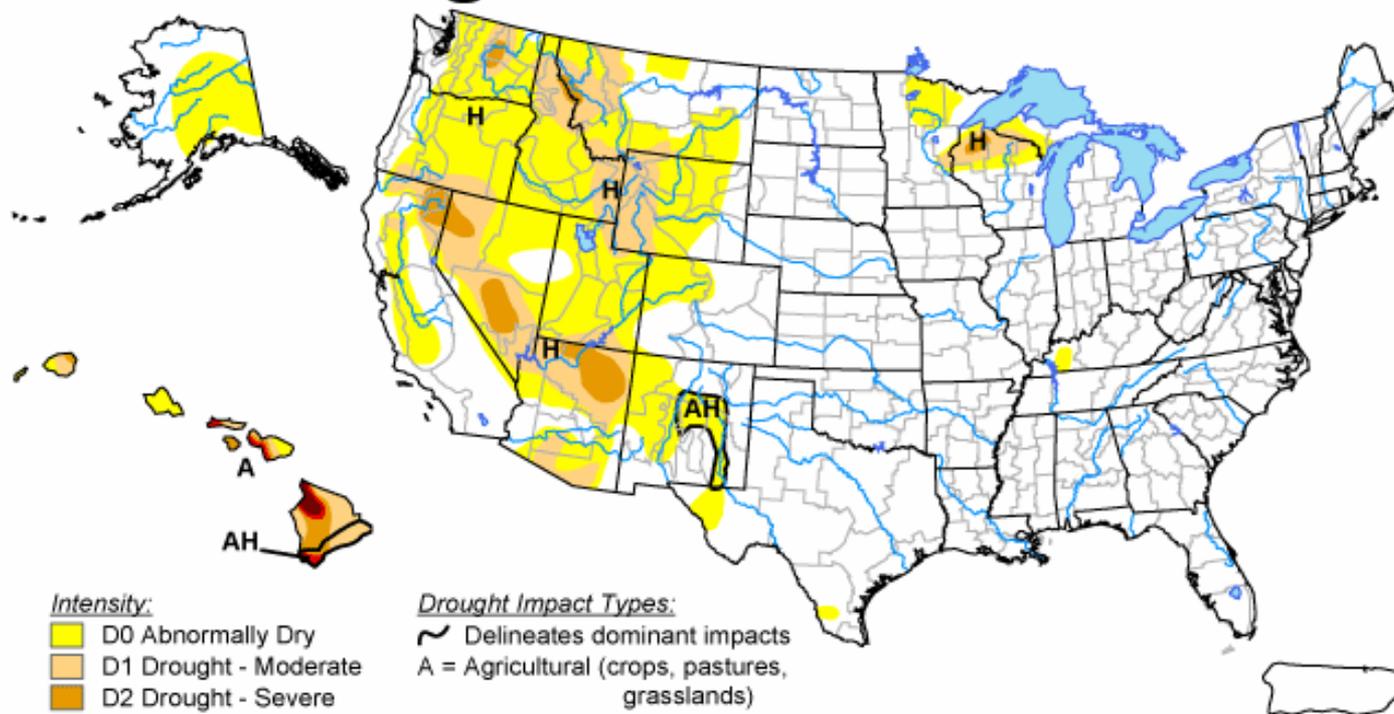
<http://www.hpc.ncep.noaa.gov/>

Recommendations

U.S. Drought Monitor

March 2, 2010

Valid 7 a.m. EST



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe
-  D3 Drought - Extreme
-  D4 Drought - Exceptional

Drought Impact Types:

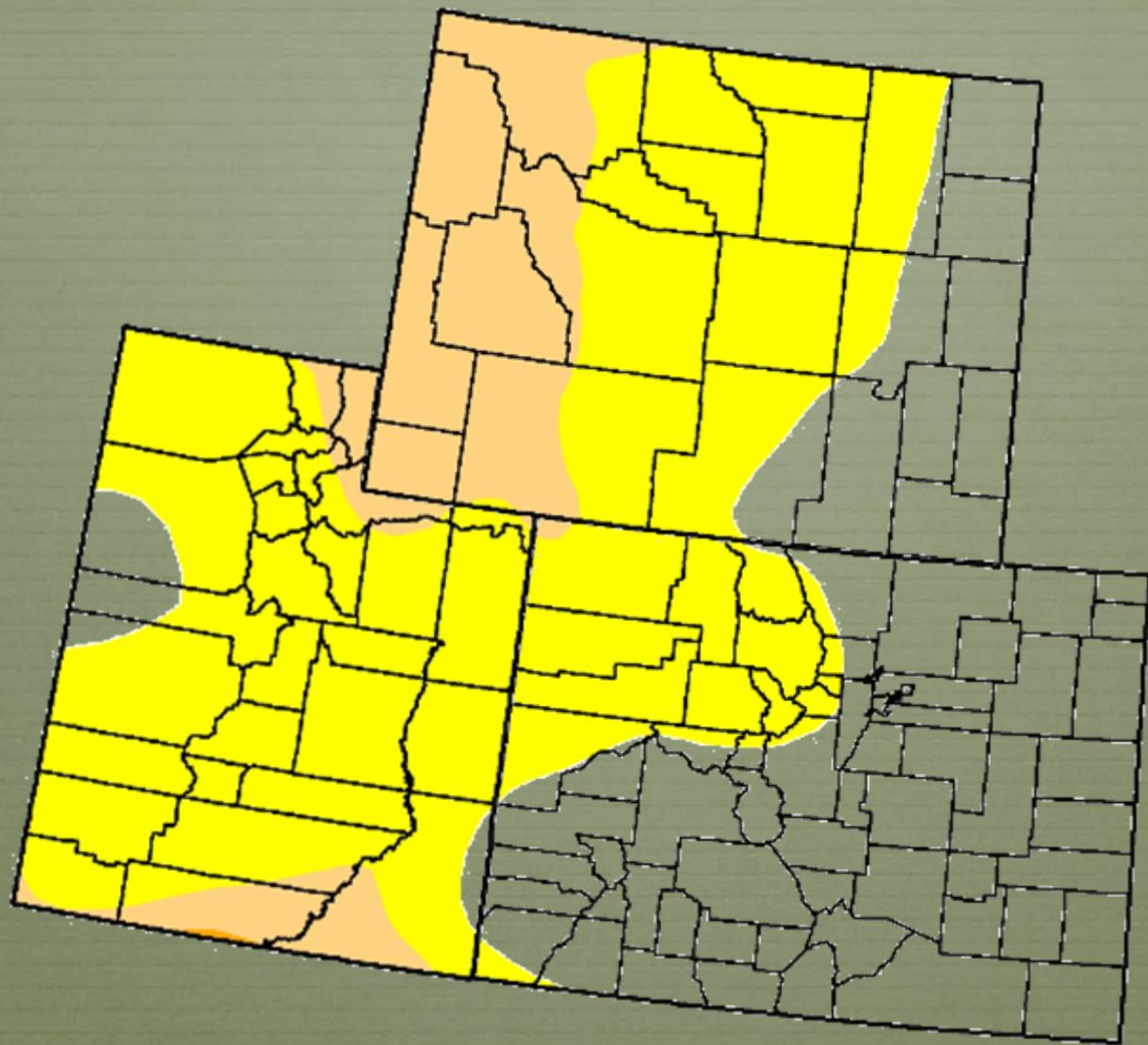
-  Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, March 4, 2010
Author: Rich Tinker, NOAA/NWS/NCEP/CPC



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NIDIS - UPPER COLORADO BASIN PILOT PROJECT

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.